



# A COLLATION OF ANTHROPOMETRY

BY

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PREFACE BY

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UNIVERSITY OF PENNSYLVANIA

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VOLUME I

A-H

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13. ABSTRACT  This collation is a critical comparison of measuring techniques and anthropometric data from 48 American and foreign sources. Approximately 2000 dimensions cover the anthropometry from 16 countries. All titles and descriptions of dimensions from foreign references are presented in the original language as well as in English; in many instances the collation presents translations into English for the first time of classic anthropometric techniques that serve as the basis of the art. The presenta- tion is such that each entry is complete in itself. All equivalent and nonequivalent dimensions of the same or similar title (or description) are cited and explicit differ- ences, if any, are quoted. References to other anthropometric dimensions and data permit easy and quick comparisons, selection of appropriate dimensions, as well as precise understanding of measuring techniques. The data and techniques described are of direct use in the design of all types of equipment requiring the human operator; in the design and sizing of clothing; and will have academic, medical, and other biological applications.			

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Mr. Ladd	Chief of Bureau
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20	Miss Gandy	Miss Gandy

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## Anthropometry

Anthropology

**Security Classification**

A Collation of  
ANTHROPC METRY

by

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Kenneth W. Kennedy

Aerospace Medical Research Laboratory

Preface by

Wilton M. Krogman, PhD, LLD, DSc  
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March 1971

VOLUME I

A - H



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One of our cited references states, "The great era of anthropometry has long ago come to an end. As a field of research it has occasionally been said to be obsolete and definitely passé." We dedicate these volumes to our colleagues who, by applying anthropometric data to the solution of innumerable design problems, have helped stay that verdict.

## PREFACE

My earliest training in the scientific method was from the late Professor Anton J. Carlson ("Ajax") in the 1920's at the University of Chicago. Time and again he'd admonish us, "Ladies und chentlemen, you must always ask de qvestion, 'Vat iss de effidence?' " (I trust I do justice to his Swedish accent.) The "effidence" means that one must look to *every aspect of the data and their interpretation*. Not the least of the scrutiny must be methodology: careful and precise definition of technique so that the reader may know not only *what* was done but precisely *how* it was done. I venture to sum this up in one word: COMPARABILITY.

Nowhere is this more compelling than in anthropometry, involving, as it does, careful determination of land-marks (or end-points) and equally careful definition of the measurement both in terms of what it is and how it was taken.

When Kennell Kennedy asked me to write this Preface — after he'd told me something about the *Collation* — I said "yes" without hesitation. I've measured skulls, bones, heads, faces, jaws, arms, legs, for over 40 years, and I've written reports about all of my work. I did more, of course, for I attempted to relate my findings to those of other workers on similar mensurational chores. Thus I learned the hard way that often there were too many or deviant ways to measure the same thing; more, I learned how often definition and execution lacked clarity and precision.

In the mid 30's, W. Junk, then Editor of *Tabulae Biologicae*, asked Dr. T. Wingate Todd to do a volume on "Growth of Man." Todd assigned it to me. With the aid of the Library of Congress and many University Libraries, I annotated some 600 articles on child growth, 1926-1939, from all over the world (using translation services). I threw out nearly one-half of the studies for inadequacies of sample size, poor statistical analysis, AND sloppy definition of measurements so that comparability was poor or non-existent. The result is Vol. XX of *Tab. Biol.*, 1941.

In 1956-1957 I ran into even worse trouble. Sassouni and I prepared a "Syllabus on Roentgenographic Cephalometry", I doing the historic resume (the analysis of the literature). Here carelessness was compounded by lack of knowledge — clinicians using mensurational techniques on tracings of head-films, going to a craniometry imperfectly understood, and, worst of all, to an over-all system of measurements never intended to elucidate the dynamics of cranio-facial growth-change. The collation of these data was an almost endless chore. When it was done I found that I had winnowed out some 100 end-points and/or measurements or angles that were so much chaff.

The scientists who work on problems of human engineering — problems which focus on *both* form and function of the human body in action — know that TOTAL precision is the only acceptable standard. This totality must begin with mensurational techniques that are uniform in definition and in execution, i.e., end-points and their location, measurements and how they are taken. The type of measurement and why it is taken is, of course, related to the research design for the problem at hand.

I have dipped into this *Collation* on a sampling basis, choosing measurements at random. In no instance was I able to fault it. It is uniformly written, carefully cross-referenced, and explicit in ultimate detail . . . "Seek, and ye shall find"!

No one who has not done this sort of careful compilation can appreciate the enormous, meticulous care involved. It is done, in first instance, because, scientifically, it is the right and necessary thing to do. But that is really not enough, for in last analysis there is the motivation not only of the scientist, but of the man who must serve his fellow-man. This *Collation* may be a chore of scientific obligation. To me it is more: a labor of love, of complete dedication to the essence and spirit of knowledge and truth. We are indebted to John W. Garrett and Kenneth W. Kennedy.

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## FOREWORD

The work presented in this book was performed under Project 7184, "Human Performance in Advanced Systems," Task 718408, "Anthropology for Design," in the Anthropology Branch, Human Engineering Division, Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio.

The authors sincerely thank the following people, all of whom have generously contributed to our final product. As each contribution was of immense importance to us at the time it was given, we have listed these acknowledgements in chronological order, rather than by the magnitude of their donation.

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We give our sincerest thanks!

This technical report has been reviewed and is approved.

CLINTON L. HOLT, Colonel, USAF, MC  
Commander  
Acrospace Medical Research Laboratory

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## INTRODUCTION

During the past several years we have observed that researchers and designers are frustrated when they find it necessary to compare anthropometric data from different populations. Finding the data is only the beginning. To determine if the data are truly comparable many things must be considered — the description of the dimension, the measuring technique, the position of the subject, the interpretation of anatomical landmarks, etc.

To help those scientists and engineers who face problems of comparing anthropometric data we have reviewed and collated data from 47 sources, 39 of which are considered primary sources of statistical anthropometric data. Of the 39 primary data sources, 36 have been published since 1940; the remaining three are in final preparation. Sixteen countries are represented in the sources. Approximately 2000 descriptions of anthropometric data were examined critically.

In addition to the data-sources, we reviewed eight classic works and include them — primarily as references for anthropometric technique. They include Martin (ref 27), Martin-Saller (ref 28), Hrdlička (ref 41), Montagu (ref 30), Comas (ref 11), Tufts (ref 5), the Report of the International Commission meeting at Monaco in 1906 (ref 36), and the Report of the International Commission meeting at Geneva in 1912 (ref 41).

Our criteria for selecting sources of anthropometric data were as follows:

- the data were obtained during a formal anthropometric survey
- the subjects were representative of a discrete, identifiable, adult national population
- the source included descriptions of the dimensions or indicated where the descriptions could be found
- the body of data must have included considerably more than just age, height, and weight
- the data were published since 1940, a date chosen to include the surge of anthropometric activity beginning during World War II
- the data were measured directly on the body and include only linear dimensions.

There are several exclusions that may seem inconsistent. These include secondary and derived measurements; measurements taken from photographs; certain sources that would otherwise qualify, such as a survey of USAF recruits; and others that we became aware of too late to be included. For these we offer neither apology nor excuse.

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Each of the anthropometric dimension titles is presented separately. Each presentation includes the following information:

1. *Dimension Title* — This is the title of the dimension as stated in its source. English translations of titles from foreign language sources are contained within brackets. We have inserted words in a few titles to help clarify meaning. These insertions are also within brackets.

2. *Source* — This is a coded listing of the source. A complete list of codes is found beginning on page 6.

3. *Dimension Description* — This is a verbatim description of the dimension as found in the source. Translations of descriptions are contained within brackets. For clarity and completeness we have interrupted the description with inserts of several types. These are set off from the regular text of the description in different ways.

A. *Daggers* — Those inserts that are set off by daggers are verbatim phrases and other words that have been taken from another place in the source, and therefore appear out of sequence. They comprise general information intended to make the description as complete as possible.

B. *Brackets* — Information gained from photographs and drawings found in the source are inserted and bracketed. Brackets have also been used when inserting connecting words to join phrases and facilitate smoother reading. When the origin of a description is known by us to be other than that cited in the source reference, the code for the actual source is placed in brackets at the end of the description. Frequently it was necessary to calculate certain of the statistical values. These, also, were enclosed in brackets. Additionally, as indicated above, brackets are also used to enclose translations.

C. *Daggers and Italics* — Several source authors have defined anatomical landmarks in a different section of their publication from the dimension descriptions. Since it is essential that their interpretations of the landmarks are understood by the reader, we have inserted the essence of these landmark definitions within the dimension descriptions and have offset these quotations by daggers and italics.

4. *Summary Statistical Data* — In this section we list four categories of statistical data:

N: The number of subjects

$\bar{X}$ : The arithmetic mean (the sum of the values divided by their number)

SD: The standard deviation (the root-mean-square of the deviations from the arithmetic mean)

V%: The coefficient of variation (a restatement of the standard deviations as a percentage of the arithmetic mean)

In a few instances the median or 50th percentile value is given in lieu of the arithmetic mean.

Certain sources do not present any of these four categories of data. Others, such as MARTIN, present data on some of their dimensions, but do not meet our criteria for a data source. These omissions are indicated by the phrase "No Data Available." Some do not contain all of our four categories and some do not contain both English and metric units. For these sources, we have estimated the missing information when possible and converted the data into the omitted units when necessary. It was possible in some cases to calculate  $\bar{X}$ s for reference BULGARIA and to estimate SDs for references

BULGARIA, U.S. ADULTS, and FOOT.<sup>1</sup> These estimates are included within brackets and are listed as  $\bar{X}$  for BULGARIA and Est SD for all three. When V% is not reported in the original source, we were sometimes able to calculate it. When it was calculated, we reported it within brackets. It was reported as Est V% if the SD and/or the  $\bar{X}$  were also reported as estimates. When sufficient information to estimate  $\bar{X}$ , SD or V% was lacking, the listing for the missing data reads NDA (No Data Available).

5. *Similar Dimensions* — This section contains dimensions having a general likeness in title or body part measured. Since similarity does not necessarily imply equivalence, we have divided the dimensions appearing under this heading into *Equivalent*, *Not Equivalent*, and *Indeterminable* categories. All placements in this section are based on our analysis of the descriptions of the dimensions and on other information presented in some form by the original source authors.

A. *Equivalent* — Dimensions listed as Equivalent are those dimensions which are "virtually or in effect identical" (ref 32, p 865) to the reference dimension. Differences in the statistical data for equivalent dimensions between different populations can be assumed to represent real anthropometric differences.

B. *Not Equivalent* — Dimensions are listed as Not Equivalent if they have some general likeness to the reference dimension in title or description, but differ from it in some important way, such as in position of the body, pressure with which the measuring instrument is applied to the skin, and definition of anatomical landmarks. Each dimension judged by us to be similar, yet not equivalent to the source dimension, is listed under this heading by source and title. A short quotation from the description is given to illustrate a difference. At least one difference is quoted; there may be others.

C. *Indeterminable* — There are instances in which certainty of placement was considered impossible because complete information regarding the exact nature of the dimension is not available. These are listed in the Indeterminable category. In a given set of similar dimensions, certain of them may be either Equivalent or Not Equivalent with reference to a particular source, yet remain Indeterminable to others.

Categorical placement was done usually on the basis of differences in the authors' descriptions of the dimensions. In a few instances we were forced to resort to other evidence, such as illustrations, to obtain complete information. Personal knowledge of the techniques of the authors, or of the survey itself, sometimes helped determine appropriate placement.

Remember, we are concerned with the dimensions themselves and not with the values obtained by measuring those dimensions. For instance, while the arithmetic mean values for *Hip Breadth* and *Shoulder-Elbow Length* are approximately equal, certainly the two dimensions are not equivalent. A more subtle example is the placement of the various dimensions entitled *Eye Height, Sitting*. These are taken three

1. The means reported for BULGARIA were computed as the weighted averages of the published means for ages 18 through 26; the corresponding standard deviations are the square roots of the weighted averages of the variances for these same years, adjusted for the differences in yearly mean values. The standard deviations for U.S. ADULTS were computed, for each variable, by subtracting the sum of the reported percentiles below the 50th (1st, 5th, 10th, 20th, 30th, 40th) from the sum of the complementary percentiles and dividing the difference by 13.74. The value, 13.74, represents the size, in standard deviation units, of the computed difference for normal distributions. The standard deviations for FOOT were determined by dividing the published inner 98% range by 4.65 and the inner 95% range by 3.92 and averaging the results. Again, the two divisions correspond to the widths of these ranges for normal distributions. (personal communications, E. Churchill, Antioch College)

different ways: to the internal canthus, to the pupil, and to the external canthus. These may be equivalent in mean values, perhaps, but definitely not equivalent as anthropometric dimensions.

6. *References to Other Dimensions* — When, in our opinion, it might be in the reader's interest to refer to other dimensions, titles of such dimensions are listed under *See Also*. The selection of these dimensions was based on our experience in the use of anthropometric data. Obviously, we cannot predict all such dimensions. Therefore, it is by no means considered a complete cross-reference system. We are sure there are many more that might, quite reasonably, be added.

All of the above categories of information are cited in the annotated entries beginning on page 9. We hope that examination of these pages will clear up any remaining questions regarding procedures we have followed.

A word or two about translations. We received considerable assistance from various people with the translations into English of the sources code-named BELGIUM, FRANCE '55, FRANCE '65, MARTIN, and MARTIN-SALLER. However, because of the technical nature of the dimension descriptions, we have changed and altered the proffered translations to our own tastes in English; hence, transferring full responsibility to ourselves. This we willingly accept. We have translated titles to their generally accepted English equivalents; thus such resultant apparent inconsistencies as *Breadth of the Mouth*, but *Nose Breadth* where the original German titles are *Breite der Mundspalte* and *Breite der Nase*, respectively. The translation of the 1906 Monaco Conference is reported by A. Hrdlička (ref. 41: pp 191-201). The W.H.L. Duckworth account in English of the 1912 Geneva Conference is one of three semiofficial versions issued by the Conference. The material from source COMAS is from the revised and enlarged English edition.

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It is not necessary to say a great deal about how to use this *Collation*. It can serve many purposes. It was put together for groups such as anthropologists, medical researchers, industrial designers, garment workers, and human factors engineers. It is intended to serve those whose pursuits lead them daily into contact with anthropometry as well as those who only occasionally require information regarding a dimension. The initiated will find his information very quickly, since arrangement of the entries is alphabetical by dimension title. Those users perhaps less familiar with anthropometry may find it necessary to use the index, arranged to provide access through dimension titles, coded source reference, common names of the general parts of the body on which the dimension is taken and general *type* of dimension, such as Breadth, Length, etc.

As previously stated, we consider equivalent dimensions as being "virtually or in effect identical." If we have determined as equivalent a particular dimension measured on a Japanese military population and on an American military population, then, *other considerations such as sex and age being equal*, statistical differences in this dimension represent real differences between the two populations. Unfortunately, our experience reflects the necessity to say what one would assume to be completely obvious; namely, that no legitimate purpose is served when direct comparisons be-

tween populations are made on the basis of non-equivalent dimensions.

Finally, to assist those users who require percentile data, we have included the table below. This table is based on a normal distribution of values. Since biological data seldom, if ever, assume a normal distribution, values derived through the use of this table can only be considered as estimates. We feel, however, that for most applications estimates of percentiles derived from this table can be used with reasonable confidence.

TABLE FOR ESTIMATING SELECTED PERCENTILES (ref 10)

3rd Percentile	= $\bar{X} - 1.88 \times SD$
5th Percentile	= $\bar{X} - 1.65 \times SD$
10th Percentile	= $\bar{X} - 1.28 \times SD$
20th Percentile	= $\bar{X} - 0.84 \times SD$
25th Percentile	= $\bar{X} - 0.67 \times SD$
50th Percentile	= $\bar{X}$
75th Percentile	= $\bar{X} + 0.67 \times SD$
80th Percentile	= $\bar{X} + 0.84 \times SD$
90th Percentile	= $\bar{X} + 1.28 \times SD$
95th Percentile	= $\bar{X} + 1.65 \times SD$
97th Percentile	= $\bar{X} + 1.88 \times SD$

## LISTING OF THE COLLATED SOURCES BY CODE NAME

AAF	Randall, F. E., et al, <i>Human Body Size in Military Aircraft and Personal Equipment.</i>
ARMY '66	White, Robert M., <i>U.S. Army Anthropometry — 1966.</i>
ARMY ARMORED	Ashe, W. F., <i>Anthropometric Measurements.</i>
ARMY AVIATORS	White, Robert M., <i>Anthropometry of Army Aviators.</i>
ARMY QM	Randall, F. E., et al, <i>Survey of Body Size of Army Personnel — Male and Female Methodology;</i> and Hansen, R., and D. Y. Cornog, <i>Annotated Bibliography of Applied Physiol Anthropology in Human Engineering.</i>
AUSTRALIA	Aird, W. M., F. R. Bond and G. M. Carrington, <i>Anthropometric Survey of Male Members of the Australian Army; Part 1, Clothing Survey.</i>  Carrington, G. M., <i>Anthropometric Survey of Male Members of the Australian Army; Part 2, Medical Survey.</i>
BARTER	Barter, J. T., and M. Alexander, <i>A Sizing System for High Altitude Gloves.</i>
BELGIUM	Evrard, E., <i>Relative Biometric Statistics of the Flying Personnel of the Belgian Air Force.</i>
BULGARIA	Анонимус, <i>Физическо развитие и дееспособност на населението в България от раждане до двадесет и шест години</i>
COMAS	Conias, Juan, <i>Manual of Physical Anthropology.</i>
FAA	Snow, C. C., and R. G. Snyder, <i>Anthropometry of Air Traffic Control Trainees.</i>
FOOT	Freeman, A., et al, <i>Foot Dimensions of Soldiers.</i>
FRANCE '55	Ducros, E., <i>Statistiques de biométrie médicale élémentaire relatives au personnel navigant de l'air Française.</i>
FRANCE '65	Anonymous, <i>Etude anthropométrique du personnel navigant Française de l'aéronautique civile et militaire.</i>
GENEVA	Duckworth, W.L.H., <i>The International Agreement for the Unification of Anthropometric Measurements to be Made on the Living Subject.</i>
HAND	Garrett, John W., <i>Clearance and Performance Values for the Bare-Handed and Pressure Gloved Operator.</i>

HANDS-FEMALE	Garrett, John W., <i>Anthropometry of the Air Force Females' Hand.</i>
HANDS-MALE	Garrett, John W., <i>Anthropometry of the Hands of Male Air Force Flight Personnel.</i>
HOOTON	Hooton, E. A., <i>A Survey in Seating.</i>
HRDLICKA	Stewart, T. D., Ed., <i>Hrdlička's Practical Anthropometry.</i>
INDIA	Mookerjee, M. K., and M. N. Bhattacharya, <i>Body Measurements in Relation to Cockpit Design.</i>
JAPAN	Oshima, M., et al, 航空自衛隊パイロットの身体計測 (Anthropometry of Japanese Pilots)
KOREA	Kay, Won Chuel, <i>Anthropometry of the ROKAF Pilots.</i>
MARTIN	Martin, R., <i>Lehrbuch der Anthropologie in Systematischer Darstellung.</i>
MARTIN-SALLER	Martin, R., and K. Saller, <i>Lehrbuch der Anthropologie in Systematischer Darstellung.</i> (This source cited only when a particular dimension description has been changed from the original MARTIN.)
MONACO	Papillault, G., <i>Entente internationale pour l'unification des mesures craniométriques et céphalométriques.</i>
MONTAGU	Montagu, M. F. A., <i>An Introduction to Physical Anthropology.</i>
MORANT	Morant, G. M., and D. C. V. Whittingham, <i>A Survey of Measurements of Feet and Footware of Royal Air Force Personnel.</i>
NATO	Hertzberg, H. T. E., et al, <i>Anthropometric Survey of Turkey, Greece, and Italy.</i>
NAVY RECRUITS	White, Robert M., <i>U.S. Navy Anthropometry (Recruits) — 1966.</i>
NORWAY	Udjus, Ludvig C., <i>Anthropometric Changes in Norwegian Men in the Twentieth Century.</i>
RAF-RCAF	Samuel, G. D., and E. M. B. Smith, <i>A Comparison of Seven Anthropometric Variables of American, British, and Canadian Pilots.</i>
THAI	White, Robert M., <i>Anthropometric Survey of the Royal Thai Armed Forces.</i>
THOUSAND AVIATORS	Oberman, A., et al, <i>The Thousand Aviator Study.</i>

TUFTS	<i>Anonymous, Handbook of Human Engineering Data.</i>
US ADULTS	<i>Stoudt, H. W., et al, Weight, Height, and Selected Body Dimensions of Adults. United States 1960-1962.</i>
USAF '50	<i>Hertzberg, H.T.E., et al, Anthropometry of Flying Personnel — 1950.</i>
USMC	<i>White, Robert M., U.S. Marine Corps Anthropometry — 1966.</i>
USN	<i>Gifford, E. C., et al, Anthropometry of Naval Aviators — 1964.</i>
VIETNAM	<i>White, Robert M., Anthropometric Survey of the Armed Forces of the Republic of Vietnam.</i>
WAC	<i>Randall, F. E., Survey of Body Size of Army Personnel, Male and Female; and Hansen, R., and D. V. Cornog, Annotated Bibliography of Applied Physical Anthropology in Human Engineering.</i>
WAF RECRUITS	<i>Daniels, G. S., et al, Anthropometry of WAF Basic Trainees.</i>
WASP	<i>Randall, F. E., et al, Human Body Size in Military Aircraft and Personal Equipment.</i>
WOMEN	<i>O'Brien, R., and W. C. Shelton, Women's Measurements for Garment and Pattern Construction.</i>
WORKING POSITIONS I	<i>Hertzberg, H. T. E., et al, The Anthropometry of Working Positions.</i>
WORKING POSITIONS II	<i>Alexander, M., and C. E. Clauser, Anthropometry of Common Working Positions.</i>

## SAMPLE ENTRIES — ANNOTATED

### GROESSTE BREITE ZWISCHEN DEN DARMBEINKAEMMEN [MAXIMUM BI-CRISTAL BREADTH]

Reference: MARTIN

◊ Source code. (See page 6)

Geradlinige Entfernung der beiden Iliocristalia †derjenige Punkt der Crista iliaca, der bei aufrechter Koerperhaltung am meisten seitlich vorspringt† voneinander. Stangenzirkel. Das Mass wird also aussen am Beckenkamm (d. h. am Labium externum der Crista iliaca) gemessen und das Instrument leicht angedrueckt.

[Straight line distance between both iliocristalia †that point on the iliac crest which protrudes most laterally when standing erect†. Beam Caliper. The measurement is taken laterally on the pelvic rim (that is, on the external lip of the iliac crest) with slight pressure on the instrument.]

No Data Available

⌞ This section is the authors' English translation of the text. It is enclosed within brackets.

Similar Dimensions:

◊ Each dimension listed under this heading has its own entry sheet.

Equivalent:

None

Not Equivalent:

AAF: Bi-Iliac - A firm pressure dimension  
ARMY ARMORED: Bi-Iliac - A firm pressure dimension  
ARMY QM: Bi-Iliac - Pressure  
HRDLICKA: Breadth of Pelvis - sufficient pressure to feel bone  
TUFTS: Bi-Iliac - A firm pressure dimension  
WASP: Bi-Iliac - A firm pressure dimension

Indeterminable:

In the following references, pressure is not specified.

BULGARIA: Bicristal Breadth  
COMAS: Bi-Iliac or Pelvic Breadth  
GENEVA: Bi-Cristal Diameter  
MONTAGU: Bi-Iliac or Pelvic Breadth

⌞ A general statement explaining why certain dimensions must be considered indeterminable.

See Also:

Bi-Spinal Diameter  
Bi-Trochanteric Breadth - Bone  
Hip Breadth

◊ Suggested additional dimensions.

## THIGH CLEARANCE HEIGHT

Reference: US ADULTS

Verbatim description of dimension from source

†Examinee seated on a flat, horizontal board, with the knees at right angles, thighs horizontal, and popliteal areas . . . lightly touching the seat surface.† The examinee sat erect, knees together, heels together, right hand on left shoulder. The measurement was made with an anthropometer, from the top of the sitting surface to the junction of the abdomen and thigh, with the crossbar in firm contact. . . .

Number, Mean, Standard Deviation, and Coefficient of Variation when available from source.

Men	Women
N: 3091	3581
X: 14.5 cm; 5.7 in	13.7 cm; 5.4 in
Est SD: [1.98 cm; 0.78 in]	[2.29 cm; 0.90 in]
Est V%: [13.6]	[16.7]

When not listed in source, SD and V% are estimated when possible, and inserted in brackets. NDA indicates No Data Available.

### Similar Dimensions:

Equivalent:

NATO: *Thigh Clearance Height, Sitting*

Not Equivalent:

Quotations from the sources illustrate at least one difference from the reference dimensions.

FAA: *Thigh Clearance* - just distal to the inguinal line

KOREA: *Thigh Clearance Height, Sitting* - lower legs hanging free

USAF '50: *Thigh Clearance Height, Sitting* - lower legs hanging free

Indeterminable:

None

## INTERSCYE MAXIMUM

Reference: USN

Italicized text in this section signifies source definition inserted here to clarify an anatomical landmark.

Subject sits erect, his arms horizontal and extended forward as far as possible. Using the tape, measure the minimum surface distance between the bottoms of the marked points near the armpits on the subject's back (scye points) †the highest point in the crease formed by the juncture of the arm and trunk†. [USAF '50]

N: 1549  
X: 54.31 cm; 21.38 in  
SD: 3.45 cm; 1.36 in  
V%: 6.35

Bracketed reference code indicates correct original source when incorrectly given in reference.

**Similar Dimensions:**

 These dimensions, measured on different populations, are virtually or in effect identical to the reference dimension.

**Equivalent:**

ARMY '66: *Interscye, Maximum*  
JAPAN: *Interscye Maximum*  
KOREA: *Interscye Maximum*  
NATO: *Interscye Maximum*  
NAVY RECRUITS: *Interscye, Maximum*  
USAF '50: *Interscye Maximum*  
USMC: *Interscye, Maximum*  
WAF RECRUITS: *Interscye Maximum*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Interscye*

# AGE STATISTICS ON SOURCE POPULATIONS (IN YEARS)

SOURCE CODE NAME	N	$\bar{X}$	SD	RANGE
AAF .....	4061	27 (Median)	—	—
ARMY '66 .....	6682	22.17	4.64	17-55
ARMY ARMORED .....	900+	(1)	—	—
ARMY AVIATORS .....	500	30.25	4.58	20-47
ARMY QM .....	25000+	24±	—	15-40+
AUSTRALIA .....	3459	31.32	8.79	17-56
BARTER .....	100	—	—	—
BELGIUM— <i>Flying Personnel</i> .....	2420	—	—	17-50
BELGIUM— <i>Trainees</i> .....	2120	—	—	17-24
BULGARIA .....	1659	[23.07]	—	[21-26]
FAA .....	678	27.90	6.18	21-50
FOOT— <i>White</i> .....	5575	—	—	17-38
FOOT— <i>Negro</i> .....	1200	—	—	17-38
FRANCE '55: .....	1000	—	—	18-45
FRANCE '65— <i>Military Fighter Pilots</i> .....	220	29.58	—	—
FRANCE '65— <i>Military Transport Pilots</i> .....	450	29.41	—	—
FRANCE '65: <i>Civilian Transport Pilots</i> .....	150	29.67	—	—
HAND .....	27	24.70	6.15	19-45
*HANDS— <i>Female</i> .....	211	22.9	6.5	18-56
HANDS— <i>Male</i> .....	148	31.5	7.1	20-49
*HOOTON— <i>Females</i> .....	1903	35.55	—	17-84
HOOTON— <i>Males</i> .....	1959	38.45	—	17-89
INDIA .....	691	—	—	—
JAPAN .....	239	25.04	—	20-39
KOREA .....	264	28.02	—	23-36
MORANT .....	200	25.9	—	—
NATO— <i>Turkey</i> .....	915	[23.55]	[4.64]	17-45
NATO— <i>Greece</i> .....	1083	[22.45]	[2.81]	17-43
NATO— <i>Italy</i> .....	1324	[25.96]	[7.12]	18-59
NAVY RECRUITS .....	4095	19.86	1.47	17-32
NORWAY .....	5765	—	—	19.5-20.5
RAF-RCAF— <i>RAF</i> .....	4357	—	—	—
RAF-RCAF— <i>RCAF</i> .....	314	—	—	—
THAI .....	2950	24.0	4.0	17-52
1000 AVIATORS .....	675	47.10	2.45	42-62

(1) AAF data cited for most dimensions

\*Female sample

	N	$\bar{X}$	SD	RANGE
*US ADULTS— <i>Females</i> .....	3581	—	—	18-79
US ADULTS— <i>Males</i> .....	3091	—	—	18-79
USAF '50 .....	4060	28.87	4.22	18-54
USMC .....	2008	20.88	2.87	17-43
USN .....	1549	—	—	—
VIETNAM .....	2129	27.2	5.70	18-53
*WAC— <i>Nurses</i> .....	3489	26.26	4.71	21-48
*WAC— <i>Enlisted</i> .....	4302	26.44	5.87	18-59
*WAC— <i>Officers</i> .....	467	31.21	6.07	22-52
*WAF RECRUITS .....	852	19.79	2.71	18-34
*WASP— <i>Nurses</i> .....	150	—	—	—
*WASP— <i>Pilots</i> .....	445	—	—	18-35
*WOMEN .....	10042	35.85	—	18-82
WORKING POS I .....	40	24.40	5.50	—
WORKING POS II .....	53	28.98	9.04	18-61

\*Female sample

### WEIGHT STATISTICS ON SOURCE POPULATIONS (IN KILOGRAMS AND POUNDS)

SOURCE CODE NAME	N	$\bar{X}$	SD
AAF— <i>Pilots</i> .....	2960	69.45; 153.12 (Median)	—
AAF— <i>Gunners</i> .....	584	66.71; 147.07 (Median)	—
ARMY '66 .....	6677	72.16; 159.09	10.59; 23.36
ARMY ARMORED .....	900+	(1)	—
ARMY AVIATORS .....	500	75.19; 165.77	8.57; 18.90
ARMY QM .....	24506	70.22; 154.81	9.32; 20.56
AUSTRALIA .....	3484	[72.43; 159.7]	—
BARTER .....	100	—	—
BELGIUM— <i>Flying Personnel</i> .....	2214	68.55; 151.12	7.84; 17.28
BELGIUM— <i>Trainees</i> .....	2120	66.53; 146.67	6.90; 15.21
BULGARIA .....	1610	[66.75; 147.16]	[5.56; 12.27]
FAA .....	678	73.39; 161.81	10.01; 22.09
FOOT— <i>White</i> .....	5575	—	—
FOOT— <i>Negro</i> .....	1200	—	—
FRANCE '55 .....	1000	65.82; 145.10	7.03; 15.49

(1) AAF data cited for most dimensions

	N	$\bar{X}$	SD
FRANCE '65— <i>Military Fighter Pilots</i> ...	220	70.28; 154.93	7.44; 16.40
FRANCE '65— <i>Military Transport Pilots</i> ..	450	71.11; 156.76	8.40; 18.51
FRANCE '65— <i>Civilian Transport Pilots</i> ..	150	70.11; 154.56	7.57; 16.68
HAND .....	27	74.04; 163.24	11.73; 25.87
*HANDS— <i>Female</i> .....	211	58.28; 128.5	8.16; 18.0
HANDS— <i>Male</i> .....	148	—	—
*HOOTON— <i>Females</i> .....	1908	60.4; 133.1 (Median)	—
HOOTON— <i>Males</i> .....	1959	75.6; 166.7 (Median)	—
INDIA .....	691	56.33; 124.20	6.77; 14.93
JAPAN .....	239	61.12; 134.74	5.86; 12.91
KOREA .....	264	62.72; 138.24	6.52; 14.38
MORANT .....	200	66.95; 147.6	8.27; 18.24
NATO— <i>Turkey</i> .....	915	64.61; 142.43	8.23; 18.14
NATO— <i>Greece</i> .....	1084	67.03; 147.77	7.62; 16.79
NATO— <i>Italy</i> .....	1358	70.26; 154.89	8.43; 18.58
NAVY RECRUITS .....	4091	71.55; 157.75	10.55; 23.28
NORWAY .....	5765	70.09; 154.52	7.46; 16.44
RAF-RCAF— <i>RAF</i> .....	4357	71.92; 158.56	9.24; 20.39
RAF-RCAF— <i>RCAF</i> .....	314	76.41; 168.47	9.88; 21.79
THAI .....	2950	56.3; 124.1	5.8; 12.8
1000 AVIATORS .....	675	80.40; 177.27	9.26; 20.47
*US ADULTS— <i>Females</i> .....	3581	64.4; 142	[10.8; 23.7 ]
US ADULTS— <i>Males</i> .....	3091	76.2; 168	[10.8; 23.7 ]
USAF '50 .....	4052	74.23; 163.66	9.46; 20.86
USMC .....	2006	72.64; 160.16	8.92; 19.67
USN .....	1549	77.74; 171.40	8.66; 19.09
VIETNAM .....	2128	51.1; 112.7	6.0; 13.2
*WAC— <i>Nurses</i> .....	3487	60.43; 133.25	9.16; 20.22
*WAC— <i>Enlisted</i> .....	4299	60.11; 132.54	9.33; 20.59
*WAC— <i>Officers</i> .....	468	61.40; 135.38	7.32; 16.15
*WAF RECRUITS .....	851	55.91; 123.27	6.59; 14.54
*WASP— <i>Nurses</i> .....	150	55.29; 121.9	—
*WASP— <i>Pilots</i> .....	446	58.33; 128.6	—
*WOMEN .....	10042	60.54; 133.48	11.78; 25.98
WORKING POS I .....	40	72.89; 160.70	9.76; 21.53
WORKING POS II .....	53	73.14; 161.25	9.62; 21.22

\*Female sample

**A Collation of**

**ANTHROPOMETRY**

**Volume I**

## ABDOMEN [DEPTH, SITTING]

### Reference: INDIA

†The height of the seat is first adjusted by adding to or reducing the number of pieces of wooden blocks on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with the back against one wing of the board and his right side touching the other wing. † arm touching against the side of the body and the fore-arm at right angle and arm with palm stretched facing inward† . . . block placed at the umbilical level.

N: 691

$\bar{X}$ : 23.06 cm; 9.08 in

SD: 1.78 cm; 0.70 in

V%: [7.72]

### Similar Dimensions:

None

### See Also:

Abdominal Depth

## ABDOMINAL CIRCUMFERENCE

### Reference: THOUSAND AVIATORS

The relaxed abdomen was measured at the level of the umbilicus just superior to the "fat roll."

N: 675

$\bar{X}$ : 90.74 cm; 35.72 in

SD: 7.75 cm; 3.05 in

V%: [8.5]

### Similar Dimensions:

Equivalent:

ARMY '66: *Waist Circumference*

NATO: *Waist Circumference - Omphalion*

NAVY RECRUITS: *Waist Circumference*

THAI: *Waist Circumference*

USMC: *Waist Circumference*

VIETNAM: *Waist Circumference*

Not Equivalent:

ARMY QM: *Waist Circumference* - midway between the lowest margins of the ribs . . . and superior margins . . . of iliac crests

### ***Abdominal Circumference—THOUSAND AVIATORS (Continued)***

AUSTRALIA: *Waist [Circumference]* - just above the hip bones  
 BULGARIA: *Waist Circumference* - the thinnest part of the abdomen  
 FAA: *Waist Circumference* - maximum diameter above the iliac crests  
 FRANCE '65: *Périmètre abdominal* - [level with the upper edges of the iliac crests]  
 GENEVA: *Minimum Circumference of the Waist* - at . . . most constricted portion of the abdomen  
 JAPAN: *Waist Circumference* - level of greatest lateral indentation in the region of the abdomen  
 KOREA: *Waist Circumference* - level of greatest lateral indentation in the region of the abdomen  
 MONTAGU: *Minimum Circumference of the Trunk-Waist Girth* - minimum waist girth  
 USAF '50: *Waist Circumference* - level of greatest lateral indentation in the region of the abdomen  
 USN: *Waist Circumference* - level of greatest lateral indentation in the region of the abdomen  
 WAC: *Waist Circumference* - between the superior borders of the hips and the inferior borders of the ribs  
 WAF RECRUITS: *Waist Circumference* - natural waistline . . . (minimum circumference)  
 WASP: *Waist Circumference* - Minimum circumference around waist  
 WOMEN: *Waist Girth* - lower edge of the lowest ribs

Indeterminable:

ARMY AVIATORS: *Waist Circumference* [waist level not defined]

### **See Also:**

*Abdominal Extension Arc*  
*Abdominal Extension Girth*  
*Halfway to Hip Circumference*

## **ABDOMINAL DEPTH**

### **Reference: AAF**

Maximum horizontal contact dimension, wherever found.

<i>Cadets</i>	<i>Gunners</i>
N: 2958	584
Median: 20.79 cm; 8.18 in	20.71 cm; 8.15 in
SD: NDA	NDA
V%: NDA	NDA

### *Abdominal Depth—AAF (Continued)*

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY ARMORED: *Abdominal Depth*

TUFTS: *Abdominal Depth*

##### **Not Equivalent:**

ARMY QM: *Trunk Depth* - maximum anterior-posterior diameter of either the thorax or abdomen

KOREA: *Waist Depth* - between the points marked †the natural waistline . . . greatest lateral indentation

NATC: *Waist Depth-Omphalion* - at the level of the center of the umbilicus.

USA '50: *Waist Depth* - between the points marked † the natural waistline . . . greatest lateral indentation

USN: *Waist Depth* - at the level of the center of the umbilicus

WAC: *Trunk Depth* - maximum anterior-posterior diameter of the thorax or abdomen . . . below breasts

##### **Indeterminable:**

FAA: *Waist Depth* - [area on waist not specified]

#### **See Also:**

*Abdomen [Depth, Sitting]*

## **ABDOMINAL DEPTH**

#### **Reference: ARMY ARMORED**

Maximum horizontal contact dimension, wherever found.

Reference cites AAF data for this dimension.

#### **Similar Dimensions:**

##### **Equivalent:**

AAF: *Abdominal Depth*

TUFTS: *Abdominal Depth*

##### **Not Equivalent:**

ARMY QM: *Trunk Depth* - maximum anterior-posterior diameter of either the thorax or abdomen

KOREA: *Waist Depth* - between the points marked †the natural waistline . . . greatest lateral indentation

NATO: *Waist Depth-Omphalion* - at the level of the center of the umbilicus

USAF '50: *Waist Depth* - between the points marked †the natural waistline . . . greatest lateral indentation

***Abdominal Depth—ARMY ARMORED (Continued)***

USN: *Waist Depth* - at the level of the center of the umbilicus

WAC: *Trunk Depth* - maximum anterior-posterior diameter of the thorax or abdomen . . . below breasts

Indeterminable:

FAA: *Waist Depth* - [area on waist not specified]

**See Also:**

*Abdomen [Depth, Sitting]*

**ABDOMINAL DEPTH**

**Reference: TUFTS**

Maximum horizontal contact dimension, wherever found. (Sitting) [Sic]  
[Standing]

Reference cites AAF data for this dimension.

**Similar Dimensions:**

Equivalent:

AAF: *Abdominal Depth*

ARMY ARMORED: *Abdominal Depth*

Not Equivalent:

ARMY QM: *Trunk Depth* - maximum anterior-posterior diameter of either the thorax or abdomen

KOREA: *Waist Depth* - between the points marked †the natural waist line . . . greatest lateral indentation

NATO: *Waist Depth-Omphalion* - at the level of the center of the umbilicus.

USAF '50: *Waist Depth* - between the points marked †the natural waist line . . . greatest lateral indentation

USN: *Waist Depth* - at the level of the center of the umbilicus

WAC: *Trunk Depth* - maximum anterior-posterior diameter of the thorax or abdomen . . . below breasts

Indeterminable:

FAA: *Waist Depth* - [area on waist not specified]

**See Also:**

*Abdomen [Depth, Sitting]*

## ABDOMINAL-EXTENSION ARC

### Reference: WOMEN

Tape. †The subject stood erect with her hands folded across her chest† The zero point of the tape was placed at the landmark †*The region of the abdomen below the waist was viewed from the side and a landmark placed at the level of greatest protuberance*† on the right side which indicated the level of the greatest abdominal extension. The tape was then passed without constriction across to the corresponding level on the left side, where the reading was taken.

N: 10042  
 $\bar{X}$ : 49.96 cm, 19.67  
SD: 6.86 cm, 2.70  
V%: 13.7

### Similar Dimensions:

None

### See Also:

*Abdominal-Extension Girth*  
*Waist Circumference*

## ABDOMINAL-EXTENSION GIRTH

### Reference: WOMEN

Tape. . . . The subject stood erect with her hands folded across her chest . . . . The tape was passed around the body so that the upper border of the tape was at the level previously marked as the greatest extension of the abdomen †*The region of the abdomen below the waist was viewed from the side and a landmark placed at the level of greatest protuberance*† . . . measurement taken without restriction.

N: 10042  
 $\bar{X}$ : 91.95 cm, 36.20 in  
SD: 11.96 cm, 4.71 in  
V%: 13.0

### Similar Dimensions:

None

### See Also:

*Abdominal-Extension Arc*  
*Waist Circumference*

## ABDOMINAL-EXTENSION HEIGHT

### Reference: WOMEN

Anthropometer . . . The subject stood erect, the palms of the hands at the thighs, with her weight evenly distributed on her feet . . . The anthropometer was held vertical in the right hand and the movable arm raised with the left until the brass point rested on the landmark †*The region of the abdomen below the waist was viewed from the side and a landmark placed at the level of greatest protuberance*† †The height . . . from the floor was measured†.

N: 10042  
X: 92.13 cm; 36.27 in  
SD: 4.93 cm, 1.94 in  
V%: 5.3

### Similar Dimensions:

None

### See Also:

*Waist Height*

## ACROMIAL HEIGHT

### Reference: WAF RECRUITS

Subject stands erect. Measure from the floor to the marked acromion point † *the outer end of the transverse spine of the shoulder blade* † on the right side with the anthropometer.

N: 849  
X: 131.48 cm; 51.76 in  
SD: 5.53 cm; 2.18 in  
V%: 4.21

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Shoulder Height (Acromiale Height)*  
MARTIN: *Hoehe des rechten Akromion ueber dem Boden*  
MONTAGU: *Right Acromial Height*  
NAVY RECRUITS: *Shoulder Height (Acromiale Height)*  
THAI: *Shoulder Height*  
USMC: *Shoulder Height (Acromiale Height)*  
VIETNAM: *Shoulder Height*

#### Not Equivalent:

FAA: *Shoulder Height - using a wallboard*

### Acromial Height—WAF RECRUITS (Continued)

GENEVA: Acromion [Height] - superior and external border of the acromion  
 HRDLÍČKA: Shoulder Height - upper surface of the outermost part of the acromion  
 JAPAN: Shoulder Height - highest point on the lateral edge of the shoulder bone  
 KOREA: Shoulder Height (Acromial Height) - highest point on the lateral edge of the shoulder bone  
 NATO: Acromiale Height (Shoulder Height) - highest point . . . on the lateral edge of the acromial spine  
 USAF '50: Shoulder Height (Acromial Height) - highest point on the lateral edge of the shoulder bone  
 WAC: Acromion Height - most lateral point on the superior surface of the acromial process

Indeterminable:

None

See Also:

Shoulder Height, Sitting

### ACROMIALE HEIGHT (SHOULDER HEIGHT)

#### Reference: NATO

Subject stands erect. Using the anthropometer, measure the vertical distance from the standing surface to the right acromion landmark †the highest point above the floor that can be palpated on the lateral edge of the acromial spine of the scapula†.

Turkey	Greece	Italy
N: 915	1084	1358
$\bar{X}$ : 137.68 cm; 54.20 in	138.63 cm; 54.58 in	133.90 cm; 54.69 in
SD: 5.35 cm; 2.11 in	5.41 cm; 2.13 in	5.90 cm; 2.32 in
V%: 3.89	3.90	4.24

#### Similar Dimensions:

Equivalent:

GENEVA: Acromion [Height]  
 HRDLÍČKA: Shoulder Height  
 JAPAN: Shoulder Height  
 KOREA: Shoulder Height (Acromial Height)  
 USAF '50: Shoulder Height (Acromial Height)  
 WAC: Acromion Height

Not Equivalent:

ARMY '66: Shoulder Height (Acromiale Height) - to the outer point (acromion) of the right shoulder

***Acromiale Height (Shoulder Height)—NATO (Continued)***

FAA: *Shoulder Height* - using a wall board

MARTIN: *Hoehe des rechten Akromion ueber dem Boden* - [point on the lateral edge]

MONTAGU: *Right Acromial Height* - lateral projection of the lateral border . . . of the scapula

NAVY RECRUITS: *Shoulder Height (Acromiale Height)* - to the outer point (acromion) of the right shoulder

THAI: *Shoulder Height* - to outer point of shoulder (acromiale)

USMC: *Shoulder Height (Acromiale Height)* - to the outer point (acromion) of the right shoulder

VIETNAM: *Shoulder Height* - to outer point of right shoulder (acromiale)

WAF RECRUITS: *Acromial Height* - outer edge of the transverse spine of the shoulder blade

Indeterminable:

None

**See Also:**

*Shoulder Height, Sitting*

**ACROMION [HEIGHT]**

**Reference: GENEVA**

†The subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal.† . . . anatomical landmark: superior and external border of the acromion process. †height of the "anatomical landmark" above the ground is to be determined.†

No Data Available

**Similar Dimensions:**

Equivalent:

HRDLÍČKA: *Shoulder Height*

JAPAN: *Shoulder Height*

KOREA: *Shoulder Height (Acromial Height)*

NATO: *Acromiale Height (Shoulder Height)*

USAF '50: *Shoulder Height (Acromial Height)*

WAC: *Acromion Height*

Not Equivalent:

ARMY '66: *Shoulder Height (Acromiale Height)* - to the outer point (acromion) of the right shoulder

**Acromion [Height]—GENEVA (Continued)**

FAA: *Shoulder Height* - using a wall board

MARTIN: *Hohe des rechten Akromion ueber dem Boden* - [ point on the lateral edge ]

MONTAGU: *Right Acromial Height* - lateral projection on the lateral border . . . of the scapula

NAVY RECRUITS: *Shoulder Height (Acromiale Height)* - to the outer point (acromiale)

THAI: *Shoulder Height* - to outer part of right shoulder (acromiale)

USMC: *Shoulder Height (Acromiale Height)* - to the outer point (acromion) of the right shoulder

VIETNAM: *Shoulder Height* - to outer point of right shoulder (acromiale)

WAF RECRUITS: *Acromial Height* - outer edge of the transverse spine of the shoulder blade

Indeterminable:

None

**See Also:**

*Shoulder Height, Sitting*

**ACROMION HEIGHT**

**Reference: WAC**

†Subject stood erect without stretching, eyes on an imaginary horizon† Measurement taken from floor vertically to left acromiale †the most lateral point on the superior surface of the acromial process†.

No Data Available

**Similar Dimensions:**

Equivalent:

GENEVA: *Acromion [Height]*

HRDLICKA: *Shoulder Height*

JAPAN: *Shoulder Height*

KOREA: *Shoulder Height (Acromial Height)*

NATO: *Acromiale Height (Shoulder Height)*

USAF '50: *Shoulder Height (Acromial Height)*

Not Equivalent:

ARMY '66: *Shoulder Height (Acromiale Height)* - to the outer point (acromion) of the right shoulder

FAA: *Shoulder Height* - using a wall board

***Acromion Height—WAC (Continued)***

**MARTIN:** *Hoehe des rechten Akromion ueber dem Boden - [ point on the lateral edge]*

**MONTAGU:** *Right Acromial Height - lateral projection of the lateral border . . . of the scapula*

**NAVY RECRUITS:** *Shoulder Height (Acromiale Height) - to the outer point (acromion) of the right shoulder*

**THAI:** *Shoulder Height - to outer point of right shoulder (acromiale)*

**USMC:** *Shoulder Height (Acromiale Height) - to the outer point (acromion) of the right shoulder*

**VIETNAM:** *Shoulder Height - to outer point of right shoulder (acromiale)*

**WAF RECRUITS:** *Acromial Height - outer edge of the transverse spine of the shoulder blade*

**Indeterminable:**

**None**

**See Also:**

***Shoulder Height, Sitting***

## ANKLE [HEIGHT]

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane; the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal.† . . . anatomical landmark: tip of the internal malleolus. †the height of the "anatomical landmark" above the ground is to be determined.†

No Data Available

Similar Dimensions:

Equivalent:

BULGARIA: *Medial Malleolus Height*  
JAPAN: *Medial Malleolus Height*  
KOREA: *Medial Malleolus Height*  
NATO: *Medial Malleolus Height*  
USAF '50: *Medial Malleolus Height*  
WAF RECRUITS: *Ankle Height*  
WOMEN: *Ankle Height*

Not Equivalent:

FRANCE '65: *Hauteur du pied* — [the inferior point of the medial malleolus]  
KOREA: *Lateral Malleolus Height* — the lateral malleolus  
MARTIN: *Hoche der rechten inneren Knochelapitze ueber dem Boden*  
[sphyrion]  
MONTAGU: *Right Sphyrion Height* — inferior surface of the medial malleolus  
NATO: *Ankle Height* — the least circumference of the ankle [height to level of]  
NATO: *Lateral Malleolus Height* — the lateral malleolus  
NATO: *Sphyrion Height* — the height of the sphyrion.  
USAF '50: *Lateral Malleolus Height* — the lateral malleolus

Indeterminable:

None

## ANKLE CIRCUMFERENCE

Reference: ARMY '66

Subject stands erect, with his feet slightly apart. The minimum horizontal circumference of the right ankle is measured. A steel tape is used, with the tape passing above the projections of the ankle bones (malleoli).

*Ankle Circumference—ARMY '66 (Continued)*

N: 6682  
X̄: 22.68 cm; 8.93 in  
SD: 1.44 cm; 0.57 in  
V%: 6.34

**Similar Dimensions:**

**Equivalent:**

FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg — Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

**Not Equivalent:**

ARMY QM: *Ankle Circumference* — in a plane passing through the . . . malleoli  
FOOT: *Lower Leg Girth* — girth . . . 125 mm above the ground  
WOMEN: *Ankle Girth* — through . . . medial point of malleolus medialis

**Indeterminable:**

None

**ANKLE CIRCUMFERENCE**

**Reference: ARMY QM**

†Erect posture, legs spread slightly† The minimum circumference of the ankle taken in a plane passing through the most prominent points over the external and internal malleoli with firm contact.

*Ankle Circumference—ARMY QM (Continued)*

N: 24,297  
X̄: 26.31 cm; 10.36 in  
SD: 1.45 cm; 0.57 in  
V%: [5.5]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Ankle Circumference*—minimum horizontal circumference of the right ankle  
FAA: *Ankle Circumference*—immediately proximal to the malleolae  
FOOT: *Lower Leg Girth*—girth . . . 125 mm above the ground  
FRANCE '65: *Périmètre minimum de la jambe*—[above the malleoli]  
GENEVA: *Minimum Circumference of the Leg*—above the level of the malleoli  
JAPAN: *Ankle Circumference*—(. . . proximal to) the projections of the ankle bones  
KOREA: *Ankle Circumference*—(. . . proximal to) the projections of the ankle bones  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*—[directly above the malleoli]  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*—above . . . malleoli  
NATO: *Ankle Circumference*—landmark indicating least circumference  
NAVY RECRUITS: *Ankle Circumference*—minimum horizontal circumference of the right ankle  
THAI: *Ankle Circumference*—just above . . . ankle bones  
USAF '50: *Ankle Circumference*—(. . . proximal to) the projections of the ankle bones  
USMC: *Ankle Circumference*—minimum horizontal circumference of the right ankle  
USN: *Ankle Circumference*—at the landmark indicating least circumference  
VIETNAM: *Ankle Circumference*—just above projections of ankle bones  
WAF RECRUITS: *Ankle Circumference*—above the projections of the ankle bones  
WOMEN: *Ankle Girth*—through . . . medial point of malleolus medialis  
WOMEN: *Minimum Leg Girth*—above the . . . malleoli

**Indeterminable:**

None

## ANKLE CIRCUMFERENCE

### Reference: FAA

The minimal circumference of the ankle at a level immediately proximal to the malleolae.

N: 681  
 $\bar{X}$ : 23.20 cm; 9.13 in  
SD: 1.40 cm, 0.55 in  
V%: 6.07

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference—in a plane passing through the . . . malleoli*  
FOOT: *Lower Leg Girth—girth . . . 125 mm above the ground*  
WOMEN: *Ankle Girth—through . . . medial point of malleolus medialis*

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: JAPAN

Subject stands. Holding the tape slightly above (i.e., proximal to) the projections of the ankle bones, measure the minimum circumference of the right leg.

N: 239

$\bar{X}$ : 21.68 cm; 8.54 in

SD: 1.23 cm; 0.48 in

V%: 5.70

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*

FAA: *Ankle Circumference*

FRANCE '65: *Périmètre minimum de la jambe*

GENEVA: *Minimum Circumference of the Leg*

KOREA: *Ankle Circumference*

MARTIN: *Kleinster Umfang des rechten Unterschenkels*

MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*

NATO: *Ankle Circumference*

NAVY RECRUITS: *Ankle Circumference*

THAI: *Ankle Circumference*

USAF '50: *Ankle Circumference*

USMC: *Ankle Circumference*

USN: *Ankle Circumference*

VIETNAM: *Ankle Circumference*

WAF RECRUITS: *Ankle Circumference*

WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference*—in a plane passing through the . . . malleoli

FOOT: *Lower Leg Girth*—girth . . . 125 mm above the ground

WOMEN: *Ankle Girth*—through . . . medial point of malleolus medialis

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Preference: KOREA

Subject stands. Holding the tape slightly above (i.e., proximal to) the projections of the ankle bones, measure the minimum circumference of the right leg.

N: 264  
 $\bar{X}$ : 21.83 cm; 8.59 in  
SD: 1.52 cm; 0.60 in  
V%: 6.94

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg.*  
JAPAN: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference—in a plane passing through the . . . malleoli*  
FOOT: *Lower Leg Girth—girth . . . 125 mm above the ground*  
WOMEN: *Ankle Girth—through . . . medial point of malleolus medialis*

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: NATO

Subject stands. Holding the tape in a horizontal plane, measure the circumference of the right ankle at the landmark indicating least circumference.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 22.46 cm; 8.84 in	22.56 cm; 8.88 in	22.60 cm; 8.90 in
SD: 1.32 cm; 0.52 in	1.15 cm; 0.45 in	1.27 cm; 0.50 in
V%: 5.85	5.10	5.62

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
 FAA: *Ankle Circumference*  
 FRANCE '65: *Périmètre minimum de la jambe*  
 GENEVA: *Minimum Circumference of the Leg*  
 JAPAN: *Ankle Circumference*  
 KOREA: *Ankle Circumference*  
 MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
 MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
 NAVY RECRUITS: *Ankle Circumference*  
 THAI: *Ankle Circumference*  
 USAF '50: *Ankle Circumference*  
 USMC: *Ankle Circumference*  
 USN: *Ankle Circumference*  
 VIETNAM: *Ankle Circumference*  
 WAF RECRUITS: *Ankle Circumference*  
 WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference*—in a plane passing through the . . . malleoli  
 FOOT: *Lower Leg Girth*—girth . . . 125 mm above the ground  
 WOMEN: *Ankle Girth*—through . . . medial point of malleolus medialis

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: NAVY RECRUITS

Subject stands erect, with his feet slightly apart. The minimum horizontal circumference of the right ankle is measured. A steel tape is used, with the tape passing above the projections of the ankle bones (malleoli).

N: 4095  
 $\bar{X}$ : 23.24 cm; 9.15 in  
SD: 1.57 cm; 0.62 in  
V%: 6.78

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference—in a plane passing through the . . . malleoli*  
FOOT: *Lower Leg Girth—girth . . . 125 mm above the ground*  
WOMEN: *Ankle Girth—through . . . medial point of malleolus medialis*

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: THAI

Measured as minimum circumference of right ankle, with tape passing just above projections of ankle bones (malleoli).

N: 2950  
 $\bar{X}$ : 21.0 cm; 8.3 in  
SD: 1.2 cm; 0.5 in  
V%: 5.7

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference—in a plane passing through the . . . malleoli*  
FOOT: *Lower Leg Girth—girth . . . 125 mm above the ground*  
WOMEN: *Ankle Girth—through . . . medial point of malleolus medialis*

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

Reference: USAF '50

Subject stands. Holding the tape slightly above (i.e., proximal to) the projections of the ankle bones, measure the minimum circumference of the right leg.

N: 4061  
 $\bar{X}$ : 22.68 cm; 8.93 in  
SD: 1.45 cm; 0.57 in  
V%: 6.39

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference*—in a plane passing through the . . . malleoli  
FOOT: *Lower Leg Girth*—girth . . . 125 mm above the ground  
WOMEN: *Ankle Girth*—through . . . medial point of malleolus medialis

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: USMC

Subject stands erect, with his feet slightly apart. The minimum horizontal circumference of the right ankle is measured. A steel tape is used, with the tape passing above the projections of the ankle bones (malleoli).

N: 2008  
 $\bar{X}$ : 22.65 cm; 8.92 in  
SD: 1.34 cm; 0.53 in  
V%: 5.93

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference*—in a plane passing through the . . . malleoli  
FOOT: *Lower Leg Girth*—girth . . . 125 mm above the ground  
WOMEN: *Ankle Girth*—through . . . medial point of malleolus medialis

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: USN

Subject stands. Holding the tape in a horizontal plane measure the circumference of the right ankle at the landmark indicating least circumference.

N: 1549  
X: 22.58 cm; 8.89 in  
SD: 1.25 cm; 0.49 in  
V%: 5.53

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference*—in a plane passing through the . . . malleoli  
FOOT: *Lower Leg Girth*—girth . . . 125 mm above the ground  
WOMEN: *Ankle Girth*—through . . . medial point of malleolus medialis

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: VIETNAM

Measured as minimum circumference of right ankle, with tape passing just above projections of ankle bones (malleoli).

N: 2122  
 $\bar{X}$ : 20.1 cm; 7.9 in  
SD: 1.2 cm; 0.5 in  
V%: 6.0

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
WAF RECRUITS: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference—in a plane passing through the . . . malleoli*  
FOOT: *Lower Leg Girth—girth . . . 125 mm above the ground*  
WOMEN: *Ankle Girth—through . . . medial point of malleolus medialis*

#### Indeterminable:

None

## ANKLE CIRCUMFERENCE

### Reference: WAF RECRUITS

Subject stands. Measure the minimum circumference with the tape held above the projections of the ankle bones of the right leg.

N: 848  
X: 21.51 cm; 8.47 in  
SD: 1.23 cm; 0.48 in  
V%: 5.71

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ankle Circumference*  
FAA: *Ankle Circumference*  
FRANCE '65: *Périmètre minimum de la jambe*  
GENEVA: *Minimum Circumference of the Leg*  
JAPAN: *Ankle Circumference*  
KOREA: *Ankle Circumference*  
MARTIN: *Kleinster Umfang des rechten Unterschenkels*  
MONTAGU: *Minimum Circumference of the Right Leg—Girth of Ankle*  
NATO: *Ankle Circumference*  
NAVY RECRUITS: *Ankle Circumference*  
THAI: *Ankle Circumference*  
USAF '50: *Ankle Circumference*  
USMC: *Ankle Circumference*  
USN: *Ankle Circumference*  
VIETNAM: *Ankle Circumference*  
WOMEN: *Minimum Leg Girth*

#### Not Equivalent:

ARMY QM: *Ankle Circumference—in a plane passing through the . . . malleoli*  
FOOT: *Lower Leg Girth—girth . . . 125 mm above the ground*  
WOMEN: *Ankle Girth—through . . . medial point of malleolus medialis*

#### Indeterminable:

None

## ANKLE DIAMETER

Reference: THOUSAND AVIATORS

†Measured with an anthropometer to the nearest millimeter with firm pressure on bony prominences.† Maximal diameter between malleoli with subject standing on a chair. Anthropometer blades were held 45 degrees down from the horizontal plane.

N: 675  
 $\bar{X}$ : 7.13 cm; 2.81 in  
SD: 0.35 cm; 0.14 in  
V%: [4.9]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

KOREA: *Bimalleolar Breadth* -- [pressure not specified]  
NATO: *Bimalleolar Breadth* — [pressure not specified]  
USAF '50: *Bimalleolar Breadth* — [pressure not specified]

## ANKLE GIRTH

Reference: WOMEN

Tape.†The subject sat on a table with the feet placed in a chair high enough to form a right angle at the knee.† The tape was placed around the ankle so that the upper border passed through the landmark †medial point of malleolus medialis† with the zero point in the center front. It was held with sufficient tension to maintain it in position at the landmark and over the irregular contours of the ankle.

N: 10042  
 $\bar{X}$ : 23.65 cm; 9.31 in  
SD: 1.70 cm; 0.67 in  
V%: 7.2

*Ankle Girth—WOMEN (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Ankle Circumference* — minimum horizontal circumference of the right ankle  
ARMY QM: *Ankle Circumference* — in a plane passing through the . . . malleoli  
FAA: *Ankle Circumference* — immediately proximal to the malleolae  
FOOT: *Lower Leg Girth* — girth . . . 125 mm above the ground  
FRANCE '65: *Périmètre minimum de la jambe* — [above the malleoli]  
GENEVA: *Minimum Circumference of the Leg* — above the level of the malleoli  
JAPAN: *Ankle Circumference* — (. . . proximal to) the projections of the ankle bones  
KOREA: *Ankle Circumference* — (. . . proximal to) the projections of the ankle bones  
MARTIN: *Kleinster Umfang des rechten Unterschenkels* — [directly above the malleoli]  
MONTAGU: *Minimum Circumference of the Right Leg — Girth of Ankle* — above . . . malleoli  
NATO: *Ankle Circumference* — landmark indicating least circumference  
NAVY RECRUITS: *Ankle Circumference* — minimum horizontal circumference of the right ankle  
THAI: *Ankle Circumference* — just above . . . ankle bones  
USAF '50: *Ankle Circumference* — (. . . proximal to) the projections of the ankle bones  
USMC: *Ankle Circumference* — minimum horizontal circumference of the right ankle  
USN: *Ankle Circumference* — landmark indicating least circumference  
VIETNAM: *Ankle Circumference* — just above projections of ankle bones  
WAF RECRUITS: *Ankle Circumference* — above the projections of the ankle bones  
WOMEN: *Minimum Leg Girth* — above the . . . malleoli

**Indeterminable:**

None

## ANKLE HEIGHT

Reference: NATO

Subject stands with his weight equally distributed on both feet, and the right foot slightly forward. Using the anthropometer, measure the vertical distance from the standing surface to the landmark †the level of the minimum circumference of the lower leg† indicating the least circumference of the ankle.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 12.01 cm; 4.73 in	12.39 cm; 4.88 in	12.90 cm; 5.08 in
SD: 0.86 cm; 0.34 in	0.67 cm; 0.26 in	0.65 cm; 0.26 in
V%: 7.19	5.38	5.02

Similar Dimensions:

Equivalent:

None

Not Equivalent:

BULGARIA: *Medial Malleolus Height* — from maleolus internus  
 FRANCE '65: *Hauteur du pied* — [the inferior point of the medial malleolus]  
 GENEVA: *Ankle [Height]* — tip of the internal malleolus  
 JAPAN: *Medial Malleolus Height* — the medial malleolus . . . its most projecting point  
 KOREA: *Lateral Malleolus Height* — the lateral malleolus  
 KOREA: *Medial Malleolus Height* — the medial malleolus . . . its most projecting point  
 MARTIN: *Hoehe der rechten inneren Knoechelspitze ueber dem Boden* — [sphyrion]  
 MONTAGU: *Right Sphyrion Height* — inferior surface of the medial malleolus  
 NATO: *Lateral Malleolus Height* — the lateral malleolus  
 NATO: *Medial Malleolus Height* — the medial malleolus . . . its most projecting point  
 NATO: *Sphyrion Height* — the height of the sphyrion landmark  
 USAF '50: *Lateral Malleolus Height* — the lateral malleolus  
 USAF '50: *Medial Malleolus Height* — the medial malleolus . . . its most projecting point  
 WAF RECRUITS: *Ankle Height* — the medial ankle bone . . . the center of the area  
 WOMEN: *Ankle Height* — most medial point of the malleolus medialis

Indeterminable:

None

## ANKLE HEIGHT

### Reference: WAF RECRUITS

Subject stands, preferably on a table, with weight equally distributed on both feet and the right foot slightly forward. The measurement is taken by means of a special block having a scale perpendicular to the table top. Bring the surface of the block against the medial ankle bone of the right foot and measure the height to the center of the area of tangency with the ankle bone to the nearest half-centimeter.

N: 845  
 $\bar{X}$ : 6.02 cm; 2.37 in  
SD: 0.39 cm; 0.15 in  
V%: 6.52

### Similar Dimensions:

#### Equivalent:

BULGARIA: *Medial Malleolus Height*  
GENEVA: *Ankle [Height]*  
JAPAN: *Medial Malleolus Height*  
KOREA: *Medial Malleolus Height*  
NATO: *Medial Malleolus Height*  
USAF '50: *Medial Malleolus Height*  
WOMEN: *Ankle Height*

#### Not Equivalent:

FRANCE '65: *Hauteur du pied* — [the inferior point of the medial malleolus]  
KOREA: *Lateral Malleolus Height* — the lateral malleolus  
MARTIN: *Hoehe der rechten inneren Knoechelspitze ueber dem Boden* —  
[sphyrion]  
MONTAGU: *Right Sphyrion Height* — inferior surface of the medial malleolus  
NATO: *Ankle Height* — the least circumference of the ankle [height to level of]  
NATO: *Lateral Malleolus Height* — the lateral malleolus  
NATO: *Sphyrion Height* — the height of the sphyrion  
USAF '50: *Lateral Malleolus Height* — the lateral malleolus

#### Indeterminable:

None

## ANKLE HEIGHT

### Reference: WOMEN

Sliding caliper. . . . The subject stood in a normal, nonfatigue position with her feet 6 to 8 inches apart and her weight evenly distributed on them.... The sliding caliper was placed between the feet of the subject with its shaft vertical and resting on its fixed arm. The movable arm was raised until the lower edge touched the landmark †most medial point of the malleolus medialis †.

N: 10042  
 $\bar{X}$ : 7.57 cm; 2.98 in  
SD: 0.71 cm; 0.28 in  
V%: 9.4

### Similar Dimensions:

#### Equivalent:

BULGARIA: *Medial Malleolus Height*  
JAPAN: *Medial Malleolus Height*  
KOREA: *Medial Malleolus Height*  
NATO: *Medial Malleolus Height*  
USAF '50: *Medial Malleolus Height*  
WAF RECRUITS: *Ankle Height*

#### Not Equivalent:

FRANCE '65: *Hauteur du pied* — [the inferior point of the medial malleolus]  
KOREA: *Lateral Malleolus Height* — the lateral malleolus  
MARTIN: *Hoehe der rechten inneren Knoechelspitze ueber dem Boden* —  
[sphyrion]  
MONTAGU: *Right Sphyrion Height* — inferior surface of the medial malleolus  
NATO: *Ankle Height* — the least circumference of the ankle [height to level of]  
NATO: *Lateral Malleolus Height* — the lateral malleolus  
NATO: *Sphyrion Height* — the height of the sphyrion  
USAF '50: *Lateral Malleolus Height* — the lateral malleolus

#### Indeterminable:

None

## ANKLE LENGTH

### Reference: FOOT

Length from posterior aspect of leg, 65 mm above the ground, to the junction of the foot and leg.

White	Negro
N: 5574	1200
$\bar{X}$ : 11.13 cm; 4.38 in	11.37 cm; 4.48 in
Est SD: [0.64 cm; 0.25 in]	[0.69 cm; 0.27]
Est V%: [5.8]	[6.1]

### Similar Dimensions:

None

## ANTERIOR ARM LENGTH

### Reference: WOMEN

Tape. . . The subject assumed her normal erect posture with feet together. Her right arm was raised laterally about 30 degrees without elevating the shoulder. The fingers were extended and the palm of the hand directed toward her thigh. . . . The zero point of the tape was placed at the underarm midpoint on the arm †placed with reference to the natural folds in the armpit and the total width of the shoulder. . . . The level of the midpoint was set with respect to the more clearly defined folds . . . A short, thin line on the trunk marked the underarmseye level. . . . A vertical line indicating half of the total width of the shoulder was drawn through this to give the underarm midpoint of the trunk. . . . The underarm midpoint on the arm was placed so that it fell upon the midpoint of the trunk when the arm was lowered to the side† The reading was made at the midanterior wrist point †placed on the anterior or volar surface of the wrist. . . . a sighted projection of the distal end of the ulna †.

N: 10042  
 $\bar{X}$ : 42.19 cm; 16.61 in  
SD: 2.87 cm; 1.13 in  
V%: 6.8

### Similar Dimensions:

Equivalent:

None

### *Anterior Arm Length—WOMEN (Continued)*

#### Not Equivalent:

JAPAN: *Sleeve Inseam* — to the notch beyond the radial styloid process  
KOREA: *Sleeve Inseam* — to the notch beyond the radial styloid process  
NATO: *Sleeve Inseam* — over the proximal edge of the navicular  
THAI: *Sleeve Inseam* — to the wrist (navicular)  
USAF '50: *Sleeve Inseam* — to the notch beyond the radial styloid process  
USN: *Sleeve Inseam* — over the proximal edge of the navicular  
VIETNAM: *Sleeve Inseam* — to the wrist (navicular)  
WAF RECRUITS: *Sleeve Inseam* — to the distal surface of the styloid process of the radius

#### Indeterminable:

ARMY '66: *Sleeve Inseam* — [wrist not defined]  
NAVY RECRUITS: *Sleeve Inseam* — [wrist not defined]  
USMC: *Sleeve Inseam* — [wrist not defined]

## ANTERIOR ARM REACH

#### Reference: AAF

Heels together; heels, buttocks, middle of back (in lateral sense), and occiput against wall. Require subject to attain maximum horizontal forward reach, with contacts maintained. Both arms horizontal, extended equally. Distance from wall to tip of right middle finger.

<i>Cadets</i>	<i>Gunnery</i>
N: 2959	580
Median: 89.34 cm; 35.2 in	89.38 cm; 34.8 in
SD: NDA	NDA
V%: NDA	NDA

#### Similar Dimensions:

#### Equivalent:

ARMY ARMORED: *Anterior Arm Reach*  
ARMY AVIATORS: *Arm Reach, Forward*  
FAA: *Arm Reach From Wall*  
INDIA: *Arm [Length]*  
KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*  
WASP: *Anterior Arm Reach*

*Anterior Arm Reach—AAF (Continued)*

Not Equivalent:

- FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* — [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

Indeterminable:

None

See Also:

*Functional Reach*

## ANTERIOR ARM REACH

Reference: ARMY ARMORED

Heels together; heels, buttocks, middle of back (in lateral sense), and occiput against wall. Require subject to attain maximum horizontal forward reach, with contacts maintained. Both arms horizontal, extended equally. Distance from wall to tip of right middle finger.

Reference cites AAF data for this dimension.

Similar Dimensions:

Equivalent:

- AAF: *Anterior Arm Reach*  
ARMY AVIATORS: *Arm Reach, Forward*  
FAA: *Arm Reach From Wall*  
INDIA: *Arm [Length]*  
KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*  
WASP: *Anterior Arm Reach*

*Anterior Arm Reach—ARMY (Continued)*

**Not Equivalent:**

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible

FRANCE '65: *Longueur utile du membre supérieur* — [not against a plane]

KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible

THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible

VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

**Indeterminable:**

None

**See Also:**

*Functional Reach*

**ANTERIOR ARM REACH**

**Reference: TUFTS**

Heels together; heels, buttocks, middle of back (in lateral sense), and occiput against wall. Require subject to attain maximum horizontal forward reach, with contacts maintained. Both arms horizontal, extended equally. Distance from wall to tip of right middle finger.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Anterior Arm Reach*

ARMY ARMORED: *Anterior Arm Reach*

ARMY AVIATORS: *Arm Reach, Forward*

FAA: *Arm Reach From Wall*

INDIA: *Arm [Length]*

KOREA: *Arm Reach From Wall*

RAF-RCAP: *Arm Length*

USAF '50: *Arm Reach From Wall*

WASP: *Anterior Arm Reach*

*Anterior Arm Reach—TUFTS (Continued)*

Not Equivalent:

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible

FRANCE '65: *Longueur utile du membre supérieur* — [not against a plane]

KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible

THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible

VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

Indeterminable:

None

See Also:

*Functional Reach*

## ANTERIOR ARM REACH

Reference: WASP

Heels together; heels, buttocks, middle of back (in lateral sense), and occiput against wall. Require subject to attain maximum horizontal forward reach, with contacts maintained. Both arms horizontal, extended equally. Distance from wall to tip of right middle finger.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 80.74 cm; 31.8 in	79.05 cm; 31.1 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

AAF: *Anterior Arm Reach*

ARMY ARMORED: *Anterior Arm Reach*

ARMY AVIATORS: *Arm Reach, Forward*

FAA: *Arm Reach From Wall*

INDIA: *Arm [Length]*

*Anterior Arm Reach—WASP (Continued)*

KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*

Not Equivalent:

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* — [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

Indeterminable:

None

See Also:

*Functional Reach*

## ANTERIOR BUST ARC

Reference: WOMEN

Tape . . . . The subject's position was her normal, erect posture. [Subject wore] † a snug bandeau. † The zero point of the tape was placed at the average bust level † *the level at which it appeared that the girth would be the greatest . . . when the subject was viewed from the side* † on the subject's right side, the tape passed across the largest part of the bust, and the reading taken at the corresponding level of the left side. Care was exercised not to constrict the musculature and the mammary glands. The reading was taken at the midpoint of respiration.

N: 10042  
X: 51.00 cm; 20.08 in  
SD: 6.78 cm; 2.67 in  
V%: 13.3

### *Anterior Bust Arc—WOMEN (Continued)*

#### Similar Dimensions:

None

#### See Also:

*Bust Circumference*

## ANTERIOR CHEST WIDTH

#### Reference: WOMEN

**Tape...** †The subject stood erect with feet as close together as was comfortable and with the palms of the hands on the thighs.† The upper border of the tape was placed horizontally, without constriction, at the level of the anterior landmark of the arm-scye with the zero point at the right arm-scye †placed with reference to the natural folds in the scapula and the total width of the shoulder. . . . The level of the zero point was set with respect to the more clearly defined folds † The reading was taken on the arm-scye of the left arm.

N: 10042  
 $\bar{X}$ : 31.67 cm; 12.47 in  
SD: 2.29 cm; 0.90 in  
V%: 7.2

#### Similar Dimensions:

None

## ANTERIOR CROTCH LENGTH

#### Reference: WOMEN

**Tape.** †After pulling up the measuring suit by the waist band to insure a snug adjustment at the crotch, the subject placed her left foot on a stool or other steady object which elevated the left foot to the midlevel of the patella of the right leg. Her weight was evenly distributed on her feet, the long axis of the right leg being held approximately perpendicular and the principal transverse axis of the pelvis approximately horizontal to the floor. The right foot was directed straight forward and the left hand rested on the left thigh. The head and trunk were erect.† . . . The zero point of the tape was placed at the average waist level †lies at the lower edge of the lowest rib . . . in the midaxillary line† . . . The measurer then dropped the tape . . . to the crotch level. . . . The tape was lowered from the perineum by the width of the tip of

*Anterior Crotch Length--WOMEN (Continued)*

the measurer's index finger so that the measurer could grasp the tape between the index finger and thumb at the medial landmark of the thigh *†the middle line of the inner surface of the right thigh was sighted and marked with a thin vertical line extending downward from the perineum†*. This landmark was the reading point for the measurement. The reading was taken while the tape was held at a distance equal to the width of the index finger below the perineum.

N: 10042  
 $\bar{X}$ : 36.88 cm; 14.52 in  
SD: 3.89 cm; 1.53 in  
V%: 10.6

**Similar Dimensions:**

None

**ANTERIOR NECK LENGTH**

**Reference: JAPAN**

Subject stands erect looking directly forward (head oriented in the Frankfort plane). Using the tape, measure the surface distance from the marked point at the upper edge of the breastbone (suprasternale) *†the lowest point of the notch in the upper edge of the breastbone†* to the juncture of the chin and the neck.

N: 178  
 $\bar{X}$ : 9.46 cm; 3.72 in  
SD: 1.40 cm; 0.55 in  
V%: 14.80

**Similar Dimensions:**

**Equivalent:**

KOREA: *Anterior Neck Length*  
NATO: *Anterior Neck Length*  
USAF '50: *Anterior Neck Length*

**Not Equivalent:**

None

**Indeterminable:**

None

## ANTERIOR NECK LENGTH

### Reference: KOREA

Subject stands erect looking directly forward (head oriented in the Frankfort plane). Using the tape, measure the surface distance from the marked point at the upper edge of the breastbone (suprasternale) *†the lowest point of the notch in the upper edge of the breastbone†* to the juncture of the chin and the neck.

N: 264  
 $\bar{X}$ : 9.65 cm; 3.80 in  
 SD: 1.13 cm; 0.45 in  
 V%: 11.7%

### Similar Dimensions:

#### Equivalent:

JAPAN: *Anterior Neck Length*  
 NATO: *Anterior Neck Length*  
 USAF '50: *Anterior Neck Length*

#### Not Equivalent:

None

#### Indeterminable:

None

## ANTERIOR NECK LENGTH

### Reference: NATO

Subject stands erect, his head in the Frankfort plane. Using the tape, measure the surface distance from the anterior neck landmark *†the junction in the midsagittal plane of the under surface of the jaw with the column of the neck†* to the suprasternale landmark *†the lowest point of the notch in the upper anterior edge of the sternum or breastbone†*.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 9.06 cm; 3.57 in	3.34 cm; 3.68 in	9.09 cm; 3.58 in
SD: 1.37 cm; 0.54 in	1.22 cm; 0.48 in	1.38 cm; 0.54 in
V%: 15.13	13.01	15.13

*Anterior Neck Length—NATO (Continued)*

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Anterior Neck Length*  
KOREA: *Anterior Neck Length*  
USAF '50: *Anterior Neck Length*

**Not Equivalent:**

None

**Indeterminable:**

None

**ANTERIOR NECK LENGTH**

**Reference: USAF '50**

Subject stands erect looking directly forward (head oriented in the Frankfort plane). Using the tape, measure the surface distance from the marked point at the upper edge of the breastbone (suprasternale) *†the lowest point of the notch in the upper edge of the breastbone†* to the juncture of the chin and the neck.

N: 4063  
 $\bar{X}$ : 8.64 cm; 3.40 in  
SD: 1.63 cm; 0.64 in  
V%: 18.80

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Anterior Neck Length*  
KOREA: *Anterior Neck Length*  
NATO: *Anterior Neck Length*

**Not Equivalent:**

None

**Indeterminable:**

None

## ANTERIOR WAIST ARC

### Reference: WOMEN

Tape. †The subject's position was her normal, erect posture with feet together.† The zero point of the tape was placed at the average waist level *†at the lower edge of the lowest rib . . . in the mid-axillary line. This waist level corresponds very closely to the natural waist which can be seen when the side profiles of the body are slightly concave†* on the subject's right side and the tape passed without constriction across the waist at the average waist level in the center front. The reading was taken at the corresponding level on the left side.

N: 10,042  
 $\bar{X}$ : 41.96 cm; 16.52 in  
SD: 7.32 cm; 2.88 in  
V%: 17.4

### Similar Dimensions:

None

## ANTERIOR WAIST LENGTH

### Reference: WOMEN

Tape. †The subject stood erect with feet as close together as was comfortable and with the palms of the hands on the thighs.† The zero point of the tape was held at the neck base *†the neck chain was then placed around the neck so that it passed over the cervicale and the . . . upper borders of the medial extremities of the right and left clavicles. A short vertical line intersecting the neck base at the center front was drawn in the median sagittal plane†* in the center front and the reading made at the average waist level *†lies at the lower edge of the lowest rib . . . in the midaxillary line. This waist level corresponds very closely to the natural waist which can be seen when the side profiles of the body are slightly concave †*.

N: 10,042  
 $\bar{X}$ : 32.74 cm; 12.89 in  
SD: 2.26 cm; 0.89 in  
V%: 6.9

### Similar Dimensions:

Equivalent:

None

*Anterior Waist Length—WOMEN (Continued)*

Not Equivalent:

- JAPAN: *Waist Front* — from ... (suprasternale) ... to †the level of greatest lateral indentation in the region of the abdomen
- KOREA: *Waist Front* — from ... (suprasternale) ... to †the level of greatest lateral indentation in the region of the abdomen
- NATO: *Waist Front-Omphalion* — from suprasternale ... to the center of the umbilicus.
- USAF '50: *Waist Front* — from ... (suprasternale) ... to †the level of greatest lateral indentation in the region of the abdomen
- WAC: *Lateral Neck Point-Waist* — from left lateral neck point ... to the level of the anterior waist point †minimal circumference between iliac crests and the 12th rib
- WAF RECRUITS: *Waist Front to Cervicale* — from ... cervicale ... over the right shoulder to the waist point [between omphalion and greatest lateral indentation]
- WOMEN: *Cervicale to Waist Anterior* — [from] cervicale ... along the right side of the neck base ... to waist level †at lower edge of the lowest rib† at center front

Indeterminable:

None

**ANTERIOR-POSTERIOR DIAMETER OF THE CHEST**

**Reference: BULGARIA**

Rectilinear distance from mesosternale to the horizontally corresponding spine of the thoracic vertebra, under conditions of calm breathing and relaxed arms. Measured with pelvimeter.

<i>Men</i>	<i>Women</i>
N: 1658	1577
$\bar{X}$ : [20.03 cm; 7.89 in]	[18.41 cm; 7.25 in]
Est SD: [1.88 cm; 0.74 in]	[1.85 cm; 0.73 in]
Est V%: [9.39]	[10.04]

Similar Dimensions:

Equivalent:

None

*Anterior-Posterior Diameter of the Chest — BULGARIA (Continued)*

Not Equivalent:

AAF: *Chest Depth* — at nipple level. . . fixed arm of anthropometer in spinal groove  
 ARMY '66: *Chest Depth* — at the level of the nipples  
 ARMY ARMORED: *Chest Depth* — at nipple level  
 ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back  
 ARMY AVIATORS: *Chest Depth* — at nipple level  
 ARMY QM: *Chest Depth* — sliding arm of the anthropometer . . . just above the nipples  
 FAA: *Chest Depth* — at the nipple line  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid — Intermediate Stage]* — at the level of base of ensiform [xiphoid] cartilage  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid-Mean]* — at level of base of ensiform [xiphoid] cartilage  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale — Intermediate Stage]* — measurement . . . made in the intermediate stage† extremes of inspiration and of expiration  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale — Mean]* — mean of . . . extremes of inspiration and of expiration  
 HRDLIČKA: *Antero-Posterior Diameter of the Chest [Men]* — at the nipples  
 HRDLIČKA: *Antero-Posterior Diameter of the Chest [Women]* — forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees medium between normal inspiration and expiration  
 INDIA: *Chest [Depth, Sitting]* — seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level  
 KOREA: *Chest Depth* — at the level of the nipples  
 MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae  
 NATO: *Chest Depth* — at the level of the nipples  
 NAVY RECRUITS: *Chest Depth* — at the level of the nipples  
 THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* — at the level of the nipple  
 TUFTS: *Chest Depth* — at nipple level  
 USAF '50: *Chest Depth* — at the level of the nipples  
 USMC: *Chest Depth* — at the level of the nipples  
 USN: *Chest Depth* — at the level of the nipples  
 WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [Instrument unknown]

See Also:

*Trunk Depth*

## ANTERO-POSTERIOR DIAMETER OF THE CHEST [MEN]

Reference: HRDLÍČKA

The antero-posterior diameter of the plane of the thorax at the nipples in children and men †Subject, in an undergarment, stands in natural, easy, erect position. The forearms are flexed loosely at about right angles, and the arms are lifted somewhat forward and to about 65 degrees outward from the body . . . repeated measurements are taken until the medium between normal inspiration and expiration is ascertained, and this is recorded.†

No Data Available

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Depth* — Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY '66: *Chest Depth* — arms . . . lowered

ARMY ARMORED: *Chest Depth* — Contact to sternum . . . fixed arm of anthropometer in spinal groove.

ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back

ARMY QM: *Chest Depth* — sliding arm of the anthropometer . . . just above the nipples . . . [anthropometer] †arms project downward and backward† Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* — from mesosternale . . . Measured with pelvimeter

FAA: *Chest Depth* — [Arms are pendant]

FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [at the . . . fourth costal cartilage]

GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid-Intermediate Stage]* — upper limbs are pendant . . . at the level of the base of the ensiform [xiphoid] cartilage† †intermediate stage† †extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid - Mean]* — upper limbs are pendant . . . at the level of the base of the ensiform [xiphoid] cartilage† †mean of the measurements taken at the extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale - Intermediate Stage]* — upper limbs are pendant† †at the level of the upper border of the fourth chondro-sternal articulation† †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale -*

*Antero-Posterior Diameter of the Chest [Men]—HRDLIČKA—(Continued)*

*Mean*] — upper limbs are pendant† †at the level of the upper border of the fourth chondro-sternal articulation† †mean of . . . extremes of inspiration and of expiration

HRDLIČKA: *Antero-Posterior Diameter of the Chest [Women]* — at the line of the fourth costo-sternal articulation

INDIA: *Chest [Depth, Sitting]* — seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level

KOREA: *Chest Depth* — arms lowered

MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae

NATO: *Chest Depth* — arms . . . lowered

NAVY RECRUITS: *Chest Depth* — arms . . . lowered

THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* — arms at his sides

TUFTS: *Chest Depth* — Contact to sternum . . . fixed arm of anthropometer in spinal groove

USAF '50: *Chest Depth* — arms . . . lowered

USMC: *Chest Depth* — arms . . . lowered

USN: *Chest Depth* — arms . . . lowered

WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

ARMY AVIATORS: *Chest Depth* — [position of subject's arms not specified]

See Also:

*Trunk Depth*

## ANTERO-POSTERIOR DIAMETER OF THE CHEST [WOMEN]

Reference: HRDLIČKA

The antero-posterior diameter of the plane of the thorax . . . at the line of the fourth costo-sternal articulation. . . †Subject, in an undergarment, stands in natural, easy, erect position. The forearms are flexed loosely at about right angles, and the arms are lifted somewhat forward and to about 65 degrees outward from the body . . . repeated measurements are taken until the medium between normal inspiration and expiration is ascertained, and this is recorded.†

No Data Available

*Antero-Posterior Diameter of the Chest [Women]—HRDLIČKA (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

- AAF: *Chest Depth* — at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove.
- ARMY '66: *Chest Depth* — arms . . . lowered . . . at the level of the nipples
- ARMY ARMORED: *Chest Depth* — at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove
- ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back.
- ARMY AVIATORS: *Chest Depth* — at nipple level . . . normal breathing
- ARMY QM: *Chest Depth* — sliding arm of the anthropometer . . . just above the nipples . . . [anthropometer] †arms project downward and backward† Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* — from mesosternale . . . calm breathing and relaxed arms. Measured with pelvimeter
- FAA: *Chest Depth* — at the nipple line [Arms are pendant]
- FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [Arms pendant]
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid - Intermediate Stage]* — upper limbs are pendant . . . at the level of the base of the ensiform [xiphoid] cartilage† †intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid - Mean]* — upper limbs are pendant . . . at the level of the base of the ensiform [xiphoid] cartilage† †mean of measurements taken at extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale - Intermediate Stage]* — upper limbs are pendant† †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale - Mean]* — upper limbs are pendant† †mean of . . . extremes of inspiration and of expiration
- HRDLIČKA: *Antero-Posterior Diameter of the Chest [Men]* — at the nipples
- INDIA: *Chest [Depth, Sitting]* — seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level
- KOREA: *Chest Depth* — arms . . . lowered . . . at the level of the nipples.
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae
- NATO: *Chest Depth* — arms . . . lowered
- NAVY RECRUITS: *Chest Depth* — arms . . . lowered
- THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* -- arms at his sides

*Antero-Posterior Diameter of the Chest [Women]—HRDLIČKA (Continued)*

TUFTS: *Chest Depth* — at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove.

USAF '50: *Chest Depth* — arms . . . lowered . . . at the level of the nipples

USMC: *Chest Depth* — arms . . . lowered . . . at the level of the nipples

USN: *Chest Depth* — arms . . . lowered . . . at the level of the nipples

WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

**ANTERO-POSTERIOR DIAMETER OF THE THORAX, NO. 1  
[XIPHOID - INTERMEDIATE STAGE]**

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal.† †This measurement is . . . made in the horizontal plane at the level of base of ensiform [xiphoid] cartilage.† †measurement . . . made in intermediate stage† †extremes of inspiration and of expiration†.

No Data Available

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Depth* — at nipple level

ARMY '66: *Chest Depth* — at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Depth* — at nipple level

ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back

ARMY AVIATORS: *Chest Depth* — at nipple level . . . normal breathing

ARMY QM: *Chest Depth* — sliding arm of the anthropometer . . . just above the nipples . . . [anthropometer] †arms project downward and backward†  
Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* — from mesosternale . . .  
calm breathing and relaxed arms

FAA: *Chest Depth* — at the nipple line during normal breathing

*Antero-Posterior Diameter of the Thorax, no. 1*  
*[Xiphoid - Intermediate Stage]—GENEVA (Continued)*

- FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [calm respiration . . . at the . . . fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid — Mean]* — mean of measurements taken at extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale — Intermediate Stage]* — at the level of the upper border of the fourth chondro-sternal articulation
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale — Mean]* — at the level of the upper border of the fourth chondro-sternal articulation
- HRDLÍČKA: *Antero-Posterior Diameter of the Chest [Men]* — at the nipples †forearms flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees
- HRDLÍČKA: *Antero-Posterior Diameter of the Chest [Women]* — at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees
- INDIA: *Chest [Depth, Sitting]* — seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level
- KOREA: *Chest Depth* — at the level of the nipples . . . during normal breathing
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae
- NATO: *Chest Depth* — at the level of the nipples . . . during normal breathing
- NAVY RECRUITS: *Chest Depth* — at the level of the nipples during normal breathing
- THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* — at the level of the nipple during normal breathing
- TUFTS: *Chest Depth* — at nipple level
- USAF '50: *Chest Depth* — at the level of the nipples . . . during normal breathing
- USMC: *Chest Depth* — at the level of the nipples during normal breathing
- USN: *Chest Depth* — at the level of the nipples . . . during normal breathing
- WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

See Also:

*Trunk Depth*

## ANTERO-POSTERIOR DIAMETER OF THE THORAX, NO. 1 [XIPHOID - MEAN]

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal.† †This measurement is . . . made in the horizontal plane at level of base of ensiform [xiphoid] cartilage.† †Observer is to record the mean of measurements taken at extremes of inspiration and of expiration respectively†

No Data Available

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

- AAF: *Chest Depth* — at nipple level
- ARMY '66: *Chest Depth* — at the level of the nipples during normal breathing
- ARMY ARMORED: *Chest Depth* — at nipple level
- ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back
- ARMY AVIATORS: *Chest Depth* — at nipple level . . . normal breathing
- ARMY QM: *Chest Depth* — just above the nipples . . . [anthropometer] †arms project downward and backward† Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* — from mesosternale . . . calm breathing and relaxed arms
- FAA: *Chest Depth* — at the nipple line during normal breathing
- FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [calm respiration . . . at the . . . fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1 [Xiphoid — Intermediate Stage]* — intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale-Intermediate Stage]* — at the level of the upper border of the fourth chondro-sternal articulation
- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2 [Mesosternale — Mean]* — at the level of the upper border of the fourth chondro-sternal articulation
- HRDLIČKA: *Antero-Posterior Diameter of the Chest [Men]* — at the nipples †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees
- HRDLIČKA: *Antero-Posterior Diameter of the Chest [Women]* — at the line of

*Antero-Posterior Diameter of the Thorax, no. 1*  
[Xiphoid - Mean]—GENEVA (Continued)

the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
INDIA: *Chest [Depth, Sitting]* — seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level  
KOREA: *Chest Depth* — at the level of the nipples . . . during normal breathing  
MONTAGU: *Chest Depth* or *Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae  
NATO: *Chest Depth* — at the level of the nipples . . . during normal breathing  
NAVY RECRUITS: *Chest Depth* — at the level of the nipples during normal breathing  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* — at the level of the nipple during normal breathing  
TUFTS: *Chest Depth* — at nipple level  
USAF '50: *Chest Depth* — at the level of the nipples . . . during normal breathing  
USMC: *Chest Depth* — at the level of the nipples during normal breathing  
USN: *Chest Depth* — at the level of the nipples . . . during normal breathing  
WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

See Also:

*Trunk Depth*

**ANTERO-POSTERIOR DIAMETER OF THE THORAX, NO. 2**  
**[MESOSTERNAL - INTERMEDIATE STAGE]**

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface: no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal.† †This measurement is . . . made in the horizontal plane at the level of the upper border of the fourth chondro-sternal articulation† †in the intermediate stage† †extremes of inspiration and of expiration†.

No Data Available

*Antero-Posterior Diameter of the Thorax, no. 2*  
 [Mesosternale - Intermediate Stage]—GENEVA (Continued)

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Depth* — at nipple level  
 ARMY '66: *Chest Depth* — at the level of the nipples during normal breathing  
 ARMY ARMORED: *Chest Depth* — at nipple level  
 ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back  
 ARMY AVIATORS: *Chest Depth* — at nipple level . . . normal breathing  
 ARMY QM: *Chest Depth* — just above the nipples . . . [anthropometer] †arms project downward and backward† Pressure applied  
 BULGARIA: *Antero-Posterior Diameter of the Chest* — calm breathing and relaxed arms. Measured with pelvimeter  
 FAA: *Chest Depth* — at the nipple line during normal breathing  
 FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [calm respiration]  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1* [Xiphoid — Intermediate Stage] — at the level of ensiform [xiphoid] cartilage  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1* [Xiphoid — Mean] — at the level of base of ensiform [xiphoid] cartilage  
 GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2* [Mesosternale — Mean] — mean of . . . extremes of inspiration and of expiration  
 HRDLICKA: *Antero-Posterior Diameter of the Chest* [Men] — at the nipples †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
 HRDLICKA: *Antero-Posterior Diameter of the Chest* [Women] — forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
 INDIA: *Chest* [Depth, Sitting] — seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level  
 KOREA: *Chest Depth* — at the level of the nipples . . . during normal breathing  
 MONTAGU: *Chest Depth* or *Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae  
 NATO: *Chest Depth* — at the level of the nipples . . . during normal breathing  
 NAVY RECRUITS: *Chest Depth* — at the level of the nipples during normal breathing  
 THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* — at the level of the nipple during normal breathing  
 TUFTS: *Chest Depth* — at nipple level  
 USAF '50: *Chest Depth* — at the level of the nipples . . . during normal breathing  
 USMC: *Chest Depth* — at the level of the nipples during normal breathing  
 USN: *Chest Depth* — at the level of the nipples . . . during normal breathing

*Antero-Posterior Diameter of the Thorax, no. 2*  
[Mesosternale - Intermediate Stage]—GENEVA (Continued)

WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

See Also:

*Trunk Depth*

**ANTERO-POSTERIOR DIAMETER OF THE THORAX, NO. 2**  
[MESOSTERNALE - MEAN]

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface: no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal† This measurement is . . . made in the horizontal plane at the level of the upper border of the fourth chondro-sternal articulation† record the mean of the measurements taken at the extremes of inspiration and of expiration respectively.†

No Data Available

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Depth* — at nipple level

ARMY '66: *Chest Depth* — at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Depth* — at nipple level

ARMY ARMORED: *Chest Thickness* — Greatest thickness from front to back

ARMY AVIATORS: *Chest Depth* — at nipple level . . . normal breathing

ARMY QM: *Chest Depth* — just above the nipples . . . [anthropometer] †arms project downward and backward† Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* — calm breathing and relaxed arms. Measured with pelvimeter

FAA: *Chest Depth* — at the nipple line during normal breathing

FRANCE '65: *Diamètre antéro-postérieur de la poitrine* — [calm respiration]

*Antero-Posterior Diameter of the Thorax, no. 2*  
[Mesosternale - Mean]—GENEVA (Continued)

- GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1* [Xiphoid — Intermediate Stage] — at the level of ensiform [xiphoid] cartilage  
GENEVA: *Antero-Posterior Diameter of the Thorax, no. 1* [Xiphoid — Mean] — at level of base of ensiform [xiphoid] cartilage  
GENEVA: *Antero-Posterior Diameter of the Thorax, no. 2* [Mesosternale — Intermediate Stage] — measurement . . . made in the intermediate stage† extremes of inspiration and of expiration  
HRDLICKA: *Antero-Posterior Diameter of the Chest* [Men] — at the nipples †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
HRDLICKA: *Antero-Posterior Diameter of the Chest* [Women] — forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
INDIA: *Chest* [Depth, Sitting] — seat . . . adjusted . . . back against one wing of the board† block placed at nipple level  
KOREA: *Chest Depth* — at the level of the nipples . . . during normal breathing  
MONTAGU: *Chest Depth* or *Antero-Posterior Diameter of the Thorax* — At the level of the inferior angles of the scapulae  
NATO: *Chest Depth* — at the level of the nipples . . . during normal breathing  
NAVY RECRUITS: *Chest Depth* — at the level of the nipples during normal breathing  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* — at the level of the nipple during normal breathing  
TUFTS: *Chest Depth* — at nipple level  
USAF '50: *Chest Depth* — at the level of the nipples . . . during normal breathing  
USMC: *Chest Depth* — at the level of the nipples during normal breathing  
USN: *Chest Depth* — at the level of the nipples . . . during normal breathing  
WAC: *Chest Depth* — left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

See Also:

*Trunk Depth*

## ARM [LENGTH]

Reference: INDIA

†The height of the seat [ $13\frac{1}{2}$  in - 34.3 cm] is first adjusted by adding to or reducing the number of pieces of wooden blocks [ $\frac{1}{2}$  in - 1.27 cm] on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with

*Arm [Length]—INDIA (Continued)*

the back against one wing of the board and his right side touching the other wing† hand completely stretched at right angle to the body and pressed against the board, palm open facing inward. Block placed against the tip of the middle finger.

N: 691  
 $\bar{X}$ : 82.23 cm; 32.37 in  
SD: 3.50 cm; 1.38 in  
V%: [4.26]

**Similar Dimensions:**

**Equivalent:**

AAF: *Anterior Arm Reach*  
ARMY ARMORED: *Anterior Arm Reach*  
ARMY AVIATORS: *Arm Reach, Forward*  
FAA: *Arm Reach From Wall*  
KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*  
WASP: *Anterior Arm Reach*

**Not Equivalent:**

ARMY QM: *Arm Length* — arms at the sides and fingers extended  
FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* — [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
WASP: *Arm Length* — arm hangs at the side of the body

**Indeterminable:**

None

**See Also:**

*Functional Reach*

## ARM LENGTH

Reference: ARMY QM

Subject stands erect, with heels together and eyes straight ahead† with arms at the sides and fingers extended. With anthropometer held parallel to the longitudinal axis of the arm, measurement is taken from right acromiale †*the most lateral point on the superior surface of the acromion process*† to dactylion †*the tip of the middle finger*† with firm contact.

N: 24,449  
 $\bar{X}$ : 77.42 cm; 30.48 in  
SD: 3.53 cm; 1.39 in  
V%: [4.5]

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

COMAS: *Total Upper Extremity Length* — acromiale †*most distal point, palpable from above*† to dactylion

INDIA: *Arm [Length]* — hand [and arm] completely stretched at right angle to the body

MARTIN: *Armlaenge ohne Hand* — [acromion †*on the lateral edge*† to stylium]

MARTIN: *Ganze Armlaenge rechts* — [acromion †*on the lateral edge*† to dactylion]

MONTAGU: *Total Arm Length* — acromion †*most lateral projection of lateral border*† to stylium

MONTAGU: *Total Upper Extremity Length* — acromion †*most lateral projection of lateral border*† to dactylion

RAF-RCAF: *Arm Length* — arms extended horizontally

WASP: *Arm Length* — top of clavicle to the tip of the middle finger

WOMEN: *Total Posterior Arm Length* — right fist was placed on her hip . . . tape was passed over the olecranon

#### Indeterminable:

In the following, acromion is not defined.

BULGARIA: *Length of the Arm*

FRANCE '65: *Longueur acromio-dactylion*

## ARM LENGTH

Reference: RAF-RCAF

Subject sits on a stool with thighs horizontal, and both shoulders firmly against the back board. With arm extended horizontally the right arm is pressed against the wing board with fingers extended and palms facing inwards, and the distance from the back board to the tip of the right middle finger measured with the measuring block.

RAF	RCAF
N: 4357	314
$\bar{X}$ : 85.34 cm; 33.60 in	84.91 cm; 33.43 in
SD: 4.14 cm; 1.63 in	4.06 cm; 1.60 in
V%: [4.9]	[4.8]

### Similar Dimensions:

#### Equivalent:

AAF: *Anterior Arm Reach*  
 ARMY ARMORED: *Anterior Arm Reach*  
 ARMY AVIATORS: *Arm Reach, Forward*  
 FAA: *Arm Reach From Wall*  
 INDIA: *Arm [Length]*  
 KOREA: *Arm Reach From Wall*  
 TUFTS: *Anterior Arm Reach*  
 USAF '50: *Arm Reach From Wall*  
 WASP: *Anterior Arm Reach*

#### Not Equivalent:

ARMY QM: *Arm Length* — arms at the sides and fingers extended  
 FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
 FRANCE '65: *Longueur utile du membre supérieur* — [not against a plane]  
 KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
 THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
 USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
 VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

*Arm Length—RAF-RCAF (Continued)*

Indeterminable:

None

See Also:

*Functional Reach*

**ARM LENGTH**

Reference: WASP

Length of arm from top of clavicle to the tip of the middle finger as the arm hangs at the side of the body.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 445	152
$\bar{X}$ : 72.66 cm; 28.6 in	71.72 cm; 28.2 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

None

Not Equivalent:

ARMY QM: *Arm Length* — acromiale †most lateral point on the superior surface† to dactylion

BULGARIA: *Length of the Arm* — from the acromion

COMAS: *Total Upper Extremity Length* — acromiale †most distal point, palpable from above† to dactylion

FRANCE '65: *Longueur acromio-dactylion* — [from the acromion]

INDIA: *Arm [Length]* — hand [and arm] completely stretched at right angle to the body

MARTIN: *Armlaenge rechts ohne Hand* — [acromion †on the lateral edge† to stylium]

MARTIN: *Ganze Armlaenge rechts* — [acromion †on the lateral edge† to dactylion]

MONTAGU: *Total Arm Length* — acromion †most lateral projection to lateral border† to stylium

*Arm Length—WASP (Continued)*

MONTAGU: *Total Upper Extremity Length* — acromion †most lateral projection of lateral border† to dactylion

RAF-RCAF: *Arm Length* — arms extended horizontally

WOMEN: *Total Posterior Arm Length* — right fist was placed on her hip . . . tape was passed over the olecranon

Indeterminable:

None

**ARM LENGTH, SHOULDER TO SCYE**

**Reference: WOMEN**

Tape . . . The subject stood erect, arms hanging at her sides . . . The zero point of the tape was placed at the shoulder point †midway between the acromion and the highest point at the lateral end of the clavicle† and the tape extended to the armscye level, the reading being taken at the intersection of the armscye level and the bisecting line of the upper arm †The width of the upper arm was bisected, by sighting [from the side]†.

N: 10042  
 $\bar{X}$ : 13.92 cm; 5.48 in  
SD: 1.73 cm; 0.68 in  
V%: 12.4

**Similar Dimensions:**

None

**ARM REACH, FORWARD**

**Reference: ARMY AVIATORS**

The distance from the wall to the end of the middle finger, taken while the subject is sitting, with his shoulders against the wall and with his right arm and hand extended horizontally in front of him.

N: 500  
 $\bar{X}$ : 91.47 cm; 36.01 in  
SD: 3.72 cm; 1.47 in  
V%: [4.06]

*Arm Reach, Forward—ARMY AVIATORS (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Anterior Arm Reach*  
ARMY ARMORED: *Anterior Arm Reach*  
FAA: *Arm Reach From Wall*  
INDIA: *Arm [Length]*  
KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*  
WASP: *Anterior Arm Reach*

**Not Equivalent:**

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

**Indeterminable:**

None

**See Also:**

*Functional Reach*

**ARM REACH, FORWARD**

**Reference: THAI**

†Subject sitting erect on table or bench.‡ With right arm and hand extended horizontally in front of subject, measured as distance from back of shoulder (greatest bulge of trapezius) to tip of middle finger (dactylion).

*Arm Reach Forward—THAI (Continued)*

N: 2950  
 $\bar{X}$ : 81.7 cm; 32.2 in  
SD: 4.3 cm; 1.7 in  
V%: 5.3

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur utile du membre supérieur*  
VIETNAM: *Arm Reach Forward*

**Not Equivalent:**

AAF: *Anterior Arm Reach* — [standing] against wall  
ARMY ARMORED: *Anterior Arm Reach* — [standing] against wall  
ARMY AVIATORS: *Arm Reach, Forward* — sitting . . . shoulders against the wall  
FAA: *Arm Reach From Wall* — subject stands . . . shoulders firmly against the wall  
FAA: *Maximum Reach From Wall* — subject stands . . . back to the wall  
INDIA: *Arm [Length]* — back against . . . board  
KOREA: *Arm Reach From Wall* — shoulders pressed against the rear wall  
KOREA: *Maximum Reach From Wall* — back pressed against the rear wall  
RAF-RCAF: *Arm Length* — both shoulders firmly against the back board  
TUFTS: *Anterior Arm Reach* — [shoulder] contacts maintained  
USAF '50: *Arm Reach From Wall* — shoulders pressed against the rear wall  
USAF '50: *Maximum Reach From Wall* — back pressed against the rear wall  
WASP: *Anterior Arm Reach* — [standing] . . . against wall

**Indeterminable:**

None

**See Also:**

*Functional Reach*

**ARM REACH FORWARD**

**Reference: VIETNAM**

†Subject sitting erect on table or bench.† With right arm and hand extended horizontally in front of subject, measured as distance from back of shoulder (greatest bulge of trapezius) to tip of middle finger (dactylion).

*Arm Reach Forward—VIETNAM (Continued)*

N: 2125  
 $\bar{X}$ : 81.3 cm; 32.01 in  
SD: 3.4 cm; 1.3 in  
V%: 4.2

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur utile du membre supérieur*  
THAI: *Arm Reach Forward*

**Not Equivalent:**

AAF: *Anterior Arm Reach* — [standing] against wall  
ARMY ARMORED: *Anterior Arm Reach* — [standing] against wall  
ARMY AVIATORS: *Arm Reach, Forward* — sitting . . . shoulders against the wall  
FAA: *Arm Reach From Wall* — subject stands . . . shoulders firmly against the wall  
FAA: *Maximum Reach From Wall* — subject stands . . . back to the wall  
INDIA: *Arm [Length]* — back against . . . board  
KOREA: *Arm Reach From Wall* — shoulders pressed against the rear wall  
KOREA: *Maximum Reach From Wall* — back pressed against the rear wall  
RAF-RCAF: *Arm Length* — both shoulders firmly against the back board  
TUFTS: *Anterior Arm Reach* — [shoulder] contacts maintained  
USAF '50: *Arm Reach From Wall* — shoulders pressed against the rear wall  
USAF '50: *Maximum Reach From Wall* — back pressed against the rear wall  
WASP: *Anterior Arm Reach* — [standing] . . . against wall

**Indeterminable:**

None

**See Also:**

*Functional Reach*

## **ARM REACH FROM WALL**

**Reference: FAA**

The subject stands erect with shoulders firmly against the wall and extends his left arm horizontally, with fingers extended. The distance between the tip of the third finger and the wall is measured.

*Arm Reach From Wall—FAA (Continued)*

N: 681  
 $\bar{X}$ : 82.80 cm; 32.60 in  
SD: 4.07 cm; 1.60 in  
V%: 4.91

**Similar Dimensions:**

**Equivalent:**

AAF: *Anterior Arm Reach*  
ARMY ARMORED: *Anterior Arm Reach*  
ARMY AVIATORS: *Arm Reach, Forward*  
INDIA: *Arm [Length]*  
KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*  
WASP: *Anterior Arm Reach*

**Not Equivalent:**

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

**Indeterminable:**

None

**See Also:**

*Functional Reach*

**ARM REACH FROM WALL**

**Reference: KOREA**

Subject stands erect in a corner of the room, his shoulders pressed against the rear

*Arm Reach From Wall—KOREA (Continued)*

wall, his right arm and hand extended horizontally along the side wall. Using the scale on the side wall, measure the distance from the rear wall to the tip of the longest finger.

N: 264  
 $\bar{X}$ : 77.36 cm; 30.45 in  
SD: 3.85 cm; 1.52 in  
V%: 4.98

**Similar Dimensions:**

**Equivalent:**

AAF: *Anterior Arm Reach*  
ARMY ARMORED: *Anterior Arm Reach*  
ARMY AVIATORS: *Arm Reach, Forward*  
FAA: *Arm Reach From Wall*  
INDIA: *Arm [Length]*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
USAF '50: *Arm Reach From Wall*  
WASP: *Anterior Arm Reach*

**Not Equivalent:**

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

**Indeterminable:**

None

**See Also:**

*Functional Reach*

## ARM REACH FROM WALL

Reference: USAF '50

Subject stands erect in a corner of the room, his shoulders pressed against the rear wall, his right arm and hand extended horizontally along the side wall. Using the scale on the side wall, measure the distance from the rear wall to the tip of the longest finger.

N: 4062  
 $\bar{X}$ : 87.86 cm; 34.59 in  
SD: 4.18 cm; 1.67 in  
V%: 4.76

### Similar Dimensions:

#### Equivalent:

AAF: *Anterior Arm Reach*  
ARMY ARMORED: *Anterior Arm Reach*  
ARMY AVIATORS: *Arm Reach, Forward*  
FAA: *Arm Reach From Wall*  
INDIA: *Arm [Length]*  
KOREA: *Arm Reach From Wall*  
RAF-RCAF: *Arm Length*  
TUFTS: *Anterior Arm Reach*  
WASP: *Anterior Arm Reach*

#### Not Equivalent:

FAA: *Maximum Reach From Wall* — thrusting his right shoulder as far forward as possible  
FRANCE '65: *Longueur utile du membre supérieur* [not against a plane]  
KOREA: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
THAI: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]  
USAF '50: *Maximum Reach From Wall* — right shoulder thrust as far forward as possible  
VIETNAM: *Arm Reach Forward* — Subject sitting erect on table or bench [not against a plane]

#### Indeterminable:

None

#### See Also:

*Functional Reach*

## ARM REACH UPWARD

Reference: ARMY AVIATORS

The vertical distance from the seat surface to the end of the middle finger, taken while the subject is sitting, with his right arm and hand extended above his head.

N: 500  
 $\bar{X}$ : 137.29 cm; 54.05 in  
SD: 5.21 cm; 2.05 in  
V%: [3.7]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

The reference dimension does not specify sitting posture.

ARMY '66: *Vertical Arm Reach, Sitting*

FAA: *Vertical Arm Reach, Sitting*

NAVY RECRUITS: *Vertical Arm Reach, Sitting*

THAI: *Arm Reach Upward*

USMC: *Vertical Arm Reach, Sitting*

VIETNAM: *Arm Reach Upward*

## ARM REACH UPWARD

Reference: THAI

†Subject sitting erect on table or bench†. With right arm and hand extended vertically above shoulder, measured as distance from table surface to tip of middle finger (dactylion).

N: 2950  
 $\bar{X}$ : 131.2 cm; 51.7 in  
SD: 4.7 cm; 1.9 in  
V%: 3.6

Similar Dimensions:

Equivalent:

ARMY '66: *Vertical Arm Reach, Sitting*

*Arm Reach Upward—THAI (Continued)*

FAA: *Vertical Arm Reach, Sitting*  
NAVY RECRUITS: *Vertical Arm Reach, Sitting*  
USMC: *Vertical Arm Reach, Sitting*  
VIETNAM: *Arm Reach Upward*

Not Equivalent:

None

Indeterminable:

ARMY AVIATORS: *Arm Reach, Upward*—[Sitting posture not specified]

**ARM REACH UPWARD**

Reference: VIETNAM

†Subject sitting erect on table or bench†. With right arm and hand extended vertically above shoulder, measured as distance from table surface to tip of middle finger (dactylion).

N: 2129  
 $\bar{X}$ : 129.8 cm; 51.1 in  
SD: 4.8 cm; 1.9 in  
V%: 3.7

Similar Dimensions:

Equivalent:

ARMY '66: *Vertical Arm Reach, Sitting*  
FAA: *Vertical Arm Reach, Sitting*  
NAVY RECRUITS: *Vertical Arm Reach, Sitting*  
THAI: *Arm Reach Upward*  
USMC: *Vertical Arm Reach, Sitting*

Not Equivalent:

None

Indeterminable:

ARMY AVIATORS: *Arm Reach, Upward*—[Sitting posture not specified]

## ARM SCYE [CIRCUMFERENCE]

Reference: ARMY QM

†Subject stands erect, with heels together and eyes straight ahead† The arm is held horizontally while the tape is passed through the axilla. After the arm is lowered, the tape is brought up over the acromion process, with the outside edge of the tape crossing acromiale †the most lateral point on the superior surface of the acromion process †.

N: 24383  
X: 43.40 cm; 17.09 in  
SD: 2.98 cm; 1.17 in  
V%: [6.9]

Similar Dimensions:

Equivalent:

ARMY '66: *Arm Scye Circumference*  
JAPAN: *Scye Circumference*  
KOREA: *Scye Circumference*  
NATO: *Scye Circumference*  
NAVY RECRUITS: *Arm Scye Circumference*  
USAF '50: *Scye Circumference*  
USMC: *Arm Scye Circumference*  
USN: *Scye Circumference*  
WAC: *Arm Scye [Circumference]*

Not Equivalent:

WAF RECRUITS: *Arm Scye [Circumference]*—vertically over the shoulder  
WOMEN: *Armscye Girth*—midway between acromion and the highest point at the lateral end of the clavicle

Indeterminable:

None

See Also:

*Axillary Arm Circumference*

## ARM SCYE [CIRCUMFERENCE]

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon but with feet

*Arm Scye [Circumference]—WAC (Continued)*

slightly apart.† The arm was raised high enough to permit passage of tape and then lowered for measurement. Measurement taken as circumference from acromiale †the most lateral point on the superior surface of the acromial process† through the axilla and back to acromiale. Left side only.

N: 8523  
 $\bar{X}$ : 38.06 cm; 14.98 in  
SD: 3.22 cm; 1.27 in  
V%: [8.5]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Arm Scye Circumference*  
ARMY QM: *Arm Scye [Circumference]*  
JAPAN: *Scye Circumference*  
KOREA: *Scye Circumference*  
NATO: *Scye Circumference*  
NAVY RECRUITS: *Arm Scye Circumference*  
USAF '50: *Scye Circumference*  
USMC: *Arm Scye Circumference*  
USN: *Scye Circumference*

**Not Equivalent:**

WAF RECRUITS: *Arm Scye [Circumference]*—vertically over the shoulder  
WOMEN: *Armseye Girth*—midway between acromion and the highest point at the lateral end of the clavicle

**Indeterminable:**

None

**See Also:**

*Axillary Arm Circumference*

## ARM SCYE [CIRCUMFERENCE]

**Reference: WAF RECRUITS**

Subject stands. Place the tape through the armpit of the right arm and, with the arm lowered, measure the circumference vertically over the shoulder.

*Arm Scye [Circumference]—WAC RECRUITS (Continued)*

N: 851  
 $\bar{X}$ : 36.65 cm; 14.43 in  
SD: 3.03 cm; 1.19 in  
V%: 8.26

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Arm Scye Circumference*—over the outer point (acromion)  
ARMY QM: *Arm Scye [Circumference]*—over the acromion process  
JAPAN: *Scye Circumference*—passing over acromion  
KOREA: *Scye Circumference*—passing over acromion  
NATO: *Scye Circumference*—passing over the acromion  
NAVY RECRUITS: *Arm Scye Circumference*—over the outer point (acromion)  
USAF '50: *Scye Circumference*—passing over acromion  
USMC: *Arm Scye Circumference*—passing over the outer point (acromion)  
USN: *Scye Circumference*—passing over the acromion  
WAC: *Arm Scye [Circumference]*—from acromiale  
WOMEN: *Armscye Girth*—midway between acromion and the highest point at the lateral end of the clavicle

**Indeterminable:**

None

## **ARM SCYE CIRCUMFERENCE**

**Reference: ARMY '66**

Subject stands erect, with his right arm initially raised and then lowered after the tape is in place. The vertical circumference of the scye (sleeve armhole area) is measured. A steel tape is used, with the tape passing under the right armpit and over the outer point (acromion) of the right shoulder.

N: 6682  
 $\bar{X}$ : 44.55 cm; 17.54 in  
SD: 3.25 cm; 1.28 in  
V%: 7.32

*Arm Scye Circumference—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Arm Scye [Circumference]*  
JAPAN: *Scye Circumference*  
KOREA: *Scye Circumference*  
NATO: *Scye Circumference*  
NAVY RECRUITS: *Arm Scye Circumference*  
USAF '50: *Scye Circumference*  
USMC: *Arm Scye Circumference*  
USN: *Scye Circumference*  
WAC: *Arm Scye [Circumference]*

**Not Equivalent:**

WAF RECRUITS: *Arm Scye [Circumference]*—vertically over the shoulder  
WOMEN: *Armscye Girth*—midway between acromion and the highest point at the lateral end of the clavicle

**Indeterminable:**

None

**See Also:**

*Axillary Arm Circumference*

**ARM SCYE CIRCUMFERENCE**

**Reference: NAVY RECRUITS**

Subject stands erect, with his right arm initially raised and then lowered after the tape is in place. The vertical circumference of the scye (sleeve armhole area) is measured. A steel tape is used, with the tape passing under the right armpit and over the outer point (acromion) of the right shoulder.

N: 4094  
 $\bar{X}$ : 43.25 cm; 17.03 in  
SD: 3.20 cm; 1.26 in  
V%: 7.40

*Arm Scye Circumference—NAVY RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Arm Scye Circumference*  
ARMY QM: *Arm Scye [Circumference]*  
JAPAN: *Scye Circumference*  
KOREA: *Scye Circumference*  
NATO: *Scye Circumference*  
USAF '50: *Scye Circumference*  
USMC: *Arm Scye Circumference*  
USN: *Scye Circumference*  
WAC: *Arm Scye [Circumference]*

**Not Equivalent:**

WAF RECRUITS: *Arm Scye [Circumference]*—vertically over the shoulder  
WOMEN: *Armscye Girth*—midway between acromion and the highest point at the lateral end of the clavicle

**Indeterminable:**

None

**See Also:**

*Axillary Arm Circumference*

**ARM SCYE CIRCUMFERENCE**

**Reference: USMC**

Subject stands erect, with his right arm initially raised and then lowered after the tape is in place. The vertical circumference of the scye (sleeve armhole area) is measured. A steel tape is used, with the tape passing under the right armpit and over the outer point (acromion) of the right shoulder.

N: 2008  
 $\bar{X}$ : 44.67 cm; 17.59 in  
SD: 2.94 cm; 1.16 in  
V%: 6.58

*Arm Scye Circumference—USMC (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Arm Scye Circumference*  
ARMY QM: *Arm Scye [Circumference]*  
JAPAN: *Scye Circumference*  
KOREA: *Scye Circumference*  
NATO: *Scye Circumference*  
NAVY RECRUITS: *Arm Scye Circumference*  
USAF '50: *Scye Circumference*  
USN: *Scye Circumference*  
WAC: *Arm Scye [Circumference]*

**Not Equivalent:**

WAF RECRUITS: *Arm Scye [Circumference]*—vertically over the shoulder  
WOMEN: *Armscye Girth*—midway between acromion and the highest point at the lateral end of the clavicle

**Indeterminable:**

None

**See Also:**

*Axillary Arm Circumference*

**ARM SPAN**

**Reference: FAA**

Horizontal distance between tips of longest fingers of right and left hands, with arms extended laterally.

N: 677  
X: 181.16 cm; 71.33 in  
SD: 7.60 cm; 2.99 in  
V%: 4.19

**Similar Dimensions:**

**Equivalent:**

AAF: *Total Span*

*Arm Span—FAA (Continued)*

ARMY ARMORED: *Total Span*  
FRANCE '65: *Grande envergure*  
GENEVA: *Span*  
HRDLICKA: *Finger Reach*  
INDIA: *Maximum Span*  
KOREA: *Span*  
MARTIN: *Spannweite der Arme*  
MONTAGU: *Span*  
NORWAY: *Arm Span*  
TUFTS: *Total Span*  
USAF '50: *Span*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Span Akimbo*

## ARM SPAN

Reference: NORWAY

Arm span is to be measured against a wall. A piece of millimetre paper, 40 cm in breadth, is fastened on the wall, in such a position that it forms a tape measure on the wall with "zero" in the corner at the cross-wall. The centimetres are marked off by vertical lines in the interval between 175 cm and 210 cm. The recruit stands with his back against the wall, arms outstretched, the palm of the hand forward. The middle finger should just touch the cross-wall. The arm span can then be read directly on the millimetre paper to the nearest whole centimetre.

N: 5765  
 $\bar{X}$ : 179.35 cm; 70.61 in  
SD: 7.18 cm; 2.83 in  
V%: 4.00

*Arm Span—NORWAY (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Total Span*  
ARMY ARMORED: *Total Span*  
FAA: *Arm Span*  
FRANCE '65: *Grande envergure*  
GENEVA: *Span*  
HRDLICKA: *Finger Reach*  
INDIA: *Maximum Span*  
KOREA: *Span*  
MARTIN: *Spannweite der Arme*  
MONTAGU: *Span*  
TUFTS: *Total Span*  
USAF '50: *Span*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Span Akimbo*

**ARMLAENGE RECHTS OHNE HAND  
[ARM LENGTH, RIGHT, EXCLUDING HAND]**

**Reference: MARTIN**

Geradlinige Entfernung des Akromion †derjenige Punkt des Seitenrandes des Processus acromialis des Schulterblattes, der bei aufrechter Koerperhaltung und haengendem Arm am meisten seitlich gelegen ist† vom Stylium †derjenige Punkt des Processus styloideus, der bei haengendem Arm am meisten nach unten gerichtet ist†. Stangenzirkel.

[Straight line distance from acromion †that point on the lateral edge of the acromial process of the scapula which is located most laterally if the posture is erect and the

*Armlaenge Rechts Ohne Hand [Arm Length, Right, Excluding Hand]—MARTIN (Continued)*

*arm is hanging† to stylium †that point on the radial styloid which is most inferior with the arm hanging†. Beam Caliper.]*

No Data Available

**Similar Dimensions:**

**Equivalent:**

MONTAGU: *Total Arm Length*

**Not Equivalent:**

ARMY QM: *Arm Length—acromiale †most lateral point on the superior surface† to dactylion*

BULGARIA: *Length of the Arm—to the tip of the middle finger*

COMAS: *Total Upper Extremity Length—acromiale †most distal point, palpable from above† to dactylion*

FRANCE '65: *Longueur acromio-dactylion—[to the lower end of the middle finger]*

MARTIN: *Ganze Armlaenge Rechts—[acromion †on the lateral edge† to dactylion]*

MONTAGU: *Total Upper Extremity Length—acromion †most lateral projection of lateral border† to dactylion*

WASP: *Arm Length—top of clavicle to the tip of the middle finger*

WOMEN: *Total Posterior Arm Length—right fist was placed on her hip . . . tape was passed over the olecranon*

**Indeterminable:**

None

## ARMSCYE GIRTH

**Reference: WOMEN**

Tape. . . The subject's position was her normal posture with feet together and arms relaxed at her sides . . . The subject's right arm was raised sufficiently to permit the measurer to place the tape under it with the thin edge of the tape passed through the underarm midpoint †placed with reference to the natural folds in the armpit and the total width of the shoulder. The level of the midpoint was set with respect to the more clearly defined folds. . . A short, thin line on the trunk marked the underarm scye level. A vertical line indicating half of the total width of the shoulder was drawn through this to give the underarm midpoint of the trunk† and the zero point falling just below the armscye at the back. The case end of the tape was brought up over the shoulder and the case allowed to drop down over

*Armscye Girth—WOMEN (Continued)*

the back, thus providing the tension for this measurement. The anterior folds at the axillary fossa of the arm were eased under the tape. The lateral margin of the tape was fitted to the armscye, anterior and posterior, as well as to the armscye-shoulder line intersection †*the shoulder point used was midway between the acromion and the highest point at the lateral end of the clavicle . . . intersecting with the sighted center of the shoulder*†. The loop of the tape was raised without unduly binding the posterior folds at the axillary fossa. The zero point of the tape was placed laterally with respect to the case end of the tape and the measurement was read.

N: 10042  
X: 40.89 cm; 16.10 in  
SD: 3.94 cm; 1.55 in  
V%: 9.6

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Arm Scye Circumference*—over the outer point (acromion)  
ARMY QM: *Arm Scye*—over the acromion process  
JAPAN: *Scye Circumference*—passing over acromion  
KOREA: *Scye Circumference*—passing over acromion  
NATO: *Scye Circumference*—passing over the acromion  
NAVY RECRUITS: *Arm Scye Circumference*—over the outer point (acromion)  
USAF '50: *Scye Circumference*—passing over acromion  
USMC: *Arm Scye Circumference*—over the outer point (acromion)  
USN: *Scye Circumference*—passing over the acromion  
WAC: *Arm Scye*—from acromiale  
WAF RECRUITS: *Arm Scye*—vertically over the shoulder

**Indeterminable:**

None

**AUDITORY CANAL [HEIGHT]**

**Reference. GENEVA**

†The subject stands erect on a horizontal and resisting plane surface. . . . No support is to be given by a vertical plane: the upper limbs are pendant† . . . anatom-

*Auditory Canal [Height]—GENEVA (Continued)*

ical landmark (point de repère): the bottom of the notch between the tragus and the helix. †the height of the "anatomical landmark" above the ground is to be determined†.

No Data Available

**Similar Dimensions:**

**Equivalent:**

FAA: *Tragion Height*  
KOREA: *Tragion Height*  
USAF '50: *Tragion Height*  
USN: *Tragion Height*

While the reference dimension description does not specify head position adequately, it is assumed that this dimension is virtually unaffected by small variance in head position because of the relationship of tragion and the center of fore and aft rotation.

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Tragion-to-Vertex*  
*Tragion-to-Wall*

## AXILLA HEIGHT

**Reference: WAF RECRUITS**

Subject stands with her arms raised slightly. The cross bar of the anthropometer is raised until it comes just under the right armpit. The subject then lowers her arms. Care is taken that both shoulders are level before reading the anthropometer.

N: 851  
 $\bar{X}$ : 123.81 cm; 48.74 in  
SD: 5.65 cm; 2.22 in  
V%: 4.56

**Similar Dimensions:**

None

*Axillary Arm Circumference—JAPAN (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Axillary Arm Circumference*  
KOREA: *Axillary Arm Circumference*  
USAF '50: *Axillary Arm Circumference*  
USN: *Axillary Arm Circumference*  
WAF RECRUITS: *Axillary Arm Circumference*  
WOMEN: *Upper-Arm Girth*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Arm Scye Circumference*  
*Biceps Circumference, Relaxed*

**AXILLARY ARM CIRCUMFERENCE**

**Reference: KOREA**

Subject stands, his right arm initially raised and then lowered after the tape is in place. Holding the tape in a horizontal plane and as high as possible in the armpit, measure the circumference of the upper arm.

N: 264  
 $\bar{X}$ : 29.69 cm; 11.69 in  
SD: 2.48 cm; 0.98 in  
V%: 8.3%

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Axillary Arm Circumference*  
JAPAN: *Axillary Arm Circumference*  
USAF '50: *Axillary Arm Circumference*  
USN: *Axillary Arm Circumference*

*Axillary Arm Circumference—KOREA (Continued)*

WAF RECRUITS: *Axillary Arm Circumference*  
WOMEN: *Upper-Arm Girth*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Arm Scye Circumference*  
*Biceps Circumference, Relaxed*

**AXILLARY ARM CIRCUMFERENCE**

Reference: USAF '50

Subject stands, his right arm initially raised and then lowered after the tape is in place. Holding the tape in a horizontal plane and as high as possible in the armpit, measure the circumference of the upper arm.

N: 4060  
 $\bar{X}$ : 31.85 cm; 12.54 in  
SD: 2.79 cm; 1.10 in  
V%: 8.76

Similar Dimensions:

Equivalent:

ARMY QM: *Axillary Arm Circumference*  
JAPAN: *Axillary Arm Circumference*  
KOREA: *Axillary Arm Circumference*  
USN: *Axillary Arm Circumference*  
WAF RECRUITS: *Axillary Arm Circumference*  
WOMEN: *Upper-Arm Girth*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Arm Scye Circumference*  
*Biceps Circumference, Relaxed*

## AXILLARY ARM CIRCUMFERENCE

Reference: USN

Subject stands, his right arm initially raised and then lowered after the tape is in place. Holding the tape in a horizontal plane and as high as possible in the armpit, measure the circumference of the upper arm.

N: 1549  
 $\bar{X}$ : 33.02 cm; 13.00 in  
SD: 2.48 cm; 0.98 in  
V%: 7.51

Similar Dimensions:

Equivalent:

ARMY QM: *Axillary Arm Circumference*  
JAPAN: *Axillary Arm Circumference*  
KOREA: *Axillary Arm Circumference*  
USAF '50: *Axillary Arm Circumference*  
WAF RECRUITS: *Axillary Arm Circumference*  
WOMEN: *Upper-Arm Girth*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Arm Scye Circumference*  
*Biceps Circumference, Relaxed*

## AXILLARY ARM CIRCUMFERENCE

Reference: WAF RECRUITS

Subject stands. Place the tape as high as possible in the armpit of the right arm and, with the arm at the subject's side, measure the circumference in a horizontal plane.

N: 850  
 $\bar{X}$ : 27.90 cm; 10.99 in

*Axillary Arm Circumference—WAF RECRUITS (Continued)*

SD: 2.40 cm; 0.95 in  
V%: 8.61

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Axillary Arm Circumference*  
JAPAN: *Axillary Arm Circumference*  
KOREA: *Axillary Arm Circumference*  
USAF '50: *Axillary Arm Circumference*  
USN: *Axillary Arm Circumference*  
WOMEN: *Upper-Arm Girth*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Arm Scye Circumference*  
*Biceps Circumference, Relaxed*

## AXILLARY CHEST GIRTH

**Reference: MONTAGU**

(Tape). The tape applied well up in the axillary fossae. Mean reading of measurements during normal inspiration and expiration.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AUSTRALIA: *Chest [Circumference]*—[When reference dimension is measured on men.]  
COMAS: *Chest Circumference [Axillary, Calm Respiration]*—[When measured on same sex as that of the reference dimension.]

*Axillary Chest Girth—MONTAGU (Continued)*

**Not Equivalent:**

- AAF: *Chest Circumference*—just above nipples
- ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- ARMY ARMORED: *Chest Circumference*—just above nipples
- ARMY AVIATORS: *Chest Circumference*—at nipple level
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples
- AUSTRALIA: *Chest [Circumference]*—[When reference dimension is measured on women.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—[When measured on opposite sex as that of reference dimension.]
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation

*Axillary Chest Girth—MONTAGU (Continued)*

- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—at the nipples
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men] — at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men]—at the nipples . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration] — at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation] — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation] — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference* — Maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoïdien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoïdien inspiration forcée* — [forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate]—horizontal plane . . . base of ensiform cartilage
- GENEVA: *Thoracic Circumference* [Mean]—horizontal plane . . . base of ensiform cartilage . . . mean of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[maximum expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen* — [When measured on opposite sex as that of reference dimension.]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum . . . expiration]

*Axillary Chest Girth—MONTAGU (Continued)*

MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]  
MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]  
MONTAGU: *Mesosternale Chest Girth*—[When measured on opposite sex as that of reference dimension.]  
NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing  
NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing  
THAI: *Chest Circumference*—[at level of nipples]  
THOUSAND AVIATORS: *Chest Circumference Expiration* — at fourth intercostal space . . . at maximal expiration  
THOUSAND AVIATORS: *Chest Circumference Inspiration* — at fourth intercostal space . . . at maximal inspiration  
THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at fourth intercostal space  
TUFTS: *Chest Circumference*—just above nipples  
USAF '50: *Chest Circumference*—nipples . . . maximum . . . during normal breathing  
USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing  
USN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing  
VIETNAM: *Chest Circumference*—nipples  
WAC: *Breast Circumference*—passing over both nipples. [Bra]  
WAC: *Chest Circumference*—horizontally just below the breasts [Bra]  
WAF RECRUITS: *Bust Circumference*—at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]  
WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across front above fullness of the breasts . . . [Bra]  
WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below fullness of the breasts . . . [Bra]  
WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]  
WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]  
WOMEN: *Chest Girth at Armscye*—[Subject wore a snug bandeaux.]

**Indeterminable:**

Passage of tape across subject's chest is not described in the reference dimension.

MARTIN: *Umfang der Brust bei ruhigem Atmen*—[When measured on same sex as that of reference dimension.]

MONTAGU: *Mesosternale Chest Girth*—[When measured on same sex as that of reference dimension.]

## BACK HEIGHT

Reference: HOOTON

[In special chair.] The back height was . . . measured by pulling up the back-height rod and placing the crutch-like end of its transverse arm (at right angles to the rod and extending forward towards the back of the subject's head) at the point of junction between the head and neck. This point, roughly called the "nape of the neck," is actually the region of the first and second cervical vertebrae, and is easily located in most people, even in women wearing long hair. During this measurement the subject was, if necessary, asked to sit erect.

<i>Males</i>	<i>Females</i>	<i>Total Series</i>
N: 1959	1908	3867
Median: 72.6 cm; 28.6 in	67.8 cm; 26.7 in	70.1 cm; 27.6 in
SD: NDA	NDA	NDA
V%: NDA	NDA	NDA

Similar Dimensions:

Equivalent:

TUFTS: *Back Height*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Sitting Height*: WOMEN

## BACK HEIGHT

Reference: TUFTS

In the Seating Survey, a comparable measure called "back height" was used. The clothed subject was seated erect in special chair; the back height rod was adjusted so that transverse bar rested against back of neck between first and second vertebrae and the distance from seat of chair measured.

No Data Available

***Back Height—TUFTS (Continued)***

**Similar Dimensions:**

**Equivalent:**

**HOOTEN: *Back Height***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**See Also:**

***Sitting Height: WOMEN***

**BACK WAIST LENGTH**

**Reference: ARMY AVIATORS**

The distance, along the surface of the back, from the largest bony bump (cervicale) at the base of the back of the neck to the point where the waist level crosses the spine.

**N: 500**

**$\bar{X}$ : 46.15 cm; 18.17 in**

**SD: 2.97 cm; 1.17 in**

**V%: [6.4]**

**Similar Dimensions:**

**Equivalent:**

**None**

**Not Equivalent:**

**None**

**Indeterminable:**

The reference dimension description does not define waist level.

*Back Waist Length—ARMY AVIATORS (Continued)*

ARMY '66: *Waist Back Length*  
AUSTRALIA: *Natural Waist Length*  
JAPAN: *Waist Back*  
KOREA: *Waist Back*  
NATO: *Waist Back-Omphalion*  
NAVY RECRUITS: *Waist Back Length*  
THAI: *Back Waist Length*  
USAF '50: *Waist Back*  
USMC: *Waist Back Length*  
VIETNAM: *Back Waist Length*  
WAC: *Back Waist Length*  
WAF RECRUITS: *Waist Back*  
WOMEN: *Posterior Waist Length*

**BACK WAIST LENGTH**

**Reference: THAI**

Measured as distance along surface of back from base of neck (cervicale) to level of waist (level of iliac crests).

N: 2950  
 $\bar{X}$ : 42.2 cm; 17.0 in  
SD: 2.8 cm; 1.1 in  
V%: 6.5

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Waist Back Length*  
NAVY RECRUITS: *Waist Back Length*  
USMC: *Waist Back Length*  
VIETNAM: *Back Waist Length*

**Not Equivalent:**

AUSTRALIA: *Natural Waist Length*—from the nape of the neck to . . . waist in line with the greatest suppression.  
JAPAN: *Waist Back*—to . . . waist †level of the greatest lateral indentation  
KOREA: *Waist Back*—to . . . waist †level of the greatest lateral indentation  
NATO: *Waist Back-Omphalion*—to the omphalion waist back landmark †the horizontal plane through omphalion  
USAF '50: *Waist Back*—to . . . waist †level of the greatest lateral indentation

*Back Waist Length—THAI (Continued)*

WAC: *Back Waist Length*—to posterior waist point †minimal circumference between the iliac crests and the 12th rib

WAF RECRUITS: *Waist Back*—to waist [midway between omphalion and greatest lateral indentation]

WOMEN: *Posterior Waist Length*—[to] average waist level †lies at the lower edge of the lowest rib . . . in the midaxillary line

Indeterminable:

ARMY AVIATORS: *Back Waist Length*—[waist level not defined]

## BACK WAIST LENGTH

**Reference: VIETNAM**

Measured as distance along surface of back from base of neck (cervicale) to level of waist (level of iliac crests).

N: 2124

$\bar{X}$ : 46.4 cm; 18.3 in

SD: 2.6 cm; 1.0 in

V%: 5.6

**Similar Dimensions:**

Equivalent:

ARMY '66: *Waist Back Length*

NAVY RECRUITS: *Waist Back Length*

THAI: *Back Waist Length*

USMC: *Waist Back Length*

Not Equivalent:

AUSTRALIA: *Natural Waist Length*—from the nape of the neck to . . . waist in line with the greatest suppression

JAPAN: *Waist Back*—to . . . waist †level of the greatest lateral indentation

KOREA: *Waist Back*—to . . . waist †level of the greatest lateral indentation

NATO: *Waist Back-Omphalion*—to the omphalion waist back landmark †the horizontal plane through omphalion

USAF '50: *Waist Back*—to waist †level of the greatest lateral indentation

WAC: *Back Waist Length*—to posterior waist point †minimal circumference between the iliac crests and the 12th rib

WAF RECRUITS: *Waist Back*—to waist [midway between omphalion and greatest lateral indentation]

*Back Waist Length—VIETNAM (Continued)*

WOMEN: *Posterior Waist Length*—[to] average waist level †lies at the lower edge of the lowest rib . . . in the midaxillary line

Indeterminable:

ARMY AVIATORS: *Back Waist Length*—[waist level not defined]

**BACK WAIST LENGTH**

**Reference: WAC**

†Subject stood erect without stretching, eyes on an imaginary horizon . . . but with feet slightly apart, . . . with back to measurer†. Measurement taken from cervicale †the most dorsally protruding point on the spine of the 7th cervical vertebra† to posterior waist point †the tape is placed horizontally around the body at the minimal circumference between the iliac crests and the 12th rib. The points are marked where the tape crosses the mid-sagittal plane . . . posteriorly†.

N: 8527  
X: 37.86 cm; 14.91 in  
SD: 2.31 cm; 0.91 in  
V%: [6.1]

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

ARMY '66: *Waist Back Length*—[level of iliac crests]

AUSTRALIA: *Natural Waist Length*—from the nape of the neck to . . . waist in line with the greatest suppression.

JAPAN: *Waist Back*—to . . . waist †level of the greatest lateral indentation

KOREA: *Waist Back*—to . . . waist †level of the greatest lateral indentation

NATO: *Waist Back-Omphalion*—to the omphalion waist back landmark †the horizontal plane through omphalion

NAVY RECRUITS: *Waist Back Length*—[level of iliac crests]

THAI: *Back Waist Length*—to level of waist [level of iliac crests]

USAF '50: *Waist Back*—to waist †level of the greatest lateral indentation

USMC: *Waist Back Length*—[level of iliac crests]

VIETNAM: *Back Waist Length*—to level of waist (level of iliac crests)

*Back Waist Length—WAC (Continued)*

WAF RECRUITS: *Waist Back*—to waist [midway between omphalion and greatest lateral indentation]

WOMEN: *Posterior Waist Length*—[to] average waist level †lies at the lower edge of the lowest rib . . . in the midaxillary line†, center back

Indeterminable:

ARMY AVIATORS: *Back Waist Length*—[waist level not defined]

**BALL CIRCUMFERENCE**

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon†. Measurement taken with the tape passing around the metatarsal-phalangeal joints. The subject was asked to raise the anterior part of her foot so that the ball of the foot was off the floor. The tape was adjusted and the subject asked to place all her weight on it. Measurement was then read.

N: 1949  
 $\bar{X}$ : 22.20 cm; 8.74 in  
SD: 1.17 cm; 0.46 in  
V%: [5.3]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

ARMY '66: *Ball of Foot Circumference*—weight evenly distributed  
ARMY QM: *Ball Foot Circumference*—weight equally distributed  
FOOT: *Ball Girth*—just posterior to the maximal prominences  
FRANCE '65: *Périmètre antérieur du pied*—[supported equally by both feet]  
KOREA: *Ball of Foot Circumference*—weight equally distributed  
NATO: *Ball of Foot Circumference*—weight equally distributed  
NAVY RECRUITS: *Ball of Foot Circumference*—weight evenly distributed  
THAI: *Ball Foot Circumference*—weight equally distributed  
USAF '50: *Ball of Foot Circumference*—weight equally distributed  
USMC: *Ball of Foot Circumference*—weight evenly distributed  
VIETNAM: *Ball Foot Circumference*—weight equally distributed  
WAF RECRUITS: *Ball of Foot Circumference*—weight equally on both feet

*Ball Circumference—WAC (Continued)*

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]

MORANT: *Ball Girth*—[distribution of weight not specified]

**BALL FOOT CIRCUMFERENCE**

Reference: ARMY QM

The subject is asked to raise his foot until the tape is placed in position. Subject then stands erect with eyes facing ahead, feet together and weight equally distributed. The minimum circumference in a plane passing through the most prominent points over the distal ends of the first and fifth metatarsals with firm contact.

N: 24468

$\bar{X}$ : 24.63 cm; 9.70 in

SD: 1.28 cm; 0.50 in

V%: [5.2]

Similar Dimensions:

Equivalent:

ARMY '66: *Ball of Foot Circumference*

FRANCE '65: *Périmètre antérieur du pied*

KOREA: *Ball of Foot Circumference*

NATO: *Ball of Foot Circumference*

NAVY RECRUITS: *Ball of Foot Circumference*

THAI: *Ball Foot Circumference*

USAF '50: *Ball of Foot Circumference*

USMC: *Ball of Foot Circumference*

VIETNAM: *Ball Foot Circumference*

WAF RECRUITS: *Ball of Foot Circumference*

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences

WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]

MORANT: *Ball Girth*—[distribution of weight not specified]

## BALL FOOT CIRCUMFERENCE

Reference: THAI

†Weight equally distributed on both feet† Measured as maximum circumference of foot at widest point (distal ends of metatarsals).

N: 2950  
 $\bar{X}$ : 24.8 cm; 9.79 in  
SD: 1.4 cm; 0.55 in  
V%: 5.6

Similar Dimensions:  
Equivalent:

ARMY '66: *Ball of Foot Circumference*  
ARMY QM: *Ball Foot Circumference*  
FRANCE '65: *Périmètre antérieur du pied*  
KOREA: *Ball of Foot Circumference*  
NATO: *Ball of Foot Circumference*  
NAVY RECRUITS: *Ball of Foot Circumference*  
USAF '50: *Ball of Foot Circumference*  
USMC: *Ball of Foot Circumference*  
VIETNAM: *Ball Foot Circumference*  
WAF RECRUITS: *Ball of Foot Circumference*

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences  
WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]  
MORANT: *Ball Girth*—[distribution of weight not specified]

## BALL FOOT CIRCUMFERENCE

Reference: VIETNAM

†Weight equally distributed on both feet† Measured as maximum circumference of foot at widest point (distal ends of metatarsals).

N: 2114  
 $\bar{X}$ : 24.2 cm; 9.5 in  
SD: 1.6 cm; 0.6 in  
V%: 6.6

*Ball Foot Circumference—VIETNAM (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Ball of Foot Circumference*  
ARMY QM: *Ball Foot Circumference*  
FRANCE '65: *Périmètre antérieur du pied*  
KOREA: *Ball of Foot Circumference*  
NATO: *Ball of Foot Circumference*  
NAVY RECRUITS: *Ball of Foot Circumference*  
THAI: *Ball Foot Circumference*  
USAF '50: *Ball of Foot Circumference*  
USMC: *Ball of Foot Circumference*  
WAF RECRUITS: *Ball of Foot Circumference*

**Not Equivalent:**

FOOT: *Ball Girth*—just posterior to the maximal prominences  
WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

**Indeterminable:**

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]  
MORANT: *Ball Girth*—[distribution of weight not specified]

**BALL GIRTH**

**Reference: FOOT**

Girth just posterior to the maximal prominences of the 1st and 5th metatarso-phalangeal joints.

	<i>White</i>	<i>Negro</i>
N:	5575	1200
$\bar{X}$ :	25.18 cm; 9.91 in	25.35 cm; 9.98 in
Est SD:	[1.15 cm; 0.46 in]	[1.21 cm; 0.48 in]
Est V%:	[4.56]	[4.77]

**Similar Dimensions:**

**Equivalent:**

None

**Ball Girth—FOOT (Continued)**

**Not Equivalent:**

- ARMY '66: *Ball of Foot Circumference*—over the inner and outer balls of the foot  
ARMY AVIATORS: *Ball of Foot Circumference*—over the inner and outer balls of the foot  
ARMY QM: *Ball Foot Circumference*—most prominent points over the distal ends of the first and fifth metatarsals  
FRANCE '65: *Périmètre antérieur du pied*—[at the level of the heads of the metatarsals ]  
KOREA: *Ball of Foot Circumference*—around the distal ends of the protuberances of the metatarsal bones  
MORANT: *Ball Girth*—through . . . points marked on the prominences of the 1st and 5th metatarso phalangeal joints  
NATO: *Ball of Foot Circumference*—distal ends of the protuberances of the metatarsal bones  
NAVY RECRUITS: *Ball of Foot Circumference*—over the inner and outer balls of the foot  
THAI: *Ball Foot Circumference*—(distal ends of metatarsals)  
USAF '50: *Ball of Foot Circumference*—around the ends of the protuberances of the metatarsal bones  
USMC: *Ball of Foot Circumference*—over the inner and outer balls of the foot  
VIETNAM: *Ball Foot Circumference*—(distal ends of metatarsals)  
WAC: *Ball Circumference*—around the metatarsal-phalangeal joints  
WAF RECRUITS: *Ball of Foot Circumference*—around the distal ends of the protuberances of the metatarsal bones

**Indeterminable:**

None

**BALL GIRTH**

**Reference: MORANT**

This is the minimum girth, taken with the linen tape, passing through the points marked on the prominences of the 1st and 5th metatarso-phalangeal joints. When positioning the tape the subject is required to raise the front of his foot.

N: 200  
 $\bar{X}$ : 24.83 cm; 9.77 in  
SD: 1.05 cm; 0.41 in  
V%: [4.4]

*Ball Girth—MORANT (Continued)*

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences

WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

Indeterminable:

The reference dimension does not specify distribution of weight on feet.

ARMY '66: *Ball of Foot Circumference*

ARMY AVIATORS: *Ball of Foot Circumference*

ARMY QM: *Ball Foot Circumference*

FRANCE '65: *Périmètre antérieur du pied*

KOREA: *Ball of Foot Circumference*

NATO: *Ball of Foot Circumference*

NAVY RECRUITS: *Ball of Foot Circumference*

THAI: *Ball of Foot Circumference*

USAF '50: *Ball of Foot Circumference*

USMC: *Ball of Foot Circumference*

VIETNAM: *Ball Foot Circumference*

WAF RECRUITS: *Ball of Foot Circumference*

**BALL HEIGHT**

**Reference: FOOT**

Height from the ground to the dorsal foot surface in the region of the 1st metatarso-phalangeal joint.

<i>White</i>	<i>Negro</i>
N: 5574	1199
$\bar{X}$ : 3.88 cm; 1.53 in	3.81 cm; 1.50 in
Est SD: [0.23 cm; 0.09 in]	[0.21 cm; 0.08 in]
Est V%: [5.93]	[5.52]

**Similar Dimensions:**

Equivalent:

MORANT: *Ball Height*

***Ball Height—FOOT (Continued)***

Not Equivalent:

None

Indeterminable:

None

**See Also:**

*Outside Ball Height*

**BALL HEIGHT**

**Reference:** MORANT

This is the height above the surface supporting the foot of the highest point on the line marking the cross section of the ball, measured with a height gauge.

N: 200

$\bar{X}$ : 3.84 cm; 1.51 in

SD: 0.24 cm; 0.10 in

V%: [6.25]

**Similar Dimensions:**

Equivalent:

FOOT: *Ball Height*

Not Equivalent:

None

Indeterminable:

None

**See Also:**

*Outside Ball Height*

**BALL LENGTH**

**Reference:** FOOT

Length from heel to soft tissue prominence medial to 1st metatarso-phalangeal joint.  
[From photograph]

*Ball Length—FOOT (Continued)*

<i>White</i>	<i>Negro</i>
N: 5575	1199
$\bar{X}$ : 19.26 cm; 7.58 in	20.14 cm; 7.93 in
Est SD: [0.91 cm; 0.36 in]	[1.00 cm; 0.40 in]
Est V%: [4.72]	[4.97]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Instep Length*  
ARMY QM: *Instep Length*  
KOREA: *Instep Length*  
MORANT: *Instep Length*  
NATO: *Instep Length*  
NAVY RECRUITS: *Instep Length*  
THAI: *Instep Length*  
USAF '50: *Instep Length*  
USMC: *Instep Length*  
VIETNAM: *Instep Length*  
WAF RECRUITS: *Instep Length*

**Not Equivalent:**

WAC: *Instep Length*—Subject . . . stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**See Also:**

*Foot Length*  
*Outside Ball Length*

**BALL LENGTH**

**Reference: MORANT**

With the foot in position on the board ~~foot~~ on the measuring board so that the heel is in contact with the base block and the medial side of the foot is in contact with the side block at the heel and at the ball . . . the side block is taken away by rotating it on its hinges and replaced by the loose block. The working face of this is aligned

*Ball Length—MORANT (Continued)*

with the mark made on the medial surface of the ball and the length required is read on the scale of the board.

N: 200  
 $\bar{X}$ : 19.07 cm; 7.51 in  
SD: 0.83 cm; 0.33 in  
V%: [4.35]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Instep Length*  
ARMY QM: *Instep Length*  
FOOT: *Ball Length*  
KOREA: *Instep Length*  
NATO: *Instep Length*  
NAVY RECRUITS: *Instep Length*  
THAI: *Instep Length*  
USAF '50: *Instep Length*  
USMC: *Instep Length*  
VIETNAM: *Instep Length*  
WAF RECRUITS: *Instep Length*

**Not Equivalent:**

WAC: *Instep Length*—Subject . . . stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**See Also:**

*Foot Length*  
*Outside Ball Length*

**BALL OF FOOT BREADTH**

**Reference: ARMY '66**

Subject stands erect, with his right foot in a foot measuring box, and with his weight evenly distributed on both feet. The breadth of the right foot is measured between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints). A foot measuring box is used.

N: 6682  
 $\bar{X}$ : 9.82 cm; 3.87 in

*Ball of Foot Breadth—ARMY '66 (Continued)*

SD: 0.55 cm; 0.22 in  
V%: 5.56

**Similar Dimensions:**

**Equivalent:**

NAVY RECRUITS: *Ball of Foot Breadth*  
USMC: *Ball of Foot Breadth*

**Not Equivalent:**

AAF: *Foot Breadth*—maximum breadth  
ARMY ARMORED: *Foot Breadth*—maximum breadth  
ARMY AVIATORS: *Foot Breadth*—maximum width  
HRDLICKA: *Foot Breadth*—maximum breadth  
KOREA: *Foot Breadth*—widest part of the foot  
MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]  
NATO: *Foot Breadth*—widest part of the foot  
THAI: *Foot Breadth*—maximum breadth of right foot  
USAF '50: *Foot Breadth*—widest part of the foot  
USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

ARMY QM: *Foot Breadth*  
FOOT: *Foot Breadth (Diagonal)*  
FOOT: *Foot Breadth (Horizontal)*  
FRANCE '65: *Largeur du pied*  
MORANT: *Diagonal Foot Breadth*

The following dimension descriptions do not specify the distribution of body weight on the feet.

AUSTRALIA: *Foot Width*  
FAA: *Foot Breadth*  
MONTAGU: *Foot Breadth*

**See Also:**

*Breadth of Instep*

## BALL OF FOOT BREADTH

### Reference: NAVY RECRUITS

Subject stands erect, with his right foot in a foot measuring box, and with his weight evenly distributed on both feet. The breadth of the right foot is measured between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints). A foot measuring box is used.

N: 4095  
 $\bar{X}$ : 9.75 cm; 3.84 in  
SD: 0.53 cm; 0.21 in  
V%: 5.40

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ball of Foot Breadth*  
USMC: *Ball of Foot Breadth*

#### Not Equivalent:

AAF: *Foot Breadth*—maximum breadth  
ARMY ARMORED: *Foot Breadth*—maximum breadth  
ARMY AVIATORS: *Foot Breadth*—maximum width  
HRDLIČKA: *Foot Breadth*—maximum breadth  
KOREA: *Foot Breadth*—widest part of the foot  
MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]  
NATO: *Foot Breadth*—widest part of the foot  
THAI: *Foot Breadth*—maximum breadth of right foot  
USAF '50: *Foot Breadth*—widest part of the foot  
USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

#### Indeterminable:

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

ARMY QM: *Foot Breadth*  
FOOT: *Foot Breadth (Diagonal)*  
FOOT: *Foot Breadth (Horizontal)*  
FRANCE '65: *Largeur du pied*

*Ball of Foot Breadth—NAVY RECRUITS (Continued)*

MORANT: *Diagonal Foot Breadth*

The following dimension descriptions do not specify the distribution of body weight on the feet.

AUSTRALIA: *Foot Width*

FAA: *Foot Breadth*

MONTAGU: *Foot Breadth*

See Also:

*Breadth of Instep*

**BALL OF FOOT BREADTH**

Reference: USMC

Subject stands erect, with his right foot in a foot measuring box, and with his weight evenly distributed on both feet. The breadth of the right foot is measured between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints). A foot measuring box is used.

N: 2008  
 $\bar{X}$ : 9.80 cm; 3.86 in  
SD: 0.53 cm; 0.21 in  
V%: 5.32

Similar Dimensions:

Equivalent:

ARMY '66: *Ball of Foot Breadth*

NAVY RECRUITS: *Ball of Foot Breadth*

Not Equivalent:

AAF: *Foot Breadth*—maximum breadth

ARMY ARMORED: *Foot Breadth*—maximum breadth

ARMY AVIATORS: *Foot Breadth*—maximum width

HRDLICKA: *Foot Breadth*—maximum breadth

KOREA: *Foot Breadth*—widest part of the foot

MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]

NATO: *Foot Breadth*—widest part of the foot

*Ball of Foot Breadth—USMC (Continued)*

THAI: *Foot Breadth*—maximum breadth of right foot  
USAF '50: *Foot Breadth*—widest part of the foot  
USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

ARMY QM: *Foot Breadth*  
FOOT: *Foot Breadth (Diagonal)*  
FOOT: *Foot Breadth (Horizontal)*  
FRANCE '65: *Largeur du pied*  
MORANT: *Diagonal Foot Breadth*

The following dimension descriptions do not specify the distribution of body weight on the feet.

AUSTRALIA: *Foot Width*  
FAA: *Foot Breadth*  
MONTAGU: *Foot Breadth*

**See Also:**

*Breadth of Instep*

**BALL OF FOOT CIRCUMFERENCE**

**Reference: ARMY '66**

Subject stands erect, with his feet slightly apart and with his weight evenly distributed on both feet. The circumference of the right foot is measured. A steel tape is used, with the tape passing over the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

N: 6682  
 $\bar{X}$ : 25.01 cm; 9.85 in  
SD: 1.47 cm; 0.58 in  
V%: 5.92

*Ball of Foot Circumference—KOREA (Continued)*

USAF '50: *Ball of Foot Circumference*  
USMC: *Ball of Foot Circumference*  
VIETNAM: *Ball Foot Circumference*  
WAF RECRUITS: *Ball of Foot Circumference*

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences  
WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]  
MORANT: *Ball Girth*—[distribution of weight not specified]

**BALL OF FOOT CIRCUMFERENCE**

Reference: NATO

Subject stands with the tape under the ball of his right foot, his weight equally distributed on both feet. Measure the maximum circumference around the distal ends of the protuberances of the metatarsal bones.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1385
$\bar{X}$ : 25.27 cm; 9.95 in	24.97 cm; 9.83 in	25.15 cm; 9.90 in
SD: 1.30 cm; 0.51 in	1.10 cm; 0.43 in	1.18 cm; 0.46 in
V%: 5.14	4.41	4.69

Similar Dimensions:

Equivalent:

ARMY '66: *Ball of Foot Circumference*  
ARMY QM: *Ball Foot Circumference*  
FRANCE '65: *Périmètre antérieur du pied*  
KOREA: *Ball of Foot Circumference*  
NAVY RECRUITS: *Ball of Foot Circumference*  
THAI: *Ball Foot Circumference*  
USAF '50: *Ball of Foot Circumference*  
USMC: *Ball of Foot Circumference*  
VIETNAM: *Ball Foot Circumference*  
WAF RECRUITS: *Ball of Foot Circumference*

*Ball of Foot Circumference—NATO (Continued)*

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences

WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]

MORANT: *Ball Girth*—[distribution of weight not specified]

**BALL OF FOOT CIRCUMFERENCE**

**Reference: NAVY RECRUITS**

Subject stands erect, with his feet slightly apart and with his weight evenly distributed on both feet. The circumference of the right foot is measured. A steel tape is used, with the tape passing over the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

N: 4094

$\bar{X}$ : 24.63 cm; 9.70 in

SD: 1.70 cm; 0.67 in

V%: 6.9%

**Similar Dimensions:**

Equivalent:

ARMY '66: *Ball of Foot Circumference*

ARMY QM: *Ball Foot Circumference*

FRANCE '65: *Périmètre antérieur du pied*

KOREA: *Ball of Foot Circumference*

NATO: *Ball of Foot Circumference*

THAI: *Ball Foot Circumference*

USAF '50: *Ball of Foot Circumference*

USMC: *Ball of Foot Circumference*

VIETNAM: *Ball Foot Circumference*

WAF RECRUITS: *Ball of Foot Circumference*

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences

WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

*Ball of Foot Circumference—NAVY RECRUITS (Continued)*

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]

MORANT: *Ball Girth*—[distribution of weight not specified]

**BALL OF FOOT CIRCUMFERENCE**

Reference: USAF '50

Subject stands with the tape under the ball of his right foot and his weight equally distributed on both feet. Measure the maximum circumference around the distal ends of the protuberances of the metatarsal bones.

N: 4050

X: 24.52 cm; 9.65 in

SD: 1.22 cm; 0.48 in

V%: 4.98

Similar Dimensions:

Equivalent:

ARMY '66: *Ball of Foot Circumference*

ARMY QM: *Ball Foot Circumference*

FRANCE '65: *Périmètre antérieur du pied*

KOREA: *Ball of Foot Circumference*

NATO: *Ball of Foot Circumference*

NAVY RECRUITS: *Ball of Foot Circumference*

THAI: *Ball Foot Circumference*

USMC: *Ball of Foot Circumference*

VIETNAM: *Ball Foot Circumference*

WAF RECRUITS: *Ball of Foot Circumference*

Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences

WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]

MORANT: *Ball Girth*—[distribution of weight not specified]

## BALL OF FOOT CIRCUMFERENCE

Reference: USMC

Subject stands erect, with his feet slightly apart and with his weight evenly distributed on both feet. The circumference of the right foot is measured. A steel tape is used, with the tape passing over the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

N: 2008  
 $\bar{X}$ : 25.12 cm; 9.89 in  
SD: 1.29 cm; 0.51 in  
V%: 5.20

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Ball of Foot Circumference*  
ARMY QM: *Ball Foot Circumference*  
FRANCE '65: *Périmètre antérieur du pied*  
KOREA: *Ball of Foot Circumference*  
NATO: *Ball of Foot Circumference*  
NAVY RECRUITS: *Ball of Foot Circumference*  
THAI: *Ball Foot Circumference*  
USAF '50: *Ball of Foot Circumference*  
VIETNAM: *Ball Foot Circumference*  
WAF RECRUITS: *Ball of Foot Circumference*

#### Not Equivalent:

FOOT: *Ball Girth*—just posterior to the maximal prominences  
WAC: *Ball Circumference*—subject asked to place all her weight on it [ball]

#### Indeterminable:

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]  
MORANT: *Ball Girth*—[distribution of weight not specified]

## BALL OF FOOT CIRCUMFERENCE

Reference: WAF RECRUITS

Subject stands. Ask the subject to lift her right foot and place the tape under the ball of the foot. The subject then replaces her weight equally on both feet and the cir-

*Ball of Foot Circumference—WAF RECRUITS (Continued)*

cumference is measured around the distal ends of the protuberances of the metatarsal bones.

N: 848  
 $\bar{X}$ : 23.30 cm; 9.17 in.  
SD: 1.23 cm; 0.48 in  
V%: 5.30

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Ball of Foot Circumference*  
ARMY QM: *Ball Foot Circumference*  
FRANCE '65: *Périmètre antérieur du pied*  
KOREA: *Ball of Foot Circumference*  
NATO: *Ball of Foot Circumference*  
NAVY RECRUITS: *Ball of Foot Circumference*  
THAI: *Ball Foot Circumference*  
USAF '50: *Ball of Foot Circumference*  
USMC: *Ball of Foot Circumference*  
VIETNAM: *Ball Foot Circumference*

**Not Equivalent:**

FOOT: *Ball Girth*—just posterior to the maximal prominences  
WAC: *Ball Circumference*—subject asked to place all her weight on it [bal']

**Indeterminable:**

ARMY AVIATORS: *Ball of Foot Circumference*—[distribution of weight not specified]  
MORANT: *Ball Girth*—[distribution of weight not specified]

**BENT KNEE GIRTH**

**Reference: WOMEN**

Tape. . . . The subject sat on a table with the feet placed in a chair high enough to form a right angle at the knee. . . . The tape was placed around the knee without constriction, the zero point of the tape at the center front and the upper border at the level of the midpoint of the patella.

N: 10042  
 $\bar{X}$ : 36.30 cm; 14.29 in

***Bent Knee Girth—WOMEN (Continued)***

SD: 3.51 cm; 1.33 in  
V%: 9.7

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Knee Circumference, Sitting*  
KOREA: *Knee Circumference, Sitting*  
NATO: *Knee Circumference, Sitting*  
USAF '50: *Knee Circumference, Sitting*  
WAF RECRUITS: *Knee Circumference (Flexed)*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Knee Circumference*

**BIACROMIAL**

**Reference: AAF**

Distance between acromial points external borders of end of scapular (shoulder-blade) spine. Be sure subject is relaxed, but not collapsed. Firm contact.

<i>Cadets</i>	<i>Gunners</i>
N: 2956	583
Median: 39.79 cm; 15.7 in	38.93 cm; 15.3 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

ARMY ARMORED: *Biacromial*  
COMAS: *Bi-Acromial Breadth*  
FRANCE '65: *Diamètre bi-acromial*

*Biacromial—AAF (Continued)*

MARTIN: *Breite zwischen den Akromien*  
MONTAGU: *Bi-Acromial Breadth*  
THOUSAND AVIATORS: *Biacromial Diameter*  
WASP: *Biacromial*

**Not Equivalent:**

GENEVA: *Bi-Acromial Diameter*—between the 2 acromial points †superior and external border of the acromion process  
JAPAN: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
KOREA: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
NATO: *Biacromial Breadth*—between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine  
USAF '50: *Biacromial Diameter*—(acromion to acromion) †the highest point of the lateral edge of the shoulder bone

**Indeterminable:**

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

**See Also:**

*Bideltoid Breadth*

## BIACROMIAL

**Reference: ARMY ARMORED**

Distance between acromial points (external borders of end of scapular (shoulder-blade) spine). Be sure subject is relaxed, but not collapsed. Firm contact.

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Biacromial*  
COMAS: *Bi-Acromial Breadth*  
FRANCE '65: *Diamètre bi-acromial*  
MARTIN: *Breite Zwischen den Akromien*  
MONTAGU: *Bi-Acromial Breadth*  
THOUSAND AVIATORS: *Biacromial Diameter*  
WASP: *Biacromial*

*Biacromial*--ARMY ARMORED (Continued)

**Not Equivalent:**

- GENEVA: *Bi-Acromial Diameter*--between the 2 acromial points †superior and external border of the acromion process  
JAPAN: *Biacromial Diameter*--(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
KOREA: *Biacromial Diameter*--(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
NATO: *Biacromial Breadth*--between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine  
USAF '50: *Biacromial Diameter*--(acromion to acromion) †the highest point of the lateral edge of the shoulder bone

**Indeterminable:**

BULGARIA: *Biacromial Breadth* -- [Acromion not defined.]

**See Also:**

*Bideltoïd Breadth*

## BIACROMIAL

**Reference: WASP**

Distance between acromial points (external borders of end of scapular (shoulder-blade) spine). Be sure subject is relaxed, but not collapsed. Firm contact.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 34.96 cm; 13.76 in	33.99 cm; 13.38 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

AAF: *Biacromial*  
ARMY ARMORED: *Biacromial*  
COMAS: *Bi-Acromial Breadth*  
FRANCE '65: *Diamètre bi-acromial*  
MARTIN: *Breite zwischen den Akromien*

*Biacromial—WASP (Continued)*

MONTAGU: *Bi-Acromial Breadth*

THOUSAND AVIATORS: *Biacromial Diameter*

**Not Equivalent:**

GENEVA: *Bi-Acromial Diameter*—between the 2 acromial points †*superior and external border of the acromion process*

JAPAN: *Biacromial Diameter*—(acromion to acromion) †*highest point on the lateral edge of the shoulder bone*

KOREA: *Biacromial Diameter*—(acromion to acromion) †*highest point on the lateral edge of the shoulder bone*

NATO: *Biacromial Breadth*—between the right and left acromion landmarks †*the highest point on the lateral edge of the acromial spine*

USAF '50: *Biacromial Diameter*—(acromion to acromion) †*the highest point of the lateral edge of the shoulder bone*

**Indeterminable:**

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

**See Also:**

*Bideltoia Breadth*

## BIACROMIAL ARC

**Reference: WAF RECRUITS**

Subject sits erect with her upper arms hanging at her sides and her lower arms extended horizontally. Measure between the marked acromion points †*the outer end of the transverse spine of the shoulder blade*† with the tape passing horizontally across the back.

N: 843

$\bar{X}$ : 47.30 cm; 18.62 in

SD: 3.24 cm; 1.28 in

V%: 6.85

**Similar Dimensions:**

None

## BIACROMIAL BREADTH

Reference: BULGARIA

The rectilinear distance between the two acromions. Measured with an anthropometer or pelvimeter.

Men	Women
N: 1662	1579
$\bar{X}$ : [38.39 cm; 15.11 in]	[35.11 cm; 13.82 in]
Est SD: [ 2.63 cm; 1.04 in]	[ 2.20 cm; 0.87 in]
Est V%: [6.85]	[6.27]

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

The reference dimension does not define acromion.

AAF: *Biacromial*

ARMY ARMORED: *Biacromial*

COMAS: *Bi-Acromial Breadth*

FRANCE '65: *Diamètre bi-acromial*

GENEVA: *Bi-Acromial Diameter*

JAPAN: *Biacromial Diameter*

KOREA: *Biacromial Diameter*

MARTIN: *Breite zwischen den Akromien*

MONTAGU: *Bi-Acromial Breadth*

NATO: *Biacromial Breadth*

THOUSAND AVIATORS: *Biacromial Diameter*

USAF '50: *Biacromial Diameter*

WASP: *Biacromial*

See Also:

*Bideltoid Breadth*

## BI-ACROMIAL BREADTH

### Reference: COMAS

(With subject in standing position). Acromiale to acromiale †the most distal point, palpable from above, on the acromion process of the scapula†. (sliding caliper).

No Data Available

### Similar Dimensions:

#### Equivalent:

AAF: *Biacromial*  
ARMY ARMORED: *Biacromial*  
FRANCE '65: *Diamètre bi-acromial*  
MARTIN: *Breite zwischen den Akromien*  
MONTAGU: *Bi-Acromial Breadth*  
THOUSAND AVIATORS: *Biacromial Diameter*  
WASP: *Biacromial*

#### Not Equivalent:

GENEVA: *Bi-Acromial Diameter*—between the 2 acromial points †superior and external border of the acromion process  
JAPAN: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
KOREA: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
NATO: *Biacromial Breadth*—between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine  
USAF '50: *Biacromial Diameter*—(acromion to acromion) †the highest point of the lateral edge of the shoulder bone

#### Indeterminable:

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

### See Also:

*Bideloid Breadth*

## BI-ACROMIAL BREADTH

### Reference: MONTAGU

(Anthropometer used as sliding compass). The distance between the most lateral

*Bi-acromial Breadth—MCNTAGU (Continued)*

margins of the acromion process of the scapula, the subject standing as he does normally.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Biacromial*  
ARMY ARMORED: *Biacromial*  
COMAS: *Bi-Acromial Breadth*  
FRANCE '65: *Diamètre bi-acromial*  
MARTIN: *Breite zwischen den Akromien*  
THOUSAND AVIATORS: *Biacromial Diameter*  
WASP: *Biacromial*

**Not Equivalent:**

GENEVA: *Bi-Acromial Diameter*—between the 2 acromial points †superior and external border of the acromion process  
JAPAN: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
KOREA: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
NATO: *Biacromial Breadth*—between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine  
USAF '50: *Biacromial Diameter*—(acromion to acromion) †the highest point of the lateral edge of the shoulder bone

**Indeterminable:**

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

**See Also:**

*Bideloid Breadth*

**BIACROMIAL BREADTH**

**Reference: NATO**

Subject sits erect, his upper arms hanging at his sides and his lower arms extended forward horizontally. Using the anthropometer, measure the distance between the

*Biacromial Breadth—NATO (Continued)*

right and left acromion landmarks. †The highest point . . . that can be palpated on the lateral edge of the acromial spine of the scapula†.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 39.60 cm; 15.59 in	38.87 cm; 15.30 in	39.84 cm; 15.69 in
SD: 1.72 cm; 0.68 in	1.98 cm; 0.78 in	1.83 cm; 0.72 in
V%: 4.34	5.08	4.58

**Similar Dimensions:**

**Equivalent:**

GENEVA: *Bi-Acromial Diameter*  
 JAPAN: *Biacromial Diameter*  
 KOREA: *Biacromial Diameter*  
 USAF '50: *Biacromial Diameter*

**Not Equivalent:**

AAF: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
 ARMY ARMORED: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
 COMAS: *Bi-Acromial Breadth*—the most distal point, palpable from above  
 FRANCE '65: *Diamètre bi-acromial*—[between lateral edges of the acromions]  
 MARTIN: *Breite zwischen den Akromien*—[point of the lateral edge of the acromial process of the scapula]  
 MONTAGU: *Bi-Acromial Breadth*—between the most lateral margins of the acromion process of the scapula  
 THOUSAND AVIATORS: *Biacromial Diameter*—from the most lateral aspects of the acromial process.  
 WASP: *Biacromial*—between acromial points (external borders)

**Indeterminable:**

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

**See Also:**

*Bideltoid Breadth*

## BIACROMIAL DIAMETER

### Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface: no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downward, the heels in contact, and the axis of vision horizontal† Maximum distance between the 2 acromial points †superior and external border of the acromion process†.

No Data Available.

### Similar Dimensions:

#### Equivalent:

JAPAN: *Biacromial Diameter*  
KOREA: *Biacromial Diameter*  
NATO: *Biacromial Breadth*  
USAF '50: *Biacromial Diameter*

#### Not Equivalent:

AAF: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
ARMY ARMORED: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
COMAS: *Bi-Acromial Breadth*— the most distal point, palpable from above  
FRANCE '65: *Diametre bi-acromial*—[between lateral edges of the acromions]  
MARTIN: *Breite zwischen den Akromien*—[ point of the lateral edge of the acromial process of the scapula ]  
MONTAGU: *Bi-Acromial Breadth*—between the most lateral margins of the acromion process of the scapula  
THOUSAND AVIATORS: *Biacromial Diameter*—from the most lateral aspects of the acromial process  
WASP: *Biacromial*—between acromial points (external borders)

#### Indeterminable:

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

### See Also:

*Bideltoid Breadth*

## SIACROMIAL DIAMETER

### Reference: JAPAN

Subject sits erect, his upper arms hanging at his sides and his forearms extended horizontally. Using the anthropometer, measure between the points marked at the ends of the shoulders (acromion to acromion). †*The highest point on the lateral edge of the shoulder bone†*

N: 101  
 $\bar{X}$ : 37.46 cm; 14.75 in  
SD: 1.91 cm; 0.75 in  
V%: 5.10

### Similar Dimensions:

#### Equivalent:

GENEVA: *Bi-Acromial Diameter*  
KOREA: *Biacromial Diameter*  
NATO: *Biacromial Breadth*  
USAF '50: *Biacromial Diameter*

#### Not Equivalent:

AAF: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
ARMY ARMORED: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
COMAS: *Bi-Acromial Breadth*—the most distal point, palpable from above  
FRANCE '65: *Diamètre bi-acromial*—[between lateral edges of the acromions]  
MARTIN: *Breite zwischen den Akromien*—[ point of the lateral edge of the acromial process of the scapula ]  
MONTAGU: *Bi-Acromial Breadth*—between the most lateral margins of the acromion process of the scapula  
THOUSAND AVIATORS: *Biacromial Diameter*—from the most lateral aspects of the acromial process.  
WASP: *Biacromial*—between acromial points (external borders)

#### Indeterminable:

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

### See Also:

*Bideltoid Breadth*

## BIACROMIAL DIAMETER

### Reference: KOREA

Subject sits erect, his upper arms hanging at his sides and his forearms extended horizontally. Using the anthropometer, measure between the points marked at the ends of the shoulders (acromion to acromion). †The highest point on the lateral edge of the shoulder bone†

N: 264  
 $\bar{X}$ : 34.63 cm; 13.64 in  
SD: 2.02 cm; 0.80 in  
V%: 5.84

### Similar Dimensions:

GENEVA: *Bi-Acromial Diameter*

JAPAN: *Biacromial Diameter*

NATO: *Biacromial Breadth*

USAF '50: *Biacromial Diameter*

### Not Equivalent:

AAF: *Biacromial*—between acromial points (external borders) . . . subject is relaxed

ARMY ARMORED: *Biacromial*—between acromial points (external borders) . . . subject is relaxed

COMAS: *Bi-Acromial Breadth*—the most distal point, palpable from above

FRANCE '65: *Diamètre bi-acromial*—[between lateral edges of the acromions]

MARTIN: *Breite zwischen den Akromien*—[point of the lateral edge of the acromial process of the scapula]

MONTAGU: *Bi-Acromial Breadth*—between the most lateral margins of the acromion process of the scapula

THOUSAND AVIATORS: *Biacromial Diameter*—from the most lateral aspects of the acromial process.

WASP: *Biacromial*—between acromial points (external borders)

### Indeterminable:

BULGARIA: *Biacromial Breadth* -- [Acromion not defined.]

### See Also:

*Bideltoid Breadth*

## BIACROMIAL DIAMETER

### Reference: THOUSAND AVIATORS

Subject stood with head bent slightly forward and shoulders "slouched." Measurement was made from the most lateral aspects of the acromial process. †Measured with an anthropometer to the nearest millimeter with the firm pressure on bony prominences†

N: 675  
 $\bar{X}$ : 40.64 cm; 16.00 in  
SD: 1.77 cm; 0.70 in  
V%: [4.3]

### Similar Dimensions:

#### Equivalent:

AAF: *Biacromial*  
ARMY ARMORED: *Biacromial*  
COMAS: *Bi-Acromial Breadth*  
FRANCE '65: *Diamètre bi-acromial*  
MARTIN: *Breite zwischen den Akromien*  
MONTAGU: *Bi-Acromial Breadth*  
WASP: *Biacromial*

#### Not Equivalent:

GENEVA: *Bi-Acromial Diameter* — between the 2 acromial points. †superior and external border of the acromion process  
JAPAN: *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone  
KOREA: *Biacromial Diameter*—(Acromion to acromion) †highest point on the lateral edge of the shoulder bone  
NATO: *Biacromial Breadth*—between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine  
USAF '50: *Biacromial Diameter*—(acromion to acromion) †the highest point of the lateral edge of the shoulder bone

#### Indeterminable:

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

### See Also:

*Bideltoia Breadth*

## BIACROMIAL DIAMETER

Reference: USAF '50

Subject sits erect, his upper arms hanging at his sides and his forearms extended horizontally. Using the anthropometer, measure between the points marked at the ends of the shoulders (acromion to acromion) †*The highest point on the lateral edge of the shoulder bone†.*

N: 4063  
 $\bar{X}$ : 40.01 cm; 15.75 in  
SD: 1.88 cm; 0.74 in  
V%: 4.72

### Similar Dimensions:

#### Equivalent:

GENEVA: *Bi-Acromial Diameter*  
JAPAN: *Biacromial Diameter*  
KOREA: *Bi-acromial Diameter*  
NATO: *Biacromial Breadth*

#### Not Equivalent:

AAF: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
ARMY ARMORED: *Biacromial*—between acromial points (external borders) . . . subject is relaxed  
COMAS: *Bi-Acromial Breadth*—the most distal point, palpable from above  
FRANCE '65: *Diamètre bi-acromial*—[between lateral edges of the acromions]  
MARTIN: *Breite zwischen den Akromien*—[ point of the lateral edge of the acromial process of the scapula ]  
MONTAGU: *Bi-Acromial Breadth*—between the most lateral margins of the acromion process of the scapula  
THOUSAND AVIATORS: *Biacromial Diameter*—from the most lateral aspects of the acromial process.  
WASP: *Biacromial*—between acromial points (external borders)

#### Indeterminable:

BULGARIA: *Biacromial Breadth* — [Acromion not defined.]

#### See Also:

*Bideltoïd Breadth*

## BICEPS CIRCUMFERENCE, EXTENDED

Reference: BULGARIA

Measured with a centimeter tape with relaxed arm at the most bulging part of biceps brachii.

Men	Women
N: 1662	1581
$\bar{X}$ : [27.62 cm; 10.87 in]	[26.17 cm; 10.30 in]
Est SD: [ 2.10 cm; 0.83 in]	[ 2.53 cm; 1.00 in]
Est V%: [7.60]	[9.68]

### Similar Dimensions:

#### Equivalent:

FAA: *Upper-Arm Circumference*  
 GENEVA: *Circumference of the Upper Arm [At Rest]*  
 MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung*  
 MONTAGU: *Maximum Circumference of the Right Arm*  
 WASP: *Upper Arm Circumference*

#### Not Equivalent:

ARMY '66: *Biceps Circumference, Relaxed*—midway between the shoulder and the elbow.  
 ARMY QM: *Lower Upper Arm Circumference*—one half inch above the maximum prominence of the entepicondylar process  
 ARMY QM: *Middle Upper Arm Circumference*—midway between the axilla and the . . . cubital fossa  
 FRANCE' 65: *Périmètre maximum du membre supérieur*—[at the inferior insertion of the deltoid muscle.]  
 NAVY RECRUITS: *Biceps Circumference, Relaxed*—midway between the shoulder and the elbow  
 NATO: *Biceps Circumference, Extended*—at the . . . landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps  
 THAI: *Upper Arm Circumference*—midway between shoulder and elbow  
 THOUSAND AVIATORS: *Biceps Resting [Circumference]*—midpoint . . . between the right acromial process and olecranon  
 USMC: *Biceps Circumference, Relaxed*—midway between the shoulder and the elbow  
 VIETNAM: *Upper Arm Circumference*—midway between shoulder and elbow  
 WAC: *Upper Arm Circumference*—midway between the shoulder and elbow

### See Also:

*Biceps Circumference, Flexed*

## BICEPS CIRCUMFERENCE, EXTENDED

Reference: NATO

Subject stands, his right arm extended with the hand about a foot from the body. Holding the tape perpendicular to the long axis of the upper arm, measure the circumference of the arm at the biceps circumference landmark †mark with a line . . . the level of maximum protrusion of the biceps muscle when the subject bends his elbow to a right angle, holds his upper arm horizontal, and tenses the biceps to make a maximum "fist"†.

Turkey	Greece	Italy
N: 915	1084	1358
$\bar{X}$ : 27.20 cm; 10.71 in	28.37 cm; 11.17 in	29.23 cm; 11.51 in
SD: 2.36 cm. 0.93 in	2.08 cm; 0.82 in	2.29 cm; 0.90 in
V%: 8.68	7.33	7.82

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

- ARMY '66: *Biceps Circumference, Relaxed*—at the level of the biceps muscle, midway between the shoulder and the elbow
- ARMY QM: *Lower Upper Arm Circumference*—one half inch above the maximum prominence of the entepicondylar process
- ARMY QM: *Middle Upper Arm Circumference*—midway between the axilla and the . . . cubital fossa
- BULGARIA: *Biceps Circumference Extended*—at the most bulging part of the biceps
- FAA: *Upper-Arm Circumference*—at the greatest diameter of the biceps
- FRANCE '65: *Périmètre maximum du membre supérieur*—[at the inferior insertion of the deltoid muscle]
- GENEVA: *Circumference of the Upper Arm [At Rest]*—maximum circumference . . . below the insertion of the deltoid muscle
- MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung*—[at the maximum protrusion of the biceps muscle]
- MONTAGU: *Maximum Circumference of the Right Arm*—[maximum circumference]
- NAVY RECRUITS: *Biceps Circumference, Relaxed*—at the level of the biceps muscle, midway between the shoulder and the elbow
- THAI: *Upper Arm Circumference*—at the level of biceps muscle (relaxed), midway between shoulder and elbow

*Biceps Circumference, Extended—NATO (Continued)*

THOUSAND AVIATORS: *Biceps Resting [Circumference]*—at the midpoint  
... between ... acromial process and olecranon  
USMC: *Biceps Circumference, Relaxed*—at the level of the biceps muscle,  
midway between the shoulder and the elbow  
VIETNAM: *Upper Arm Circumference*—at the level of biceps muscle (re-  
laxed), midway between shoulder and elbow  
WAC: *Upper Arm Circumference*—midway between shoulder and elbow  
WASP: *Upper Arm Circumference*—at the maximum of the biceps muscle

Indeterminable:

None

See Also:

*Biceps Circumference, Flexed*

**BICEPS CIRCUMFERENCE, FLEXED**

Reference: ARMY '66

Subject stands erect, with his right arm bent, fist clenched, and biceps muscle flexed. The maximum circumference of the right upper arm is measured at the greatest bulge of the flexed biceps muscle. A steel tape is used.

N: 6682  
 $\bar{X}$ : 32.25 cm; 12.70 in  
SD: 2.74 cm; 1.08 in  
V%: 8.52

Similar Dimensions:

Equivalent:

BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference, Flexed*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference, Flexed*  
USN: *Biceps Circumference—Flexed*  
VAF RECRUITS: *Biceps Circumference (Flexed)*

*Biceps Circumference, Flexed—ARMY '66 (Continued)*

Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

Indeterminable:

None

See Also:

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE FLEXED**

Reference: BULGARIA

†Measured with a centimeter tape† at maximum tension of the muscles †at the most bulging part of biceps brachii.†

<i>Men</i>	<i>Women</i>
N: 1778	1578
$\bar{X}$ : [31.06 cm; 12.23 in]	[28.48 cm; 11.21 in]
Est SD: [2.47 cm; 0.97 in]	[2.91 cm; 1.15 in]
Est V%: [7.94]	[10.22]

Similar Dimensions:

Equivalent:

ARMY '66: *Biceps Circumference, Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference, Flexed*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference, Flexed*  
USN: *Biceps Circumference—Flexed*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

*Biceps Circumference Flexed—BULGARIA (Continued)*

Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

Indeterminable:

None

See Also:

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE (FLEXED)**

Reference: JAPAN

Subject bends his right arm and makes a fist while holding the upper arm horizontally. Using the tape, measure the maximum circumference around the biceps muscle.

N: 236  
 $\bar{X}$ : 30.27 cm; 11.92 in  
SD: 1.72 cm; 0.68 in  
V%: 5.70

Similar Dimensions:

Equivalent:

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference, Flexed*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference, Flexed*  
USN: *Biceps Circumference—Flexed*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

*Biceps Circumference (Flexed)—JAPAN (Continued)*

Indeterminable:

None

See Also:

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE (FLEXED)**

Reference: KOREA

Subject bends his right arm and makes a fist while holding the upper arm horizontally. Using the tape, measure the maximum circumference around the biceps muscle.

N: 264

$\bar{X}$ : 30.30 cm; 11.92 in

SD: 1.63 cm; 0.64 in

V%: 5.39

Similar Dimensions:

Equivalent:

ARMY '66: *Biceps Circumference, Flexed*

BULGARIA: *Biceps Circumference Flexed*

GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*

JAPAN: *Biceps Circumference (Flexed)*

MARTIN. *Groesster Umfang des rechten Oberarms bei Beugung*

NATO: *Biceps Circumference, Flexed*

NAVY RECRUITS: *Biceps Circumference, Flexed*

USAF '50: *Biceps Circumference (Flexed)*

USMC: *Biceps Circumference, Flexed*

USN: *Biceps Circumference—Flexed*

WAF RECRUITS: *Biceps Circumference (Flexed)*

Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

Indeterminable:

None

See Also:

*Biceps Circumference, Relaxed*

## BICEPS CIRCUMFERENCE, FLEXED

### Reference: NATO

Subject bends his right arm and makes a fist while holding the upper arm horizontally. Using the tape, measure the circumference of the arm at the biceps circumference landmark †the level of maximum protrusion of the biceps muscle when the subject bends his elbow to a right angle, holds his upper arm horizontal, and tenses the biceps to make a maximum "fist"†.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 29.77 cm; 11.72 in	30.64 cm; 12.06 in	30.94 cm; 12.18 in
SD: 2.37 cm; 0.93 in	2.08 cm; 0.82 in	2.11 cm; 0.83 in
V%: 7.96	6.77	6.82

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Biceps Circumference, Flexed*  
 BULGARIA: *Biceps Circumference Flexed*  
 GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
 JAPAN: *Biceps Circumference (Flexed)*  
 KOREA: *Biceps Circumference (Flexed)*  
 MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
 NAVY RECRUITS: *Biceps Circumference, Flexed*  
 USAF '50: *Biceps Circumference (Flexed)*  
 USMC: *Biceps Circumference, Flexed*  
 USN: *Biceps Circumference—Flexed*  
 WAF RECRUITS: *Biceps Circumference (Flexed)*

#### Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

#### Indeterminable:

None

### See Also:

*Biceps Circumference, Relaxed*

## BICEPS CIRCUMFERENCE, FLEXED

### Reference: NAVY RECRUITS

Subject stands erect, with his right arm bent, fist clenched, and biceps muscle flexed. The maximum circumference of the right upper arm is measured at the greatest bulge of the flexed biceps muscle. A steel tape is used.

N: 4095  
 $\bar{X}$ : 31.80 cm; 12.52 in  
SD: 2.71 cm; 1.07 in  
V%: 8.55

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference, Flexed*  
USN: *Biceps Circumference—Flexed*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

#### Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

#### Indeterminable:

None

#### See Also:

*Biceps Circumference, Relaxed*

## BICEPS CIRCUMFERENCE (FLEXED)

### Reference: USAF '50

Subject bends his right arm and makes a fist while holding the upper arm horizontally. Using the tape, measure the maximum circumference around the biceps muscle.

*Biceps Circumference (Flexed)—USAF '50 (Continued)*

N: 4063  
 $\bar{X}$ : 32.49 cm; 12.79 in  
SD: 2.11 cm; 1.07 in  
V%: 8.34

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference, Flexed*  
USMC: *Biceps Circumference, Flexed*  
USN: *Biceps Circumference—Flexed*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

**Not Equivalent:**

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE, FLEXED**

**Reference: USMC**

Subject stands erect, with his right arm bent, fist clenched, and biceps muscle flexed. The maximum circumference of the right upper arm is measured at the greatest bulge of the flexed biceps muscle. A steel tape is used.

N: 2008  
 $\bar{X}$ : 32.43 cm; 12.77 in

*Biceps Circumference, Flexed—USMC (Continued)*

SD: 2.41 cm; 0.95 in

V%: 7.45

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Biceps Circumference, Flexed*

BULGARIA: *Biceps Circumference Flexed*

GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*

JAPAN: *Biceps Circumference (Flexed)*

KOREA: *Biceps Circumference (Flexed)*

MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*

NATO: *Biceps Circumference, Flexed*

NAVY RECRUITS: *Biceps Circumference, Flexed*

USAF '50: *Biceps Circumference (Flexed)*

USN: *Biceps Circumference—Flexed*

WAF RECRUITS: *Biceps Circumference (Flexed)*

**Not Equivalent:**

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE—FLEXED**

**Reference: USN**

Subject bends his right arm and makes a fist while holding the upper arm horizontally. Using the tape, measure the circumference of the arm at the biceps circumference landmark †the level of maximum protrusion of the biceps muscle when the subject bends his elbow to a right angle, holds his upper arm horizontal, and tenses the biceps to make a maximum "fist"†.

N: 1549

$\bar{X}$ : 32.93 cm; 12.97 in

*Biceps Circumference—Flexed—USN (Continued)*

SD: 2.41 cm; 0.95 in  
V%: 7.33

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference, Flexed*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference, Flexed*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

**Not Equivalent:**

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* — midpoint of the arm between the right acromial process and olecranon

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE (FLEXED)**

**Reference:** WAF RECRUITS

Ask the subject to flex her right biceps muscle and measure the circumference at the point of maximum bulge with the tape held in a plane at right angles to the long axis of the upper arm.

N: 846  
 $\bar{X}$ : 26.67 cm; 10.50 in  
SD: 2.24 cm; 0.88 in  
V%: 8.40

*Biceps Circumference (Flexed)—WAF RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference, Flexed*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference, Flexed*  
USN: *Biceps Circumference—Flexed*

**Not Equivalent:**

THOUSAND AVIATORS: *Biceps Contracted [Circumference]*—midpoint of the arm between the right acromial process and olecranon

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Relaxed*

**BICEPS CIRCUMFERENCE, RELAXED**

**Reference: ARMY '66**

Subject stands erect, with his right arm held slightly away from the body. The circumference of the right upper arm is measured at the level of the biceps muscle, midway between the shoulder and the elbow. A steel tape is used.

N: 6682  
 $\bar{X}$ : 29.43 cm; 11.59 in  
SD: 2.74 cm; 1.08 in  
V%: 9.30

*Biceps Circumference, Relaxed—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

NAVY RECRUITS: *Biceps Circumference, Relaxed*  
THAI: *Upper Arm Circumference*  
THOUSAND AVIATORS: *Biceps Resting [Circumference]*  
USMC: *Biceps Circumference, Relaxed*  
VIETNAM: *Upper Arm Circumference*  
WAC: *Upper Arm Circumference*

**Not Equivalent:**

ARMY QM: *Lower Upper Arm Circumference*—one half inch above the maximum prominence of the entepicondylar process  
ARMY QM: *Middle Upper Arm Circumference*—midway between the axilla and the . . . cubital fossa  
BULGARIA: *Biceps Circumference Extended*—at the most bulging part of the biceps  
FAA: *Upper-Arm Circumference* — at the greatest diameter of the biceps  
FRANCE '65: *Périmètre maximum du membre supérieur*—[at the inferior insertion of the deltoid muscle]  
GENEVA: *Circumference of the Upper Arm [At Rest]*—maximum circumference  
MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung* — [at the maximum protrusion of the biceps muscle]  
MONTAGU: *Maximum Circumference of the Right Arm*—[maximum circumference]  
NATO: *Biceps Circumference, Extended*—at the . . . landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps  
WASP: *Upper Arm Circumference*—maximum of the biceps muscle

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Flexed*

**BICEPS CIRCUMFERENCE, RELAXED**

**Reference: NAVY RECRUITS**

Subject stands erect, with his right arm held slightly away from the body. The

*Biceps Circumference, Relaxed—NAVY RECRUITS (Continued)*

circumference of the right upper arm is measured at the level of the biceps muscle, midway between the shoulder and the elbow. A steel tape is used.

N: 4095  
 $\bar{X}$ : 28.93 cm; 11.39 in  
SD: 2.87 cm; 1.13 in  
V%: 9.95

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Biceps Circumference, Relaxed*  
THAI: *Upper Arm Circumference*  
THOUSAND AVIATORS: *Biceps Resting [Circumference]*  
USMC: *Biceps Circumference, Relaxed*  
VIETNAM: *Upper Arm Circumference*  
WAC: *Upper Arm Circumference*

**Not Equivalent:**

ARMY QM: *Lower Upper Arm Circumference*—one half inch above the maximum prominence of the entepicondylar process  
ARMY QM: *Middle Upper Arm Circumference*—midway between the axilla and the . . . cubital fossa  
BULGARIA: *Biceps Circumference Extended*—at the most bulging part of the biceps  
FAA: *Upper-Arm Circumference* — at the greatest diameter of the biceps  
FRANCE '65: *Périmètre maximum du membre supérieur*—[at the inferior insertion of the deltoid muscle]  
GENEVA: *Circumference of the Upper Arm [At Rest]*—maximum circumference  
MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung* — [at the maximum protrusion of the biceps muscle]  
MONTAGU: *Maximum Circumference of the Right Arm*—[maximum circumference]  
NATO: *Biceps Circumference, Extended*—at the . . . landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps  
WASP: *Upper Arm Circumference*—maximum of the biceps muscle

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Flexed*

## BICEPS CIRCUMFERENCE, RELAXED

### Reference: USMC

Subject stands erect, with his right arm held slightly away from the body. The circumference of the right upper arm is measured at the level of the biceps muscle, midway between the shoulder and the elbow. A steel tape is used.

N: 2008  
 $\bar{X}$ : 29.69 cm; 11.69 in  
SD: 2.36 cm; 0.93 in  
V%: 7.98

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Biceps Circumference, Relaxed*  
NAVY RECRUITS: *Biceps Circumference, Relaxed*  
THAI: *Upper Arm Circumference*  
THOUSAND AVIATORS: *Biceps Resting [Circumference]*  
VIETNAM: *Upper Arm Circumference*  
WAC: *Upper Arm Circumference*

#### Not Equivalent:

ARMY QM: *Lower Upper Arm Circumference*—one half inch above the maximum prominence of the entepicondylar process  
ARMY QM: *Middle Upper Arm Circumference*—midway between the axilla and the . . . cubital fossa  
BULGARIA: *Biceps Circumference Extended*—at the most bulging part of the biceps  
FAA: *Upper-Arm Circumference* — at the greatest diameter of the biceps  
FRANCE '65: *Périmètre maximum du membre supérieur*—[at the inferior insertion of the deltoid muscle]  
GENEVA: *Circumference of the Upper Arm [At Rest]*—maximum circumference  
MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung* — [at the maximum protrusion of the biceps muscle]  
MONTAGU: *Maximum Circumference of the Right Arm*—[maximum circumference]  
NATO: *Biceps Circumference, Extended*—at the . . . landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps  
WASP: *Upper Arm Circumference*—maximum of the biceps muscle

#### Indeterminable:

None

#### See Also:

*Biceps Circumference, Flexed*

## BICEPS CONTRACTED [CIRCUMFERENCE]

Reference: THOUSAND AVIATORS

†Assessed at the midpoint of the arm between the right acromial process and olecranon† Arm horizontal and forearm flexed with the fist tightly clenched.

N: 675  
 $\bar{X}$ : 34.67 cm; 13.65 in  
SD: 2.40 cm; 0.94 in  
V%: [6.9]

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

ARMY '66: *Biceps Circumference, Flexed*—at the greatest bulge of the flexed biceps muscle  
BULGARIA: *Biceps Circumference Flexed*—at the most bulging part of biceps brachii  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]* — maximum circumference . . . below the insertion of the deltoid muscle  
JAPAN: *Biceps Circumference (Flexed)*—around the biceps muscle  
KOREA: *Biceps Circumference (Flexed)*—around the biceps muscle  
MARTIN: *Groesster Umfang des rechten Oberarmes bei Beugung* — [at the greatest contraction of the biceps muscle]  
NATO: *Biceps Circumference, Flexed*—the level of maximum protrusion of the biceps muscle  
NAVY RECRUITS: *Biceps Circumference, Flexed*—at the greatest bulge of the flexed biceps muscle  
USAF '50: *Biceps Circumference (Flexed)*—around biceps muscle  
USMC: *Biceps Circumference, Flexed*—at the greatest bulge of the flexed biceps muscle  
USN: *Biceps Circumference—Flexed*—the level of maximum protrusion of the biceps muscle  
WAF RECRUITS: *Biceps Circumference (Flexed)*—at the point of maximum bulge

#### Indeterminable:

None

#### See Also:

*Biceps Circumference, Relaxed*

## BICEPS RESTING [CIRCUMFERENCE]

Reference: THOUSAND AVIATORS

†Assessed at the midpoint of the arm between the right acromial process and olecranon†. Arm hung loosely at side.

N: 675  
X: 32.78 cm; 12.91 in  
SD: 2.37 cm; 0.93 in  
V%: [7.23]

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Biceps Circumference, Relaxed*  
NAVY RECRUITS: *Biceps Circumference, Relaxed*  
THAI: *Upper Arm Circumference*  
USMC: *Biceps Circumference, Relaxed*  
VIETNAM: *Upper Arm Circumference*  
WAC: *Upper Arm Circumference*

#### Not Equivalent:

ARMY QM: *Lower Upper Arm Circumference*—one half inch above the maximum prominence of the entepicondylar process  
ARMY QM: *Middle Upper Arm Circumference*—midway between the axilla and the . . . cubital fossa  
BULGARIA: *Biceps Circumference Extended*—at the most bulging part of biceps brachii  
FAA: *Upper-Arm Circumference* — at the greatest diameter of the biceps  
FRANCE '65: *Périmètre maximum du membre supérieur*—[at the inferior insertion of the deltoid muscle]  
GENEVA: *Circumference of the Upper Arm [At Rest]*—maximum circumference  
MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung* — [at the maximum protrusion of the biceps muscle]  
MONTAGU: *Maximum Circumference of the Right Arm*—[maximum circumference]  
NATO: *Biceps Circumference, Extended*—at the . . . landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps  
WASP: *Upper Arm Circumference*—maximum of the biceps muscle

#### Indeterminable:

None

#### See Also:

*Biceps Circumference, Flexed*

## BICRISTAL BREADTH

Reference: BULGARIA

The distance between the two bicristale.[sic] Measured with pelvimeter.

Men	Women
N: 1659	1578
$\bar{X}$ : [28.15 cm; 11.08 in]	[27.97 cm; 11.01 in]
Est SD: [ 2.05 cm; 0.81 in]	[ 2.41 cm; 0.95 in]
Est V%: [7.29]	[8.63]

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

The reference dimension description does not specify pressure applied with the instrument.

AAF: *Bi-Iliac*

ARMY ARMORED: *Bi-Iliac*

ARMY QM: *Bi-Iliac*

COMAS: *Bi-Iliac or Pelvic Breadth*

GENEVA: *Bi-Cristal Diameter*

HRDLICKA: *Breadth of Pelvis*

MARTIN: *Groesste breite zwischen dem Darmbeinkaemmen*

MONTAGU: *Bi-Iliac or Pelvic Breadth*

TUFTS: *Bi-Iliac*

WASP: *Bi-Iliac*

### See Also:

*Bi-Spinal Diameter*

*Bi-Trochanteric Breadth—Bone*

*Hip Breadth*

## BI-CRISTAL DIAMETER

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface . . . no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inward, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal. Maximum distance between the external margins of the iliac crests. In making this measurement, the observer is to direct the arms of the sliding caliper obliquely downwards, and from before backwards.

No Data Available

Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

The reference dimension description does not specify pressure applied with the instrument.

AAF: *Bi-Iliac*

ARMY ARMORED: *Bi-Iliac*

ARMY QM: *Bi-Iliac*

BULGARIA: *Bicristal Breadth*

COMAS: *Bi-Iliac or Pelvic Breadth*

HRDLÍČKA: *Breadth of Pelvis*

MARTIN: *Groesste breite zwischen dem Darmbeinknaemmen*

MONTAGU: *Bi-Iliac or Pelvic Breadth*

TUFTS: *Bi-Iliac*

WASP: *Bi-Iliac*

See Also:

*Bi-Spinal Diameter*

*Pi-Trochanteric Breadth—Bone*

*Hip Breadth*

## BI-DELTOID

Reference: AAF

Arms at side, palms forward. Maximum contact dimension across deltoids (large muscles around shoulders).

<i>Cadets</i>	<i>Gunners</i>
N: 2955	584
Median: 45.72 cm; 18.0 in	44.90 cm; 17.7 in
SD: NDA	NDA
V%: NDA	NDA

### Similar Dimensions:

#### Equivalent:

ARMY ARMORED: *Bi-Deltoid*  
GENEVA: *Bi-Humeral Diameter*  
TUFTS: *Bi-Deltoid*  
WASP: *Bi-Deltoid*

#### Not Equivalent:

ARMY '66: *Shoulder Breadth (Bideltoid Breadth)*—arms bent to form right angles at the elbows and with his elbows held against the body  
HOOTON: *Shoulder Breadth*—[Subject wore street clothing.]  
INDIA: *Shoulder [Width]*— arm touching against the side of the body and the fore-arm at right angle  
KOREA: *Shoulder Breadth (Bideltoid Diameter)* — arms hanging at his sides, and his forearms extended horizontally  
NATO: *Bideltoid Breadth (Shoulder Breadth)* — arms hanging at his sides, and his lower arms extended forward  
NAVY RECRUITS: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals  
USAF '50: *Shoulder Breadth (Bi-Deltoid Diameter)* — upper arms hanging at his sides, and his forearms extended horizontally  
USMC: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
USN: *Bideltoid Diameter* — upper arms hanging at his sides, and his lower arms extended forward horizontally  
WAC: *Bideltoid* — upper arm parallel to the body and the hands clasped in lap

#### Indeterminable:

In the following references, the position of arms is not specified.

*Bi-Deltoid—AAF (Continued)*

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoid*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoidien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

**BI-DELTOID**

**Reference: ARMY ARMORED**

Arms at side, palms forward. Maximum contact dimension across deltoids (large muscles around shoulders).

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Deltoid*  
GENEVA: *Bi-Humeral Diameter*  
TUFTS: *Bi-Deltoid*  
WASP: *Bi-Deltoid*

**Not Equivalent:**

ARMY '66: *Shoulder Breadth (Bideltoïd Breadth)*—arms bent to form right angles at the elbows and with his elbows held against the body  
HOOTON: *Shoulder Breadth*—[Subject wore street clothing.]  
INDIA: *Shoulder [Width]*— arm touching against the side of the body and the fore-arm at right angle  
KOREA: *Shoulder Breadth (Bideltoïd Diameter)* — arms hanging at his sides, and his forearms extended horizontally  
NATO: *Bideltoïd Breadth (Shoulder Breadth)* — arms hanging at his sides, and his lower arms extended forward  
NAVY RECRUITS: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals

***Bi-Deltoid—ARMY ARMORED (Continued)***

USAF '50: *Shoulder Breadth (Bi-Deltoid Diameter)* — upper arms hanging at his sides, and his forearms extended horizontally  
USMC: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
USN: *Bideltoïd Diameter* — upper arms hanging at his sides, and his lower arms extended forward horizontally  
WAC: *Bideltoïd* — upper arm parallel to the body and the hands clasped in lap

Indeterminable:

In the following references, the position of arms is not specified.

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoid*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoïdien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

**BI-DELTOID**

**Reference: ARMY QM**

†Subject stands erect, with heels together and eyes straight ahead†. With anthropometer held horizontally just behind shoulder blades, measurement is taken between the most laterally projecting portions of the deltoid muscles. Contact measurement.

N: 24461  
 $\bar{X}$ : 45.59 cm; 17.95 in  
SD: 2.51 cm; 0.99 in  
V%: [5.5]

**Similar Dimensions:**

**Equivalent:**

None

*Bi-Deltoid—ARMY QM (Continued)*

**Not Equivalent:**

HOOTON: *Shoulder Breadth*—[Subject wore street clothing.]  
TUFTS: *Shoulder Breadth*—taken on clothed, seated individuals

**Indeterminable:**

Reference dimension description does not specify arm position.

AAF: *Bi-Deltoid*  
ARMY '66: *Shoulder Breadth (Bideloid Breadth)*  
ARMY ARMORED: *Bi-Deltoid*  
ARMY AVIATORS: *Shoulder Breadth*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoidien*  
GENEVA: *Bi-Humeral Diameter*  
INDIA: *Shoulder [Width]*  
KOREA: *Shoulder Breadth (Bideloid Diameter)*  
NATO: *Bideloid Breadth (Shoulder Breadth)*  
NAVY RECRUITS: *Shoulder Breadth (Bideloid Breadth)*  
THAI: *Shoulder Breadth*  
TUFTS: *Bi-Deltoid*  
USAF '50: *Shoulder Breadth (Bideloid Diameter)*  
USMC: *Shoulder Breadth (Bideloid Breadth)*  
USN: *Bideloid Diameter*  
VIETNAM: *Shoulder Breadth*  
WAC: *Bideloid*  
WASP: *Bi-Deltoid*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

**BI-DELTOID**

**Reference: TUFTS**

Arms at side, palms forward. Maximum contact dimension across deltoids (large muscles around shoulders).

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Deltoid*

*Bi-Deltoid—TUFTS (Continued)*

ARMY ARMORED: *Bi-Deltoid*  
GENEVA: *Bi-Humeral Diameter*  
WASP: *Bi-Deltoid*

**Not Equivalent:**

ARMY '66: *Shoulder Breadth (Bideltoïd Breadth)*—arms bent to form right angles at the elbows and with his elbows held against the body  
HOOTON: *Shoulder Breadth*—[Subject wore street clothing.]  
INDIA: *Shoulder [Width]*— arm touching against the side of the body and the fore-arm at right angle  
KOREA: *Shoulder Breadth (Bideltoïd Diameter)* — arms hanging at his sides, and his forearms extended horizontally  
NATO: *Bideltoïd Breadth (Shoulder Breadth)* — arms hanging at his sides, and his lower arms extended forward  
NAVY RECRUITS: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals  
USAF '50: *Shoulder Breadth (Bi-Deltoid Diameter)* — upper arms hanging at his sides, and his forearms extended horizontally  
USMC: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
USN: *Bideltoïd Diameter* — upper arms hanging at his sides, and his lower arms extended forward horizontally  
WAC: *Bideltoïd* — upper arm parallel to the body and the hands clasped in lap

**Indeterminable:**

In the following references, the position of arms is not specified.

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoid*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoïdien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

## BIDELTOID

### Reference: WAC

†Subject sat erect with eyes on an imaginary horizon† upper arm parallel to the body and the hands clasped in lap. Anthropometer held in rear of subject and parallel to the floor. Measurement taken as the maximum breadth across the deltoid muscles. Enough pressure applied to dent the skin.

No Data Available

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

AAF: *Bi-Deltoid* — Arms at side, palms forward

ARMY '66: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body

ARMY ARMORED: *Bi-Deltoid* — Arms at side, palms forward

GENEVA: *Bi-Humeral Diameter* — upper limbs are pendant, the palms of the hands turned inwards

HOOTON: *Shoulder Breadth* — [Subject wore street clothing.]

INDIA: *Shoulder [Width]* — arm touching against the side of the body and the fore-arm at right angle

KOREA: *Shoulder Breadth (Bideltoid Diameter)* — arms hanging at his sides, and his forearms extended horizontally

NATO: *Bideltoid Breadth (Shoulder Breadth)* — arms hanging at his sides, and his lower arms extended forward

NAVY RECRUITS: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body.

TUFTS: *Bi-Deltoid* — Arms at side, palms forward

TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals

USAF '50: *Shoulder Breadth (Bi-Deltoid Diameter)* — upper arms hanging at his sides, and his forearms extended horizontally

USMC: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body

USN: *Bideltoid Diameter* — upper arms hanging at his sides, and his lower arms extended forward horizontally

WASP: *Bi-Deltoid* — Arms at side, palms forward

#### Indeterminable:

In the following references, the position of arms is not specified.

*Bideltoïd—W/AC (Continued)*

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoid*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoïdien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

**BI-DELTOID**

**Reference: WASP**

Arms at side, palms forward. Maximum contact dimension across deltoids (large muscles around shoulders).

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 40.89 cm; 16.1 in	39.76 cm; 15.7 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Deltoid*  
ARMY ARMORED: *Bi-Deltoid*  
GENEVA: *Bi-Humeral Diameter*  
TUFTS: *Bi-Deltoid*

**Not Equivalent:**

ARMY '66: *Shoulder Breadth (Bideltoïd Breadth)*—arms bent to form right angles at the elbows and with his elbows held against the body  
HOOTON: *Shoulder Breadth*—[Subject wore street clothing.]  
INDIA: *Shoulder [Width]*— arm touching against the side of the body and the fore-arm at right angle  
KOREA: *Shoulder Breadth (Bideltoïd Diameter)*—arms hanging at his sides, and his forearms extended horizontally

*Bi-Deltoid—WASP (Continued)*

NATO: *Bideloid Breadth (Shoulder Breadth)* — arms hanging at his sides, and his lower arms extended forward

NAVY RECRUITS: *Shoulder Breadth (Bideloid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body

TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals

USAF '50: *Shoulder Breadth (Bi-Deltoid Diameter)* — upper arms hanging at his sides, and his forearms extended horizontally

USMC: *Shoulder Breadth (Bideloid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body

USN: *Bideloid Diameter* — upper arms hanging at his sides, and his lower arms extended forward horizontally

WAC: *Bideloid* — upper arm parallel to the body and the hands clasped in lap

Indeterminable:

In the following references, the position of arms is not specified.

ARMY AVIATORS: *Shoulder Breadth*

ARMY QM: *Bi-Deltoid*

FAA: *Shoulder Breadth*

FRANCE '65: *Diamètre bideltoidien*

THAI: *Shoulder Breadth*

VIETNAM: *Shoulder Breadth*

See Also:

*Biaxromial Diameter*

*Elbow to Elbow Breadth*

*Maximum Body Breadth*

**BIDELTOID BREADTH (SHOULDER BREADTH)**

Reference: NATO

Subject sits erect, his upper arms hanging at his sides, and his lower arms extended forward horizontally. Using the anthropometer, measure the horizontal distance across the maximum lateral protrusions of the right and left deltoid muscles.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 45.10 cm; 17.76 in	44.69 cm; 17.59 in	46.21 cm; 18.19 in
SD: 2.31 cm; 0.91 in	2.25 cm; 0.89 in	2.18 cm; 0.86 in
V%: 5.12	5.02	4.72

*Bideltoïd Breadth (Shoulder Breadth)—NATO (Continued)*

**Similar Dimensions:**

**Equivalent:**

KOREA: *Shoulder Breadth (Bideltoïd Diameter)*  
USAF '50: *Shoulder Breadth (Bi-Deltoïd Diameter)*  
USN: *Bideltoïd Diameter*

**Not Equivalent:**

AAF: *Bi-Deltoïd* — Arms at side, palms forward  
ARMY '66: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
ARMY ARMORED: *Bi-Deltoïd* — Arms at side, palms forward  
GENEVA: *Bi-Humeral Diameter* — upper limbs are pendant, the palms of the hands turned inwards  
HOOTON: *Shoulder Breadth* — [Subject wore street clothing.]  
INDIA: *Shoulder [Width]* — arm touching against the side of the body and the fore-arm at right angle  
NAVY RECRUITS: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
TUFTS: *Bi-Deltoïd* — Arms at side, palms forward  
TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals  
USMC: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
WAC: *Bideltoïd* — upper arm parallel to the body and the hands clasped in lap  
WASP: *Bi-Deltoïd* — Arms at side, palms forward

**Indeterminable:**

In the following references, the position of arms is not specified.

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoïd*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoïdien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

## BIDELTOID DIAMETER

### Reference: USN

Subject sits erect, his upper arms hanging at his sides, and his lower arms extended forward horizontally. Using the anthropometer, measure the horizontal distance across the maximum lateral protrusion of the right and left deltoid muscles.

N: 1549  
 $\bar{X}$ : 47.70 cm; 18.78 in  
SD: 2.30 cm; 0.91 in  
V%: 4.83

### Similar Dimensions:

#### Equivalent:

KOREA: *Shoulder Breadth (Bideltoid Diameter)*  
NATO: *Bideltoid Breadth (Shoulder Breadth)*  
USAF '50: *Shoulder Breadth (Bi-Deltoid Diameter)*

#### Not Equivalent:

AAF: *Bi-Deltoid* — Arms at side, palms forward  
ARMY '66: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
ARMY ARMORED: *Bi-Deltoid* — Arms at side, palms forward  
GENEVA: *Bi-Humeral Diameter* — upper limbs are pendant, the palms of the hands turned inwards  
HOOTON: *Shoulder Breadth* — [Subject wore street clothing.]  
INDIA: *Shoulder [Width]* — arm touching against the side of the body and the fore-arm at right angle  
NAVY RECRUITS: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
TUFTS: *Bi-Deltoid* — Arms at side, palms forward  
TUFTS: *Shoulder Breadth* — taken on clothed, seated individuals  
USMC: *Shoulder Breadth (Bideltoid Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
WAC: *Bideltoid* — upper arm parallel to the body and the hands clasped in lap  
WASP: *Bi-Deltoid* — Arms at side, palms forward

#### Indeterminable:

In the following references, the position of arms is not specified.

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoid*  
FAA: *Shoulder Breadth*

*Bideloid Diameter—USN (Continued)*

FRANCE '65: *Diametre bidelloïdien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Bicromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

**BI-EPICONDYLAR, ELBOWS**

**Reference: AAF**

Humeri vertical; arms pushed medially until they touch trunk wall. Hands on sides of thighs, knees together and right-angled, trunk erect. Distance between lateral epicondyles of humeri (outer projections of elbows).

<i>Cadets</i>	<i>Gunners</i>
N: 2955	584
Median: 42.40 cm; 16.7 in	41.61 cm; 16.4 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

ARMY ARMORED: *Bi-Epicondylar, Elbows*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
NATO: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*  
WASP: *Bi-Epicondylar, Elbows*

**Not Equivalent:**

None

**Indeterminable:**

Position of elbows relative to trunk not specified in following dimensions.

*Bi-Epicondylar, Elbows—AAF (Continued)*

FAA: *Elbow-Elbow Breadth*

WAC: *Elbow Breadth*

**See Also:**

*Maximum Body Breadth*

*Maximum Forearm - Forearm Breadth*

**BI-EPICONDYLAR, ELBOWS**

**Reference: ARMY ARMORED**

Humeri vertical; arms pushed medially until they touch trunk wall. Hands on sides of thighs, knees together and right-angled, trunk erect. Distance between lateral epicondyles of humeri (outer projections of elbows).

Reference cites AAF data for the dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Epicondylar, Elbows*

ARMY QM: *Elbow Breadth*

INDIA: *Elbows [Width]*

KOREA: *Elbow-to-Elbow Breadth*

NATO: *Elbow-to-Elbow Breadth*

USAF '50: *Elbow-to-Elbow Breadth*

US ADULTS: *Elbow-to-Elbow Breadth*

WASP: *Bi-Epicondylar, Elbows*

**Not Equivalent:**

None

**Indeterminable:**

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*

WAC: *Elbow Breadth*

**See Also:**

*Maximum Body Breadth*

*Maximum Forearm - Forearm Breadth*

## BI-EPICONDYLAR, ELBOWS

Reference: WASP

Humeri vertical; arms pushed medially until they touch trunk wall. Hands on sides of thighs, knees together and right-angled, trunk erect. Distance between lateral epicondyles of humeri (outer projections of elbows).

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 445	152
$\bar{X}$ : 38.43 cm; 15.1 in	37.86 cm; 14.9 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

AAF: *Bi-Epicondylar, Elbows*  
ARMY ARMORED: *Bi-Epicondylar, Elbows*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
NATO: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*

Not Equivalent:

None

Indeterminable:

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*  
WAC: *Elbow Breadth*

See Also:

*Maximum Body Breadth*  
*Maximum Forearm - Forearm Breadth*

## BI-EPICONDYLAR, FEMORAL

Reference: AAF

Knees at right angles, feet together, medial epicondyles of femora in firm apposition. Distance between lateral epicondyles (lateral projections of knees).

*Bi-Epicondylar, Femoral—AAF (Continued)*

<i>Cadets</i>	<i>Gunners</i>
N: 2955	581
Median: 19.62 cm; 7.7 in	19.28 cm; 7.6 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

ARMY ARMORED: *Bi-Epicondylar, Femoral*

**Not Equivalent:**

KOREA: *Knee-to-Knee Breadth* — knees touching lightly  
NATO: *Knee-to-Knee Breadth, Sitting* — knees touching lightly  
USAF '50: *Knee-to-Knee Breadth* — knees touching lightly

**Indeterminable:**

None

**See Also:**

*Maximum Knee Spread (Sitting)*

**BI-EPICONDYLAR, FEMORAL**

**Reference: ARMY ARMORED**

Knees at right angles, feet together, medial epicondyles of femora in firm apposition. Distance between lateral epicondyles (lateral projections of knees).

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Epicondylar, Femoral*

**Not Equivalent:**

KOREA: *Knee-to-Knee Breadth* — knees touching lightly  
NATO: *Knee-to-Knee Breadth, Sitting* — knees touching lightly

*Bi-Epicondylar, Femoral—ARMY ARMORED (Continued)*

USAF '50: *Knee-to-Knee Breadth* — knees touching lightly

Indeterminable:

None

See Also:

*Maximum Knee Spread (Sitting)*

## BIGONIAL

Reference: ARMY QM

The maximum breadth in the horizontal plane between the most lateral points of the total gonial angles †the point of intersection of the posterior border of the ascending ramus of the jaw with the inferior border of the body of the jaw†, gonion. Light contact.

N: 24432  
 $\bar{X}$ : 10.76 cm; 4.24 in  
SD: 0.60 cm; 0.24 in  
V%: [5.58]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

HRDLIČKA: *Bigonial Diameter* — sufficient pressure to feel . . . bone  
JAPAN: *Biogonial Diameter* — firm contact  
KOREA: *Bigonial Diameter* — firm contact  
NATO: *Bigonial Diameter* — firm contact  
USAF '50: *Bigonial Diameter*—firm contact  
USN: *Bigonial Diameter* — firm contact

Indeterminable:

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigonale*  
MARTIN: *Unterkieferwinkelbreite*

*Bigonial—ARMY QM (Continued)*

MONACO: *Diamètre bigoniaque*

MONTAGU: *Bigonial Breadth*

NORWAY: *Bigonial Breadth*

## BIGONIAL BREADTH

**Reference:** MONTAGU

(Spreading Caliper). The distance between the gonial points †the most lateral point upon the postero-inferior angle (formed by the ramus and the body) of the mandible†.

No Data Available

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

None

Indeterminable:

Reference dimension description does not specify pressure.

ARMY QM: *Bigonial*

FRANCE '65: *Largeur bigoniale*

HRDLIČKA: *Bigonial Diameter*

JAPAN: *Bigonial Diameter*

KOREA: *Bigonial Diameter*

MONACO: *Diametre bigoniaque*

NATO: *Bigonial Diameter*

NORWAY: *Bigonial Breadth*

USAF '50: *Bigonial Diameter*

USN: *Bigonial Diameter*

## BIGONIAL BREADTH

**Reference:** NORWAY

The outside breadth of the lower jaw at its hinder angles. Gonion is the most later-

*Bigonial Breadth—NORWAY (Continued)*

ally projecting point on the outside of the angle of the jaw projecting most downward, backward and outward.

N: 5765  
 $\bar{X}$ : 10.66 cm; 4.20 in  
SD: 0.53 cm; 0.21 in  
V%: 4.94

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

None

Indeterminable:

Reference dimension description does not specify pressure.

ARMY QM: *Bigonial*  
FRANCE '65: *Largeur bigoniale*  
HRDLIČKA: *Bigonial Diameter*  
JAPAN: *Bigonial Diameter*  
KOREA: *Bigonial Diameter*  
MONACO: *Diamètre bigonial*  
MONTAGU: *Bigonial Breadth*  
NATO: *Bigonial Diameter*  
USAF '50: *Bigonial Diameter*  
USN: *Bigonial Diameter*

**BIGONIAL DIAMETER**

**Reference: HRDLIČKA**

The distance on the lower face between the most widely separated external points on the bony angles of the lower jaw with sufficient pressure to feel the resistance of the bone.

No Data Available

*Bigonial Diameter—HRDLIČKA (Continued)*

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Bigonial Diameter*  
KOREA: *Bigonial Diameter*  
NATO: *Bigonial Diameter*  
USAF '50: *Bigonial Diameter*  
USN: *Bigonial Diameter*

**Not Equivalent:**

ARMY QM: *Bigonial—Light contact*

**Indeterminable:**

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigonale*  
MARTIN: *Unterkieferwinkelbreite*  
MONACO: *Diamètre bigoniaque*  
MONTAGU: *Bigonial Breadth*  
NORWAY: *Bigonial Breadth*

**BIGONIAL DIAMETER**

**Reference: JAPAN**

Holding the spreading caliper near its tips and using firm contact, measure the maximum horizontal width of the jaw across the gonial angles †*the angle at the back of the lower jaw formed by the intersection of the vertical portion with the lower edge of the horizontal portion of the jaw*†.

N: 238  
 $\bar{X}$ : 11.80 cm; 4.65 in  
SD: 0.76 cm; 0.30 in  
V%: 6.40

**Similar Dimensions:**

**Equivalent:**

HRDLIČKA: *Bigonial Diameter*  
KOREA: *Bigonial Diameter*  
NATO: *Bigonial Diameter*

*Bigonial Diameter—JAPAN (Continued)*

USAF '50: *Bigonial Diameter*

USN: *Bigonial Diameter*

Not Equivalent:

ARMY QM: *Bigonial* — Light contact

Indeterminable:

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigonale*

MARTIN: *Unterkieferwinkelbreite*

MONACO: *Diamètre bigoniaque*

MONTAGU: *Bigonial Breadth*

NORWAY: *Bigonial Breadth*

## BIGONIAL DIAMETER

**Reference: KOREA**

Holding the spreading caliper near its tips and using firm contact, measure the maximum horizontal width of the jaw across the gonial angles †the angle at the back of the lower jaw formed by the intersection of the vertical portion with the lower edge of the horizontal portion of the jaw†.

N: 264

$\bar{X}$ : 12.97 cm; 5.11 in

SD: 0.69 cm; 0.27 in

V%: 5.37

**Similar Dimensions:**

Equivalent:

HRDLIČKA: *Bigonial Diameter*

JAPAN: *Bigonial Diameter*

NATO: *Bigonial Diameter*

USAF '50: *Bigonial Diameter*

USN: *Bigonial Diameter*

Not Equivalent:

ARMY QM: *Bigonial* — Light contact

*Bigonial Diameter—KOREA (Continued)*

**Indeterminable:**

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigoniale*  
MARTIN: *Unterkieferwinkelbreite*  
MONACO: *Diamètre bigoniaque*  
MONTAGU: *Bigonial Breadth*  
NORWAY: *Bigonial Breadth*

**BIGONIAL DIAMETER**

**Reference: NATO**

Subject sits. Holding the spreading caliper near the tips and using firm contact, measure the maximum horizontal width of the jaw across the gonial angles †the obtuse angle at the back of the lower jaw formed by the intersection of the vertical and horizontal portions of the jaw†.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 11.36 cm; 4.47 in	11.24 cm; 4.43 in	11.19 cm; 4.41 in
SD: 0.66 cm; 0.26 in	0.57 cm; 0.23 in	0.60 cm; 0.24 in
V%: 5.78	5.10	5.32

**Similar Dimensions:**

**Equivalent:**

HRDLICKA: *Bigonial Diameter*  
JAPAN: *Bigonial Diameter*  
KOREA: *Bigonial Diameter*  
USAF '50: *Bigonial Diameter*  
USN: *Bigonial Diameter*

**Not Equivalent:**

ARMY QM: *Bigonial — Light contact*

**Indeterminable:**

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigoniale*  
MARTIN: *Unterkieferwinkelbreite*  
MONACO: *Diamètre bigoniaque*  
MONTAGU: *Bigonial Breadth*  
NORWAY: *Bigonial Breadth*

## BIGONIAL DIAMETER

Reference: USAF '50

Holding the spreading caliper near its tips and using firm contact, measure the maximum horizontal width of the jaw across the gonial angles *(the angle at the back of the lower jaw formed by the intersection of the vertical portion with the lower edge of the horizontal portion of the jaw).*

N: 4060  
 $\bar{X}$ : 10.85 cm; 4.27 in  
SD: 0.56 cm; 0.22 in  
V%: 5.11

### Similar Dimensions:

#### Equivalent:

HRDLICKA: *Bigonial Diameter*  
JAPAN: *Bigonial Diameter*  
KOREA: *Bigonial Diameter*  
NATO: *Bigonial Diameter*  
USN: *Bigonial Diameter*

#### Not Equivalent:

ARMY QM: *Bigonia!* — Light contact

#### Indeterminable:

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigoniale*  
MARTIN: *Unterkieferwinkelbreite*  
MONACO: *Diamètre bigoniaque*  
MONTAGU: *Bigonial Breadth*  
NORWAY: *Bigonial Breadth*

## BIGONIAL DIAMETER

Reference: USN

Subject sits. Holding the spreading caliper near the tips and using firm contact, measure the maximum horizontal width of the jaw across the gonial angles *(the obtuse angle at the back of the lower jaw formed by the intersection of the vertical and horizontal portions of the jaw).*

N: 1549  
 $\bar{X}$ : 11.91 cm; 4.69 in

*Bigonial Diameter—USN (Continued)*

SD: 0.85 cm; 0.34 in

V%: 7.16

**Similar Dimensions:**

**Equivalent:**

HRDLIČKA: *Bigonial Diameter*

JAPAN: *Bigonial Diameter*

KOREA: *Bigonial Diameter*

NATO: *Bigonial Diameter*

USAF '50: *Bigonial Diameter*

**Not Equivalent:**

ARMY QM: *Bigonial — Light contact*

**Indeterminable:**

In the following references, pressure is not specified.

FRANCE '65: *Largeur bigonale*

MARTIN: *Unterkieferwinkelbreite*

MONACO: *Diamètre bigoniaque*

MONTAGU: *Bigonial Breadth*

NORWAY: *Bigonial Breadth*

**BI-HUMERAL DIAMETER**

**Reference: GENEVA**

†The subject stands erect on a horizontal and resisting plane surface ...: no support is to be given by a vertical plane; the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal† Maximum distance between the two prominences formed by the deltoid muscles. Secondary measurement.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Deltoid*

*Bi-Humeral Diameter—GENEVA (Continued)*

ARMY ARMORED: *Bi-Deltoid*  
TUFTS: *Bi-Deltoid*  
WASP: *Bi-Deltoid*

**Not Equivalent:**

AAF: *Bi-Deltoid* — Arms at side, palms forward  
ARMY '66: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
ARMY ARMORED: *Bi-Deltoid* — Arms at side, palms forward  
HOOTON: *Shoulder Breadth* — [Subject wore street clothing.]  
INDIA: *Shoulder [Width]* — Arm touching against the side of the body and the fore-arm at right angle  
KOREA: *Shoulder Breadth (Bideltoïd Diameter)* — arms hanging at his sides, and his forearms extended horizontally  
NATO: *Bideltoïd Breadth (Shoulder Breadth)* — arms hanging at his sides, and his lower arms extended forward  
NAVY RECRUITS: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
TUFTS: *Bi-Deltoid* — Arms at side, palms forward  
TUFTS: *Shoulder Breadth* - Taken on clothed, seated individuals  
USAF: '50: *Shoulder Breadth (Bi-Deltoid Diameter)* — upper arms hanging at his sides, and his forearms extended horizontally  
USMC: *Shoulder Breadth (Bideltoïd Breadth)* — arms bent to form right angles at the elbows and with his elbows held against the body  
USN: *Bideltoïd Diameter* — upper arms hanging at his sides, and his lower arms extended forward horizontally  
WAC: *Bideltoïd* — upper arm parallel to the body and the hands clasped in lap.  
WASP: *Bi-Deltoid* — Arms at side, palms forward

**Indeterminable:**

In the following references, the position of arms is not specified.

ARMY AVIATORS: *Shoulder Breadth*  
ARMY QM: *Bi-Deltoid*  
FAA: *Shoulder Breadth*  
FRANCE '65: *Diamètre bideltoïdien*  
THAI: *Shoulder Breadth*  
VIETNAM: *Shoulder Breadth*

**See Also:**

*Biacromial Diameter*  
*Elbow to Elbow Breadth*  
*Maximum Body Breadth*

## BI-ILIAC

Reference: AAF

A firm pressure dimension, maximum iliac brim (across hip bones). Heels together.

<i>Cadets</i>	<i>Gunners</i>
N: 2956	584
Median: 28.89 cm; 11.4 in	28.60 cm; 11.3 in
SD: NDA	NDA
V%: NDA	NDA

### Similar Dimensions:

#### Equivalent:

ARMY ARMORED: *Bi-Iliac*  
ARMY QM: *Bi-Iliac*  
HRDLICKA: *Breadth of Pelvis*  
TUFTS: *Bi-Iliac*  
WASP: *Bi-Iliac*

#### Not Equivalent:

MARTIN: *Groesste Breite zwischen dem Darmbeinkaelmen* — [with slight pressure]  
THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine  
WAC: *Bi-Iliac* — between the two supra-spinales †the most anterior point on the anterior, superior iliac spine

#### Indeterminable:

In the following references, pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-Iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-Iliac or Pelvic Breadth*

#### See Also:

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth — Bone*  
*Hip Breadth*

## BI-ILIAC

Reference: ARMY ARMORED

A firm pressure dimension, maximum iliac brim (across hip-bones). Heels together.

Reference cites AAF data for this dimension.

*Bi-Iliac—ARMY ARMORED (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Iliac*  
ARMY QM: *Bi-Iliac*  
HRDLICKA: *Breadth of Pelvis*  
TUFTS: *Bi-Iliac*  
WASP: *Bi-Iliac*

**Not Equivalent:**

MARTIN: *Groesste Breite zwischen dem Darmbeinkammern* — [with slight pressure]  
THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine  
WAC: *Bi-Iliac* — between the two supra-spinales †the most anterior point on the anterior, superior iliac spine

**Indeterminable:**

In the following references, pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-Iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-Iliac or Pelvic Breadth*

**See Also:**

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth — Bone*  
*Hip Breadth*

**BI-ILIAC**

**Reference: ARMY QM**

†Subject stands erect, with heels together and eyes straight ahead†. Measurement is taken as the horizontal diameter between the left and right cristae †the most lateral point on the superior border of the iliac crest†. Pressure.

N: 24518  
X: 29.10 cm; 11.46 in

*Bi-Iliac—ARMY QM (Continued)*

SD: 2.02 cm; 0.79 in  
V%: [6.94]

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Iliac*  
ARMY ARMORED: *Bi-Iliac*  
HRDLICKA: *Breadth of Pelvis*  
TUFTS: *Bi-Iliac*  
WASP: *Bi-Iliac*

**Not Equivalent:**

MARTIN: *Groesste Breite zwischen dem Darmbeinkaemmen* — [with slight pressure]  
THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine  
WAC: *Bi-Iliac* — between the two supra-spinales †the most anterior point on the anterior, superior iliac spine

**Indeterminable.**

In the following references, pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-Iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-Iliac or Pelvic Breadth*

**See Also:**

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth — Bone*  
*Hip Breadth*

**BI-ILIAC OR PELVIC BREADTH**

**Reference: COMAS**

†With subject in standing position†. From iliocristale †the most laterally projecting point of the crest of the ilium† to iliocristale (sliding caliper).

No Data Available

*Bi-Iliac or Pelvic Breadth—COMAS (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine

WAC: *Bi-Iliac* — between the two supra-spinales *†the most anterior point on the anterior, superior iliac spine*

**Indeterminable:**

The reference dimension description does not specify pressure applied with the instrument.

AAF: *Bi-Iliac*

ARMY ARMORED: *Bi-Iliac*

ARMY QM: *Bi-Iliac*

BULGARIA: *Bicristal Breadth*

GENEVA: *Bi-Cristal Diameter*

HRDLICKA: *Breadth of Pelvis*

MARTIN: *Groesste Breite zwischen dem Darmbeinkaemmen*

MONTAGU: *Bi-Iliac or Pelvic Breadth*

TUFTS: *Bi-Iliac*

WASP: *Bi-Iliac*

**See Also:**

*Bi-Spinal Diameter*

*Bi-Trochanteric Breadth — Bone*

*Hip Breadth*

**BI-ILIAC OR PELVIC BREADTH**

**Reference: MONTAGU**

(Anthropometer used as a sliding compass). From iliocristale, the most lateral point on the crest of the ilium to iliocristale.

No Data Available

*Bi-Iliac or Pelvic Breadth—MONTAGU (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine

WAC: *Bi-Iliac* — between the two supra-spinales †the most anterior point on the anterior, superior iliac spine

**Indeterminable:**

The reference dimension description does not specify pressure applied with the instrument.

AAF: *Bi-Iliac*

ARMY ARMORED: *Bi-Iliac*

ARMY QM: *Bi-Iliac*

BULGARIA: *Bicristal Breadth*

COMAS: *Bi-Iliac or Pelvic Breadth*

GENEVA: *Bi-Cristal Diameter*

HRDLICKA: *Breadth of Pelvis*

MARTIN: *Groesste Breite zwischen dem Darmbeinkämmen*

TUFTS: *Bi-Iliac*

WASP: *Bi-Iliac*

**See Also:**

*Bi-Spinal Diameter*

*Bi-Trochanteric Breadth — Bone*

*Hip Breadth*

**BI-ILIAC**

**Reference: TUFTS**

A firm pressure dimension, maximum iliac brim (across hip bones). Heels together †standing†.

No Data Available

*Bi-Iliac—TUFTS (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Iliac*  
ARMY ARMORED: *Bi-Iliac*  
ARMY QM: *Bi-Iliac*  
HRDLÍČKA: *Breadth of Pelvis*  
WASP: *Bi-Iliac*

**Not Equivalent:**

MARTIN: *Groesste Breite zwischen dem Darmbeinkaemmen* — [with slight pressure]  
THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine  
WAC: *Bi-Iliac* — between the two supra-spinales †the most anterior point on the anterior, superior iliac spine

**Indeterminable:**

In the following references, pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-Iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-Iliac or Pelvic Breadth*

**See Also:**

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth — Bone*  
*Hip Breadth*

**BI-ILIAC**

**Reference: WAC**

†Subject stood erect without stretching, eyes on an imaginary horizon† Anthropometer held in front of subject and parallel to the floor. Subject asked to place her fingers on the anterior superior iliac spines. Using these as guides the measurement was taken between the two supra-spinales †the most anterior point on the anterior, superior iliac spine†.

No Data Available

*Bi-Iliac--WAC (Continued)*

**Similar Dimensions:**

**Equivalent:**

GENEVA: *Bi-Spinal Diameter*

MARTIN: *Breite zwischen den vorderen oberen Darmbeinstacheln*

THOUSAND AVIATORS: *Bi-Iliac Diameter*

**Not Equivalent:**

AAF: *Bi-Iliac* — maximum iliac brim

ARMY ARMORED: *Bi-Iliac* — maximum iliac brim

ARMY QM: *Bi-Iliac* — between the left and right cristale

COMAS: *Bi-Iliac* or *Pelvic Breadth* — From ilio-cristale . . . to ilio-cristale

MONTAGU: *Bi-Iliac* or *Pelvic Breadth* — From ilio-cristale . . . to ilio-cristale

TUFTS: *Bi-Iliac* — maximum iliac brim

WASP: *Bi-Iliac* — maximum iliac brim

**Indeterminable:**

None

**See Also:**

*Bi-Trochanteric Breadth — Bone*

*Breadth of Pelvis*

*Hip Breadth*

**BI-ILIAC**

**Reference: WASP**

A firm pressure dimension, maximum iliac brim (across hip bones). Heels together.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 27.95 cm; 11.0 in	28.36 cm; 11.2 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Iliac*

*Bi-Iliac—WASP (Continued)*

ARMY ARMORED: *Bi-Iliac*  
ARMY QM: *Bi-Iliac*  
HRDLICKA: *Breadth of Pelvis*  
TUFTS: *Bi-Iliac*

Not Equivalent:

MARTIN: *Groesste Breite zwischen dem Darmbeinknocmen* — [with slight pressure]  
THOUSAND AVIATORS: *Bi-Iliac Diameter* — to the anterior superior iliac spine  
WAC: *Bi-Iliac* — between the two supra-spinales †the most anterior point on the anterior, superior iliac spine

Indeterminable:

In the following references, pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-Iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-Iliac or Pelvic Breadth*

See Also:

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth — Bone*  
*Hip Breadth*

**BI-ILIAC DIAMETER**

**Reference: THOUSAND AVIATORS**

†Diameters were measured with an anthropometer to the nearest millimeter with firm pressure on bony prominences.† This measurement was made just inferior to the anterior superior iliac spine in the horizontal plane, with the legs together.

N: 675  
X: 29.11 cm; 11.46 in  
SD: 1.77 cm; 0.70 in  
V%: [6.08]

### *Bi-Iliac Diameter—THOUSAND AVIATORS (Continued)*

#### Similar Dimensions:

##### Equivalent:

GENEVA: *Bi-Spinal Diameter*

MARTIN: *Breite zwischen den vorderen oberen Darmbeinstacheln*

WAC: *Bi-Iliac*

##### Not Equivalent:

AAF: *Bi-Iliac* — maximum iliac brim

ARMY ARMORED: *Bi-Iliac* — maximum iliac brim

ARMY QM: *Bi-Iliac* — between the left and right cristale

COMAS: *Bi-Iliac or Pelvic Breadth* — From ilio cristale . . . to ilio cristale

MONTAGU: *Bi-Iliac or Pelvic Breadth* — From ilio cristale . . . to ilio cristale

TUFTS: *Bi-Iliac* — maximum iliac brim

WASP: *Bi-Iliac* — maximum iliac brim

##### Indeterminable:

None

#### See Also:

*Bi-Trochanteric Breadth — Bone*

*Breadth of Pelvis*

*Hip Breadth*

## BIMALLEOLAR BREADTH

#### Reference: KOREA

Subject stands, his legs slightly apart, and his weight equally distributed on both feet. Holding the bar of the sliding caliper perpendicular to the long axis of the foot, measure horizontally across the maximum protrusions of the medial and lateral ankle bones of the right foot.

N: 254

$\bar{X}$ : 7.47 cm; 2.94 in

SD: 0.41 cm; 0.16 in

V%: 5.48

#### Similar Dimensions:

##### Equivalent:

NATO: *Bimalleolar Breadth*

USAF '50: *Bimalleolar Breadth*

*Bimalleolar Breadth—KOREA (Continued)*

Not Equivalent:

THOUSAND AVIATORS: *Ankle Diameter* — with firm pressure

Indeterminable:

None

**BIMALLEOLAR BREADTH**

Reference: NATO

Subject stands, his legs slightly apart, and his weight equally distributed on both feet. Holding the anthropometer shaft perpendicular to the long axis of the foot, measure horizontally across the maximum protrusions of the medial and lateral ankle bones of the right foot.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 7.55 cm; 2.97 in	7.47 cm; 2.94 in	7.48 cm; 2.94 in
SD: 0.42 cm; 0.17 in	0.36 cm; 0.14 in	0.39 cm; 0.15 in
V%: 5.50	4.82	5.15

Similar Dimensions:

Equivalent:

KOREA: *Bimalleolar Breadth*  
USAF '50: *Bimalleolar Breadth*

Not Equivalent:

THOUSAND AVIATORS: *Ankle Diameter* — with firm pressure

Indeterminable:

None

**BIMALLEOLAR BREADTH**

Reference: USAF '50

Subject stands, his legs slightly apart, and his weight equally distributed on both feet. Holding bar of the sliding caliper perpendicular to the long axis of the foot,

*Bimalleolar Breadth--USAF '50 (Continued)*

measure horizontally across the maximum protrusions of the medial and lateral ankle bones of the right foot.

N: 4063  
 $\bar{X}$ : 7.49 cm; 2.95 in  
SD: 0.38 cm; 0.15 in  
V%: 5.10

**Similar Dimensions:**

**Equivalent:**

KOREA: *Bimalleolar Breadth*  
NATO: *Bimalleolar Breadth*

**Not Equivalent:**

THOUSAND AVIATORS: *Ankle Diameter* — with firm pressure

**Indeterminable:**

None

**BI-MAMMILLARY DIAMETER**

**Reference: GENEVA**

†The subject stands erect on a horizontal and resisting plane surface ...: no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downward, the heels in contact, and the axis of vision horizontal† Distance between the two nipple-points. †This measurement is not applicable to women with pendant breasts†

No Data Available

**Similar Dimensions:**

**Equivalent:**

MARTIN: *Breite zwischen den Brustwarzen*  
WAF RECRUITS: *Internipple*  
WAC: *Nipple - Nipple*

*Bi-Mammillary Diameter—GENEVA (Continued)*

Not Equivalent:

None

Indeterminable:

None

**BIOCULAR**

Reference: ARMY QM

Transverse diameter between right and left outer canthi †The point at the lateral angle of the eye where the eyelids join the skin of the face†.

N: 24361

$\bar{X}$ : 9.22 cm; 3.63 in

SD: 0.51 cm; 0.20 in

V%: [5.6]

Similar Dimensions:

Equivalent:

KOREA: *Biocular Diameter*

MONACO: *Largeur bipalpébrale externe*

MONTAGU: *Extra-Canthic Diameter*

NATO: *Biocular Diameter*

USAF '50: *Biocular Diameter*

USN: *Biocular Diameter*

WAC: *Biocular*

Not Equivalent:

None

Indeterminable:

None

**BIOCULAR**

Reference: WAC

†Subject sat erect with eyes on an imaginary horizon† and asked to look toward ceil-

### *Biocular—WAC (Continued)*

ing. Measurement taken from left to right outer canthus †*That point on the outer corner of the eye where the upper and lower lids meet and just lateral to the mucus membrane†.*

N: 9438  
 $\bar{X}$ : 9.02 cm; 3.55 in  
SD: 0.46 cm; 0.18 in  
V%: [5.1]

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY QM: *Biocular*  
KOREA: *Biocular Diameter*  
MONACO: *Largeur bipalpébrale externe*  
MONTAGU: *Extra-Canthic Diameter*  
NATO: *Biocular Diameter*  
USAF '50: *Biocular Diameter*  
USN: *Biocular Diameter*

##### **Not Equivalent:**

None

##### **Indeterminable:**

None

## **BIOCULAR DIAMETER**

#### **Reference: KOREA**

With the bar of the sliding caliper resting lightly on the subject's face, measure the distance between the outer corners of the eyes (external canthi).

N: 264  
 $\bar{X}$ : 9.68 cm; 3.81 in  
SD: 0.47 cm; 0.18 in  
V%: 4.85

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY QM: *Biocular*

*Biocular Diameter—KOREA (Continued)*

MONACO: *Largeur bipalpébrale externe*  
MONTAGU: *Extra-Canthic Diameter*  
NATO: *Biocular Diameter*  
USAF '50: *Biocular Diameter*  
USN: *Biocular Diameter*  
WAC: *Biocular*

Not Equivalent:

None

Indeterminable:

None

**BIOCULAR DIAMETER**

Reference: NATO

Subject sits. With the bar of the sliding caliper resting lightly on the subject's face, measure the distance between the outer corners of the eyes (external canthi).

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 9.15 cm; 3.60 in	9.05 cm; 3.56 in	9.10 cm; 3.58 in
SD: 0.40 cm; 0.16 in	0.39 cm; 0.15 in	0.39 cm; 0.15 in
V%: 4.34	4.36	4.25

Similar Dimensions:

Equivalent:

ARMY QM: *Biocular*  
KOREA: *Biocular Diameter*  
MONACO: *Largeur bipalpébrale externe*  
MONTAGU: *Extra-Canthic Diameter*  
USAF '50: *Biocular Diameter*  
USN: *Biocular Diameter*  
WAC: *Biocular*

Not Equivalent:

None

Indeterminable:

None

## BIOCULAR DIAMETER

Reference: USAF '50

With the bar of the sliding caliper resting lightly on the subject's face, measure the distance between the outer corners of the eyes (external canthi).

N: 4061  
 $\bar{X}$ : 9.59 cm; 3.78 in  
SD: 0.44 cm; 0.17 in  
V%: 4.61

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Biocular*  
KOREA: *Biocular Diameter*  
MONACO: *Longueur bipalpébrale externe*  
MONTAG: *Extra-Canthic Diameter*  
NATO: *Biocular Diameter*  
USN: *Biocular Diameter*  
WAC: *Biocular*

#### Not Equivalent:

None

#### Indeterminable:

None

## BIOCULAR DIAMETER

Reference: USN

Subject sits. With the bar of the sliding caliper resting lightly on the subject's face, measure the distance between the outer corners of the eyes (external canthi).

N: 1549  
 $\bar{X}$ : 9.43 cm; 3.71 in  
SD: 0.41 cm; 0.16 in  
V%: 4.30

*Biocular Diameter—USN (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Biocular*  
KOREA: *Biocular Diameter*  
MONACO: *Largeur bipalpébrale externe*  
MONTAGU: *Extra-Canthic Diameter*  
NATO: *Biocular Diameter*  
USAF '50: *Biocular Diameter*  
WAC: *Biocular*

**Not Equivalent:**

None

**Indeterminable:**

None

**BI-SPINAL DIAMETER**

**Reference: GENEVA**

†The subject stands erect on a horizontal and resisting plane surface . . . no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal; ‡ Measured between the 2 anterior superior iliac spines.

No Data Available

**Similar Dimensions:**

**Equivalent:**

MARTIN: *Breite zwischen den vorderen oberen Darmbeinstacheln*  
THOUSAND AVIATORS: *Bi-Iliac Diameter*  
WAC: *Bi-Iliac*

**Not Equivalent:**

None

*Bi-Spinal Diameter—GENEVA (Continued)*

Indeterminable:

None

See Also:

*Bi-Trochanteric Breadth — Bone  
Breadth of Pelvis  
Hip Breadth*

**BI-TRAGION**

Reference: TUFTS

Distance between the two tragia (tragion is defined as the point where the tragus of the ear terminates superiorly, i.e., the superior corner, toward the head, of the main excavation (concha) of the external ear). Contact only, no pressure.

No Data Available

Similar Dimensions:

Equivalent:

ARMY '66: *Bitragion Breadth*  
FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitragion Diameter*  
KOREA: *Bitragion Diameter*  
NATO: *Bitragion Diameter*  
NAVY RECRUITS: *Bitragion Breadth*  
USAF '50: *Bitragion Diameter*  
USMC: *Bitragion Breadth*  
USN: *Bitragion Diameter*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION BREADTH

Reference: ARMY '66

Subject sits erect, with head level. The horizontal breadth of the head is measured from the right trigion (the cartilaginous notch at the front of the right ear) to the corresponding trigion of the left ear. Spreading calipers are used.

N: 6682  
 $\bar{X}$ : 13.48 cm; 5.31 in  
SD: 0.55 cm; 0.22 in  
V%: 4.18

### Similar Dimensions:

#### Equivalent:

FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitrigion Diameter*  
KOREA: *Bitrigion Diameter*  
NATO: *Bitrigion Diameter*  
NAVY RECRUITS: *Bitrigion Breadth*  
TUFTS: *Bi-Trigion*  
USAF '50: *Bitrigion Diameter*  
USMC: *Bitrigion Breadth*  
USN: *Bitrigion Diameter*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRAGION BREADTH

Reference: NAVY RECRUITS

Subject sits erect, with head level. The horizontal breadth of the head is measured from the right trigion (the cartilaginous notch at the front of the right ear) to the corresponding trigion of the left ear. Spreading calipers are used.

N: 4095  
 $\bar{X}$ : 13.38 cm; 5.27 in  
SD: 0.53 cm; 0.21 in  
V%: 3.94

*Bitracion Breadth—NAVY RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Bitracion Breadth*  
FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitracion Diameter*  
KOREA: *Bitracion Diameter*  
NATO: *Bitracion Diameter*  
TUFTS: *Bi-Tracion*  
USAF '50: *Bitracion Diameter*  
USMC: *Bitracion Breadth*  
USN: *Bitracion Diameter*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRACION BREADTH**

**Reference: USMC**

Subject sits erect, with head level. The horizontal breadth of the head is measured from the right tracion (the cartilaginous notch at the front of the right ear) to the corresponding tracion of the left ear. Spreading calipers are used.

N: 2008  
 $\bar{X}$ : 13.46 cm; 5.30 in  
SD: 0.55 cm; 0.22 in  
V%: 4.09

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Bitracion Breadth*  
FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitracion Diameter*  
KOREA: *Bitracion Diameter*  
NATO: *Bitracion Diameter*  
NAVY RECRUITS: *Bitracion Breadth*

*Bitracion Breadth—USMC (Continued)*

TUFTS: *Bi-Tracion*

USAF '50: *Bitracion Diameter*

USN: *Bitracion Diameter*

Not Equivalent:

None

Indeterminable:

None

**BITRACION-CORONAL ARC**

**Reference: ARMY AVIATORS**

The distance over the top of the head from the notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch of the left ear.

N: 500

$\bar{X}$ : 35.34 cm; 13.91 in

SD: 1.15 cm; 0.45 in

V%: [3.25]

**Similar Dimensions:**

Equivalent:

FRANCE '65: *Longueur de l'arc bitragus coronal*

KOREA: *Bitracion-Coronal Arc*

MARTIN: *Transversaler Kopfbogen*

NATO: *Bitracion-Coronal Arc*

USAF '50: *Bitracion-Coronal Arc*

USN: *Bitracion-Coronal Arc*

WAF RECRUITS: *Coronal Arc*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-CORONAL ARC

### Reference: KOREA

Subject sits looking directly forward (head oriented in the Frankfort plane). With the tape passing over the top of the head, measure the arc from the cartilaginous notch (tragon) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 204  
 $\bar{X}$ : 38.28 cm; 15.07 in  
SD: 2.49 cm; 0.98 in  
V%: 6.49

### Similar Dimensions:

#### Equivalent:

ARMY AVIATORS: *Bitracion-Coronal Arc*  
FRANCE '65: *Longueur de l'arc bitragus coronal*  
MARTIN: *Transversaler Kopfbogen*  
NATO: *Bitracion-Coronal Arc*  
USAF '50: *Bitracion-Coronal Arc*  
USN: *Bitracion-Coronal Arc*  
WAF RECRUITS: *Coronal Arc*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRACION-CORONAL ARC

### Reference: NATO

Subject sits. With the tape passing over the top of the head, measure the surface distance from right tragon, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragon of the left ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 35.63 cm; 14.03 in	35.85 cm; 14.11 in	35.56 cm; 14.00 in
SD: 1.30 cm; 0.51 in	1.28 cm; 0.50 in	1.26 cm; 0.50 in
V%: 3.65	3.57	3.53

*Bitracion-Coronal Arc—NATO (Continued)*

ARMY AVIATORS: *Bitracion-Coronal Arc*  
FRANCE '65: *Longueur de l'arc bitragus coronal*  
KOREA: *Bitracion-Coronal Arc*  
MARTIN: *Transversaler Kopfbogen*  
USAF '50: *Bitracion-Coronal Arc*  
USN: *Bitracion-Coronal Arc*  
WAF RECRUITS: *Coronal Arc*

Not Equivalent:

None

Indeterminable:

None

**BITRACION-CORONAL ARC**

**Reference: USAF '50**

Subject sits looking directly forward (head oriented in the Frankfort plane). With the tape passing over the top of the head, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4059  
X: 35.14 cm; 13.83 in  
SD: 1.29 cm; 0.51 in  
V%: 3.67

**Similar Dimensions:**

Equivalent:

ARMY AVIATORS: *Bitracion-Coronal Arc*  
FRANCE '65: *Longueur de l'arc bitragus coronal*  
KOREA: *Bitracion-Coronal Arc*  
MARTIN: *Transversaler Kopfbogen*  
NATO: *Bitracion-Coronal Arc*  
USN: *Bitracion-Coronal Arc*  
WAF RECRUITS: *Coronal Arc*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-CORONAL ARC

Reference: USN

Subject sits. With the tape passing over the top of the head, measure the surface distance from right trigion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding trigion of the left ear.

N: 1549  
X: 35.52 cm; 13.98 in  
SD: 1.32 cm; 0.52 in  
V%: 3.72

Similar Dimensions:

Equivalent:

ARMY AVIATORS: *Bitrigion-Coronal Arc*  
FRANCE '65: *Longueur de l'arc bitragus coronal*  
KOREA: *Bitrigion-Coronal Arc*  
MARTIN: *Transversaler Kopfbogen*  
NATO: *Bitrigion-Coronal Arc*  
USAF '50: *Bitrigion-Coronal Arc*  
WAF RECRUITS: *Coronal Arc*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-CRINION ARC

Reference: KOREA

Subject sits. With the tape passing over the midpoint of the hairline, measure the arc from the cartilaginous notch (trigion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264  
X: 33.94 cm; 13.36 in  
SD: 1.35 cm; 0.73 in  
V%: 5.44

*Bitragion-Crinion Arc—KOREA (Continued)*

**Similar Dimensions:**

**Equivalent:**

USAF '50: *Bitragion-Crinion Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRAGION-CRINION ARC**

**Reference: USAF '50**

Subject sits. With the tape passing over the midpoint of the hairline, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 3688

$\bar{X}$ : 33.28 cm; 13.10 in

SD: 1.35 cm; 0.53 in

V%: 4.06

**Similar Dimensions:**

**Equivalent:**

KOREA: *Bitragion-Crinion Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

## BITRAGION DIAMETER

### Reference: JAPAN

Holding the spreading caliper near its tips, measure the diameter from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 221  
X: 14.21 cm; 5.60 in  
SD: 0.65 cm; 0.26 in  
V%: 4.60

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Bitracion Breadth*  
FRANCE '65: *Largeur bitragus*  
KOREA: *Bitracion Diameter*  
NATO: *Bitracion Diameter*  
NAVY RECRUITS: *Bitracion Breadth*  
TUFTS: *Bi-Tracion*  
USAF '50: *Bitracion Diameter*  
USMC: *Bitracion Breadth*  
USN: *Bitracion Diameter*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRAGION D'AMETER

### Reference: KOREA

Holding the spreading caliper near its tips, measure the diameter from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264  
X: 15.98 cm; 6.29 in  
SD: 0.54 cm; 0.21 in  
V%: 15.98 [Sic] [3.38]

*Bitracion Diameter—KOREA (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Bitracion Breadth*  
FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitracion Diameter*  
NATO: *Bitracion Diameter*  
NAVY RECRUITS: *Bitracion Breadth*  
TUFTS: *Bi-Tracion*  
USAF '50: *Bitracion Diameter*  
USMC: *Bitracion Breadth*  
USN: *Bitracion Diameter*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRACION DIAMETER**

**Reference: NATO**

Subject sits. Holding the spreading caliper near the tips, measure the diameter from right tracion, the cartilaginous notch just forward of the upper edge of right ear hole, to the corresponding tracion of the left ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 14.50 cm; 5.71 in	14.48 cm; 5.70 in	14.51 cm; 5.71 in
SD: 0.56 cm; 0.22 in	0.53 cm; 0.21 in	0.51 cm; 0.20 in
V%: 3.84	3.69	3.54

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Bitracion Breadth*  
FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitracion Diameter*  
KOREA: *Bitracion Diameter*

*Bitracion Diameter—NATO (Continued)*

NAVY RECRUITS: *Bitracion Breadth*

TUFTS: *Bi-Tracion*

USAF '50: *Bitracion Diameter*

USMC: *Bitracion Breadth*

USN: *Bitracion Diameter*

Not Equivalent:

None

Indeterminable:

None

**BITRACION DIAMETER**

**Reference: USAF '50**

Holding the spreading caliper near its tips, measure the diameter from the cartilaginous notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4060  
 $\bar{X}$ : 14.22 cm; 5.60 in  
SD: 0.53 cm; 0.21 in  
V%: 3.62

**Similar Dimensions:**

Equivalent:

ARMY '66: *Bitracion Breadth*

FRANCE '65: *Largeur bitragus*

JAPAN: *Bitracion Diameter*

KOREA: *Bitracion Diameter*

NATO: *Bitracion Diameter*

NAVY RECRUITS: *Bitracion Breadth*

TUFTS: *Bi-Tracion*

USMC: *Bitracion Breadth*

USN: *Bitracion Diameter*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION DIAMETER

Reference: USN

Subject sits. Holding the spreading caliper near the tips, measure the diameter from the right tragon, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragon of the left ear.

N: 1549  
 $\bar{X}$ : 13.99 cm; 5.51 in  
SD: 0.52 cm; 0.21 in  
V%: 3.73

### Similar Dimensions:

Equivalent:

ARMY '66: *Bitracion Breadth*  
FRANCE '65: *Largeur bitragus*  
JAPAN: *Bitracion Diameter*  
KOREA: *Bitracion Diameter*  
NATO: *Bitracion Diameter*  
NAVY RECRUITS: *Bitracion Breadth*  
TUFTS: *Bi-Tracion*  
USAF '50: *Bitracion Diameter*  
USMC: *Bitracion Breadth*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-INION ARC

Reference: KOREA

Subject sits, looking directly forward (head oriented in the Frankfort plane.) With the tape passing over inion (a small bony bump often found at the rearmost part of the head), measure the arc from the cartilaginous notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264  
 $\bar{X}$ : 27.59 cm; 10.86 in

*Bitracion-Inion Arc—KOREA (Continued)*

SD: 1.40 cm; 0.55 in  
V%: 5.07

**Similar Dimensions:**

**Equivalent:**

USAF '50: *Bitracion-Inion Arc*  
USN: *Bitracion-Inion Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRACION-INION ARC**

**Reference: USAF '50**

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over inion *to a small bony bump often found at the rearmost part of the head*†, measure the arc from the cartilaginous notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4059  
 $\bar{X}$ : 29.51 cm; 11.62 in  
SD: 1.40 cm; 0.55 in  
V%: 4.75

**Similar Dimensions:**

**Equivalent:**

KOREA: *Bitracion-Inion Arc*  
USN: *Bitracion-Inion Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

## BITRAGION-INION ARC

### Reference: USN

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over inion *to a small bony bump often found at the rearmost part of the head*, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear. [USAF '50]

N: 1549  
 $\bar{X}$ : 31.44 cm; 12.38 in  
SD: 2.09 cm; 0.82 in  
V%: 6.65

### Similar Dimensions:

#### Equivalent:

KOREA: *Bitragion-Inion Arc*  
USAF '50: *Bitragion-Inion Arc*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRAGION-MENTON ARC

### Reference: ARMY AVIATORS

The distance over the chin from the notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch of the left ear.

N: 500  
 $\bar{X}$ : 32.20 cm; 12.68 in  
SD: 1.16 cm; 0.46 in  
V%: [3.60]

### Similar Dimensions:

#### Equivalent:

FRANCE '65: *Longueur de l'arc bitragus mentonnier*

*Bitragion-Menton Arc*—ARMY AVIATORS (Continued)

JAPAN: *Bitragion-Menton Arc*  
KOREA: *Bitragion-Menton Arc*  
NATO: *Bitragion-Menton Arc*  
USAF '50: *Bitragion-Menton Arc*  
USN: *Bitragion-Menton Arc*

Not Equivalent:

None

Indeterminable:

None

**BITRAGION-MENTON ARC**

**Reference: JAPAN**

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over the tip of the chin (menton) †*the lower surface of the tip of the chin in the midsagittal plane*†, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 236  
X: 31.96 cm; 12.58 in  
SD: 1.21 cm; 0.48 in  
V%: 3.80

**Similar Dimensions:**

Equivalent:

ARMY AVIATORS: *Bitragion-Menton Arc*  
FRANCE '65: *Longueur de l'arc bitragus mentonnier*  
KOREA: *Bitragion-Menton Arc*  
NATO: *Bitragion-Menton Arc*  
USAF '50: *Bitragion-Menton Arc*  
USN: *Bitragion-Menton Arc*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-MENTON ARC

### Reference: KOREA

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over the tip of the chin (menton) *†the lower surface of the tip of the chin in the midsagittal plane†*, measure the arc from the cartilaginous notch (tragon) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264  
 $\bar{X}$ : 31.73 cm; 12.49 in  
SD: 1.51 cm; 0.59 in  
V%: 4.75

### Similar Dimensions:

#### Equivalent:

ARMY AVIATORS: *Bitracion-Menton Arc*  
FRANCE '65: *Longueur de l'arc bitragus mentonnier*  
JAPAN: *Bitracion-Menton Arc*  
NATO: *Bitracion-Menton Arc*  
USAF '50: *Bitracion-Menton Arc*  
USN: *Bitracion-Menton Arc*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRAGION-MENTON ARC

### Reference: NATO

Subject sits. With the tape passing over the menton landmark *†the lower edge of the tip of the chin in the midsagittal plane†* on the chin, measure the surface distance from right tragon, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragon of the left ear.

*Bitragion-Menton Arc—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 31.70 cm; 12.48 in	32.01 cm; 12.60 in	32.49 cm; 12.79 in
SD: 1.22 cm; 0.48 in	1.24 cm; 0.49 in	1.21 cm; 0.48 in
V%: 3.85	3.86	3.71

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Bitragion-Menton Arc*  
 FRANCE '65: *Longueur de l'arc bitragus mentonnier*  
 JAPAN: *Bitragion-Menton Arc*  
 KOREA: *Bitragion-Menton Arc*  
 USAF '50: *Bitragion-Menton Arc*  
 USN: *Bitragion-Menton Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRAGION-MENTON ARC**

**Reference: USAF '50**

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over the tip of the chin (menton) †*the lower surface of the tip of the chin in the midsagittal plane*†, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4062  
 $\bar{X}$ : 32.45 cm; 12.78 in  
 SD: 1.28 cm; 0.50 in  
 V%: 3.94

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Bitragion-Menton Arc*

*Bitragion-Menton Arc—USAF '50 (Continued)*

FRANCE '65: *Longueur de l'arc bitragus mentonnier*

JAPAN: *Bitragion-Menton Arc*

KOREA: *Bitragion-Menton Arc*

NATO: *Bitragion-Menton Arc*

USN: *Bitragion-Menton Arc*

Not Equivalent:

None

Indeterminable:

None

**BITRAGION-MENTON ARC**

**Reference: USN**

Subject sits. With the tape passing over the menton landmark *(the lower edge of the tip of the chin in the midsagittal plane)* on the chin, measure the surface distance from right tragion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragion of the left ear.

N: 1549

$\bar{X}$ : 32.21 cm; 12.68 in

SD: 1.27 cm; 0.50 in

V%: 3.95

**Similar Dimensions:**

Equivalent:

ARMY AVIATORS: *Bitragion-Menton Arc*

FRANCE '65: *Longueur de l'arc bitragus mentonnier*

JAPAN: *Bitragion-Menton Arc*

KOREA: *Bitragion-Menton Arc*

NATO: *Bitragion-Menton Arc*

USAF '50: *Bitragion-Menton Arc*

Not Equivalent:

None

Indeterminable:

None

## **BITRAGION-MINIMUM FRONTAL ARC**

### **Reference: ARMY AVIATORS**

The distance over the forehead above the eyebrows from the notch (tragon) just forward of the upper edge of the right ear hole to the corresponding notch of the left ear.

N: 500  
X: 30.55 cm; 12.03 in  
SD: 1.01 cm; 0.40 in  
V%: [3.31]

### **Similar Dimensions:**

#### **Equivalent:**

JAPAN: *Bitracion-Minimum Frontal Arc*  
KOREA: *Bitracion-Minimum Frontal Arc*  
NATO: *Bitracion-Minimum Frontal Arc*  
USAF '50: *Bitracion-Minimum Frontal Arc*  
USN: *Bitracion-Minimum Frontal Arc*

#### **Not Equivalent:**

None

#### **Indeterminable:**

None

## **BITRAGION-MINIMUM FRONTAL ARC**

### **Reference: JAPAN**

Subject sits. With the tape passing over the region of the minimum frontal arc, measure the arc from the cartilaginous notch (tragon) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 174  
X: 31.60 cm; 12.44 in  
SD: 1.10 cm; 0.43 in  
V%: 3.50

*Bitracion-Minimum Frontal Arc—JAPAN (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Bitracion-Minimum Frontal Arc*

KOREA: *Bitracion-Minimum Frontal Arc*

NATO: *Bitracion-Minimum Frontal Arc*

USAF '50: *Bitracion-Minimum Frontal Arc*

USN: *Bitracion-Minimum Frontal Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRACION-MINIMUM FRONTAL ARC**

**Reference: KOREA**

Subject sits. With the tape passing over the region of the minimum frontal arc, measure the arc from the cartilaginous notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264

$\bar{X}$ : 31.24 cm; 12.29 in

SD: 1.67 cm; 0.66 in

V%: 5.34

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Bitracion-Minimum Frontal Arc*

JAPAN: *Bitracion-Minimum Frontal Arc*

NATO: *Bitracion-Minimum Frontal Arc*

USAF '50: *Bitracion-Minimum Frontal Arc*

USN: *Bitracion-Minimum Frontal Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

## BITRAGION-MINIMUM FRONTAL ARC

Reference: NATO

Subject sits. With the tape passing over the minimum frontal arc landmarks †the points of greatest indentation medially of the temporal crests of the frontal bone†, measure the surface distance from right tragion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragion of the left ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 29.93 cm; 11.78 in	30.20 cm; 11.89 in	30.48 cm; 12.00 in
SD: 1.07 cm; 0.42 in	1.07 cm; 0.42 in	1.03 cm; 0.41 in
V%: 3.57	3.55	3.38

### Similar Dimensions:

#### Equivalent:

ARMY AVIATORS: *Bitragion-Minimum Frontal Arc*

JAPAN: *Bitragion-Minimum Frontal Arc*

KOREA: *Bitragion-Minimum Frontal Arc*

USAF '50: *Bitragion-Minimum Frontal Arc*

USN: *Bitragion-Minimum Frontal Arc*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRAGION-MINIMUM FRONTAL ARC

Reference: USAF '50

Subject sits. With the tape passing over the region of the minimum frontal arc, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4055
$\bar{X}$ : 30.61 cm; 12.05 in
SD: 1.12 cm; 0.44 in
V%: 3.66

*Bitracion-Minimum Frontal Arc—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Bitracion-Minimum Frontal Arc*  
JAPAN: *Bitracion-Minimum Frontal Arc*  
KOREA: *Bitracion-Minimum Frontal Arc*  
NATO: *Bitracion-Minimum Frontal Arc*  
USN: *Bitracion-Minimum Frontal Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRACION-MINIMUM FRONTAL ARC**

**Reference: USN**

Subject sits. With the tape passing over the minimum frontal arc landmarks *†the points of greatest indentation medial'y of the temporal crests of the frontal bone†*, measure the surface distance from right tracion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tracion of the left ear.

N: 1549  
 $\bar{X}$ : 30.20 cm; 11.89 in  
SD: 1.08 cm; 0.43 in  
V%: 3.59

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Bitracion-Minimum Frontal Arc*  
JAPAN: *Bitracion-Minimum Frontal Arc*  
KOREA: *Bitracion-Minimum Frontal Arc*  
NATO: *Bitracion-Minimum Frontal Arc*  
USAF '50: *Bitracion-Minimum Frontal Arc*

*Bitracion-Minimum Frontal Arc—USN (Continued)*

Not Equivalent:

None

Indeterminable:

None

**BITRACION-POSTERIOR ARC**

**Reference: KOREA**

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over the lowest point of the skull which can be felt with a finger among the neck muscles, measure the arc from the cartilaginous notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264

$\bar{X}$ : 26.65 cm; 10.49 in

SD: 1.87 cm; 0.74 in

V%: 7.02

**Similar Dimensions:**

Equivalent:

NATO: *Bitracion-Posterior Arc*

USAF '50: *Bitracion-Posterior Arc*

WAF RECRUITS: *Posterior Arc*

Not Equivalent:

FRANCE '65: *Longueur de l'arc postérieur de la tête*—[under the occipital tuberosity]

Indeterminable:

None

**See Also:**

*Bitracion-Inion Arc*

## BITRAGION-POSTERIOR ARC

### Reference: NATO

Subject sits. With the tape passing over the nuchale landmark indicating the lowest palpable point of the occiput *in the midsagittal plane*, measure the surface distance from right tragon, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragon of the left ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 595	1084	13.58
$\bar{X}$ : 26.03 cm; 10.25 in	26.02 cm; 10.24 in	26.49 cm; 10.43 in
SD: 1.15 cm; 0.45 in	1.01 cm; 0.40 in	1.03 cm; 0.41 in
V%: 4.41	3.89	3.90

### Similar Dimensions:

#### Equivalent:

KOREA: *Bitracion-Posterior Arc*  
 USAF '50: *Bitracion-Posterior Arc*  
 WAF RECRUITS: *Posterior Arc*

#### Not Equivalent:

FRANCE '65: *Longueur de l'arc postérieur de la tête*—[under the occipital tuberosity]

#### Indeterminable:

None

### See Also:

*Bitracion-Inion Arc*

## BITRAGION-POSTERIOR ARC

### Reference: USAF '50

Subject sits, looking directly forward (head oriented in the Frankfort plane). With the tape passing over the lowest point of the skull which can be felt with a finger among the neck muscles, measure the arc from the cartilaginous notch (tragon) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

*Bitracion-Posterior Arc—USAF '50 (Continued)*

N: 4061  
 $\bar{X}$ : 27.20 cm; 10.71 in  
SD: 1.22 cm; 0.48 in  
V%: 4.48

**Similar Dimensions:**

**Equivalent:**

KOREA: *Bitracion-Posterior Arc*  
NATO: *Bitracion-Posterior Arc*  
WAF RECRUITS: *Posterior Arc*

**Not Equivalent:**

FRANCE '65: *Longueur de l'arc postérieur de la tête*—[under the occipital tuberosity]

**Indeterminable:**

None

**See Also:**

*Bitracion-Inion Arc*

**BITRACION-SUBMANDIBULAR ARC**

**Reference: KOREA**

Subject sits. With the tape passing under the gonial angles of the jaw and along the juncture of the jaw and the neck †the angle at the back of the lower jaw formed by the intersection of the vertical portion with the lower edge of the horizontal portion of the jaw†, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264  
 $\bar{X}$ : 29.87 cm; 11.76 in  
SD: 1.67 cm; 0.66 in  
V%: 5.60

**Similar Dimensions:**

**Equivalent:**

FAA: *Ear-Neck Arc*  
NATO: *Bitracion-Submandibular Arc*

*Bitracion-Submandibular Arc—KOREA (Continued)*

USAF '50: *Bitracion-Submandibular Arc*

USN: *Bitracion-Submandibular Arc*

Not Equivalent:

None

Indeterminable:

None

**BITRACION-SUBMANDIBULAR ARC**

Reference: NATO

Subject sits. With the tape passing under the gonial angles of the jaw *†the obtuse angle at the back of the lower jaw formed by the intersection of the vertical and horizontal portions of the jaw†* and over the landmark indicating the juncture of the jaw and neck *†the junction in the midsagittal plane of the under surface of the jaw with the column of the neck†*, measure the surface distance from right tracion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tracion of the left ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 595	1084	1358
$\bar{X}$ : 30.00 cm; 11.81 in	30.12 cm; 11.86 in	30.74 cm; 12.10 in
SD: 1.37 cm; 0.54 in	1.25 cm; 0.49 in	1.42 cm; 0.56 in
V%: 4.57	4.15	4.62

Similar Dimensions:

Equivalent:

FAA: *Ear-Neck Arc*

KOREA: *Bitracion-Submandibular Arc*

USAF '50: *Bitracion-Submandibular Arc*

USN: *Bitracion-Submandibular Arc*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-SUBMANDIBULAR ARC

Reference: USAF '50

Subject sits. With the tape passing under the gonial angles of the jaw and along the juncture of the jaw and the neck *†the angle at the back of the lower jaw formed by the intersection of the vertical portion with the lower edge of the horizontal portion of the jaw†*, measure the arc from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4063  
X: 30.69 cm; 12.08 in  
SD: 1.57 cm; 0.62 in  
V%: 5.12

Similar Dimensions:

Equivalent:

FAA: Ear-Neck Arc  
KOREA: Bitracion-Submandibular Arc  
NATO: Bitracion-Submandibular Arc  
USN: Bitracion-Submandibular Arc

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-SUBMANDIBULAR ARC

Reference: USN

Subject sits. With the tape passing under the gonial angles of the jaw *†the obtuse angle at the back of the lower jaw formed by the intersection of the vertical and horizontal portions of the jaw†* and over the landmark indicating the juncture of the jaw and neck *†the junction in the midsagittal plane of the under surface of the jaw with the column of the neck†*, measure the surface distance from right tracion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tracion of the left ear.

N: 1549  
X: 31.22 cm; 12.29 in

*Bitracion-Submandibular Arc—USN (Continued)*

SD: 1.41 cm; 0.56 in  
V%: 4.53

**Similar Dimensions:**

**Equivalent:**

FAA: *Ear-Neck Arc*  
KOREA: *Bitracion-Submandibular Arc*  
NATO: *Bitracion-Submandibular Arc*  
USAF '50: *Bitracion-Submandibular Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**BITRACION-SUBNASALE ARC**

**Reference: KOREA**

Subject sits. With the tape passing across the face and just below the nose, measure the arc from the cartilaginous notch (tracion) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 264  
X: 28.92 cm; 11.38 in  
SD: 1.39 cm; 0.55 in  
V%: 4.79

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur de l'arc bitragus sous nasal*  
NATO: *Bitracion-Subnasale Arc*  
USAF '50: *Bitracion-Subnasale Arc*  
USN: *Bitracion-Subnasale Arc*

*Bitracion-Subnasale Arc—KOREA (Continued)*

Not Equivalent:

None

Indeterminable:

None

**BITRACION-SUBNASALE ARC**

**Reference: IATO**

Subject sits. With the tape passing across the face just below the nose, measure the surface distance from right tracion, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tracion of the left ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 28.43 cm; 11.19 in	28.64 cm; 11.28 in	29.06 cm; 11.44 in
SD: 1.09 cm; 0.43 in	1.03 cm; 0.41 in	1.03 cm; 0.41 in
V%: 3.83	3.60	3.53

**Similar Dimensions:**

Equivalent:

FRANCE '65: *Longueur de l'arc bitragus sous nasal*  
KOREA: *Bitracion-Subnasale Arc*  
USAF '50: *Bitracion-Subnasale Arc*  
USN: *Bitracion-Subnasale Arc*

Not Equivalent:

None

Indeterminable:

None

## BITRAGION-SUBNASALE ARC

Reference: USAF '50

Subject sits. With the tape passing across the face and just below the nose, measure the arc from the cartilaginous notch (tragon) just forward of the upper edge of the right ear hole to the corresponding notch in the left ear.

N: 4056  
 $\bar{X}$ : 29.08 cm; 11.45 in  
SD: 1.10 cm; 0.43 in  
V%: 3.78

### Similar Dimensions:

#### Equivalent:

FRANCE '65: *Longueur de l'arc bitragus sous nasal*  
KOREA: *Bitracion-Subnasale Arc*  
NATO: *Bitracion-Subnasale Arc*  
USN: *Bitracion-Subnasale Arc*

#### Not Equivalent:

None

#### Indeterminable:

None

## BITRAGION-SUBNASALE ARC

Reference: USN

Subject sits. With the tape passing across the face just below the nose, measure the surface distance from right tragon, the cartilaginous notch just forward of the upper edge of the right ear hole, to the corresponding tragon of the left ear.

N: 1549  
 $\bar{X}$ : 28.68 cm; 11.29 in  
SD: 1.06 cm; 0.42 in  
V%: 3.71

### Similar Dimensions:

#### Equivalent:

FRANCE '65: *Longueur de l'arc bitragus sous nasal*

*Bitragion-Subnasale Arc—USN (Continued)*

KOREA: *Bitragion-Subnasale Arc*  
NATO: *Bitragion-Subnasale Arc*  
USAF '50: *Bitragion-Subnasale Arc*

Not Equivalent:

None

Indeterminable:

None

**BI-TROCHANTERIC**

Reference: AAF

Knees together and at right angles, trunk erect. Maximum lateral diameter of buttocks; light touch measurement. Anthropometer horizontal.

<i>Cadets</i>	<i>Gunners</i>
N: 2954	583
Median: 36.03 cm, 14.02 in	35.09 cm; 13.8 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-Trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum Below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-Trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*

*Bi-Trochanteric—AAF (Continued)*

VIETNAM: *Hip Breadth, Sitting*

WAC: *Hip Breadth*

WASP: *Bi-Trochanteric*

**Not Equivalent:**

HOOTON: *Hip Breadth*—[Subjects wore clothing.]

TUFTS: *Hip Breadth*—Taken on clothed, seated individuals

US ADULTS: *Seat Breadth*—[Subjects wore clothing.]

**Indeterminable:**

None

**See Also:**

*Hip Breadth, Standing*

**BI-TROCHANTERIC**

**Reference: ARMY ARMORED**

Knees together and at right angles, trunk erect. Maximum lateral diameter of buttocks; light touch measurement. Anthropometer horizontal.

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Trochanteric*

ARMY '66: *Hip Breadth, Sitting*

ARMY AVIATORS: *Seat Width, Sitting*

ARMY QM: *Hip Breadth*

FAA: *Hip Breadth, Sitting*

KOREA: *Hip Breadth, Sitting*

NATO: *Hip Breadth, Sitting*

NAVY RECRUITS: *Hip Breadth, Sitting*

RAF-RCAF: *Seat Breadth*

THAI: *Hip Breadth, Sitting*

TUFTS: *Bi-Trochanteric*

USAF '50: *Hip Breadth, Sitting*

USMC: *Hip Breadth, Sitting*

USN: *Hip Breadth, Sitting*

*Bi-Trochanteric—ARMY AMORED (Continued)*

VIETNAM: *Hip Breadth, Sitting*

WAC: *Hip Breadth*

WASP: *Bi-Trochanteric*

Not Equivalent:

HOOTON: *Hip Breadth*—[Subjects wore clothing.]

TUFTS: *Hip Breadth*—Taken on clothed, seated individuals

US ADULTS: *Scat Breadth*—[Subjects wore clothing.]

Indeterminable:

None

See Also:

*Hip Breadth, Standing*

**BI-TROCHANTERIC OR HIP BREADTH**

Reference: MONTAGU

(Anthropometer used as a sliding compass). From trochanterion, the most lateral point on the great trochanter, to trochanterion.

No Data Available

Similar Dimensions:

Equivalent:

BULGARIA: *Bitrochanteric Breadth*

FRANCE '65: *Diamètre bi-trochanter*

GENEVA: *Bi-Trochanteric Diameter*

NATO: *Bitrochanteric Breadth—Bone*

Not Equivalent:

None

Indeterminable:

None

*Bi-Trochanteric or Hip Breadth*—MONTAGU (Continued)

**See Also:**

*Bi-Iliac*  
*Hip Breadth*

**BI-TROCHANTERIC**

**Reference: TUFTS**

Knees together and at right angles, trunk erect. Maximum lateral diameter of buttocks; light touch measurement. Anthropometer horizontal.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-Trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-Trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum Below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Bi-Trochanteric*

**Not Equivalent:**

HOOTON: *Hip Breadth*—[Subjects wore clothing.]  
TUFTS: *Hip Breadth*—Taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[Subjects wore clothing.]

*Bi-Trochanteric—TUFTS (Continued)*

Indeterminable:

None

See Also:

*Hip Breadth, Standing*

**BI-TROCHANTERIC**

Reference: WASP

Knees together and at right angles, trunk erect. Maximum lateral diameter of buttocks; light touch measurement. Anthropometer horizontal.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 38.18 cm; 15.0 in	38.37 cm; 15.1 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

AAF: *Bi-Trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-Trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum Below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-Trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*

*Bi-Trochanteric—WASP (Continued)*

Not Equivalent:

HOOTON: *Hip Breadth*—[Subjects wore clothing.]  
TUFTS: *Hip Breadth*—Taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[Subjects wore clothing.]

Indeterminable:

None

See Also:

*Hip Breadth, Standing*

**BITROCHANTERIC BREADTH**

Reference: BULGARIA

Rectilinear distance between the two trochanters. Measured with a pelvimeter, the body being erect, with gathered legs and its weight distributed between the two legs.

<i>Men</i>	<i>Women</i>
N: 1661	1580
$\bar{X}$ : [32.03 cm; 12.61 in]	[32.01 cm; 12.60 in]
Est SD: [1.95 cm; 0.77 in]	[2.24 cm; 0.88 in]
Est V%: [6.08]	[7.00]

Similar Dimensions:

Equivalent:

FRANCE: '35: *Diamètre bi-trochanter*  
GENEVA: *Bi-Trochanteric Diameter*  
MONTAGU: *Bi-Trochanteric*  
NATO: *Bitrochanteric Breadth—Bone*

Not Equivalent:

None

Indeterminable:

None

*Bi-Trochanteric Breadth—BULGARIA (Continued)*

**See Also:**

*Bi-Iliac  
Hip Breadth*

**BITROCHANTERIC BREADTH—BONE**

**Reference: NATO**

Subject stands erect. Using the anthropometer with strong pressure to compress the flesh, measure the breadth between the two trochantaria at the level of the right trochanterion landmark †the top edge of the lateral protrusion of the femoral trochanter†.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 31.70 cm; 12.48 in	31.55 cm; 12.42 in	31.74 cm; 12.50 in
SD: 1.58 cm; 0.62 in	1.57 cm; 0.62 in	1.59 cm; 0.63 in
V%: 4.99	4.96	4.99

**Similar Dimensions:**

**Equivalent:**

BULGARIA: *Bitrochanteric Breadth*  
FRANCE: '65: *Diamètre bi-trochanter*  
GENEVA: *Bi-Trochanteric Diameter*  
MONTAGU: *Bi-Trochanteric*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Bi-Iliac  
Hip Breadth*

## BI-TROCHANTERIC DIAMETER

Reference: GENEVA

†The subject stands erect on a horizontal and resisting plane surface. . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal† Maximum distance between the external surfaces of the great trochanters. In making this measurement the superficial tissues are to be strongly compressed.

No Data Available

Similar Dimensions:

Equivalent:

BULGARIA: *Bitrochanteric Breadth*  
FRANCE: '65: *Diamètre bi-trochanter*  
MONTAGU: *Bi-Trochanteric*  
NATO: *Bitrochanteric Breadth—Bone*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Bi-Iliac*  
*Hip Breadth*

## BIZYGOMATIC

Reference: ARMY QM

The maximum breadth in a horizontal plane across the zygomatic arches at zygion †the most lateral point on the zygomatic arch†, taken with light contact.

N: 24389  
 $\bar{X}$ : 13.90 cm; 5.47 in  
SD: 0.60 cm; 0.24 in  
V%: [4.32]

*Bizygomatic—ARMY QM (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HEDLIČKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

**Not Equivalent:**

None

**Indeterminable:**

None

**BIZYGOMATIC**

**Reference: WAC**

†Subject sat erect with eyes on an imaginary horizon† Measurement taken from left to right zygion †The most lateral point on the zygomatic arch†.

N: 8428  
 $\bar{X}$ : 13.08 cm; 5.15 in  
SD: 0.54 cm; 0.21 in  
V%: [4.13]

*Bizygomatic—W/AC (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*

**Not Equivalent:**

None

**Indeterminable:**

None

**BIZYGOMATIC BREADTH**

**Reference: COMAS**

†With subject in sitting position† zygion †the most laterally projecting point in the zygomatic arches† to zygion. (Spreading caliper).

No Data Available.

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Face Breadth (Bizygomatic Breadth)*

*Bizygomatic Breadth—COMAS (Continued)*

ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Joehbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC BREADTH**

**Reference: MONTAGU**

(Spreading Caliper). The distance between the most laterally situated points on the zygomatic arches (the zygia . . .).

No Data Available

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*

*Bizygomatic Breadth—MONTAGU (Continued)*

HRDLIČKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MÁRTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC DIAMETER**

Reference: JAPAN

Holding the spreading caliper near its tips, measure the maximum horizontal breadth of the face across the most laterally projecting bones of the cheek (zygomatic arches).

N: 176  
 $\bar{X}$ : 14.30 cm; 5.63 in  
SD: 0.63 cm; 0.25 in  
V%: 4.40

Similar Dimensions:

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*

*Bizygomatic Diameter—JAPAN (Continued)*

HRDLICKA: *Face Breadth*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC DIAMETER**

**Reference: KOREA**

Holding the spreading caliper near its tips, measure the maximum horizontal breadth of the face across the most laterally projecting bones of the cheek (zygomatic arches).

N: 264  
 $\bar{X}$ : 13.84 cm; 5.45 in  
SD: 0.73 cm; 0.29 in  
V%: 5.29

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*

*Bizygomatic Diameter—KOREA (Continued)*

HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC DIAMETER**

**Reference: NATO**

Subject sits. Holding the spreading caliper near the tips, measure the maximum horizontal breadth of the face across the zygomatic arches, the most laterally projecting portions of the temporal bones.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 515	1084	1358
$\bar{X}$ : 14.22 cm; 5.60 in	14.18 cm; 5.58 in	14.31 cm; 5.63 in
SD: 0.54 cm; 0.21 in	0.53 cm; 0.21 in	0.51 cm; 0.20 in
V%: 3.81	3.73	3.58

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*

*Bizygomatic Diameter--NATO (Continued)*

COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLÍČKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC DIAMETER**

**Reference: NORWAY**

This is the straight-line distance between both zygia, i.e., the most protruding point on the arch of the cheekbone.

N: 5765  
 $\bar{X}$ : 13.84 cm; 5.45 in  
SD: 0.51 cm; 0.20 in  
V%: 3.69

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*

*Bizygomatic Diameter—NORWAY (Continued)*

ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC DIAMETER**

**Reference: USAF '50**

Holding the spreading caliper near its tips, measure the maximum horizontal breadth of the face across the most laterally projecting bones of the cheek (zygomatic arches).

N: 4061  
 $\bar{X}$ : 14.09 cm; 5.55 in  
SD: 0.51 cm; 0.20 in  
V%: 3.61

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*

*Bizygomatic Diameter—USAF '50 (Continued)*

ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BIZYGOMATIC DIAMETER**

**Reference: USN**

Subject sits. Holding the spreading caliper near the tips, measure the maximum horizontal breadth of the face across the zygomatic arches, the most laterally projecting portions of the temporal bones.

N: 15.19  
X: 13.62 cm; 5.36 in  
SD: 0.71 cm; 0.28 in  
V%: 5.19

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*

*Bizygomatic Diameter—USN (Continued)*

ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**BREADTH [HEAD]**

**Reference: TUFTS**

Greatest horizontal breadth of head above the ear openings, wherever found. Points of calipers held in horizontal plane and moved about until maximum reading obtained. Moderate pressure.

No Data Available

**Similar Dimensions:**

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*

*Breadth [Head]—TUFTS (Continued)*

JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS-FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 2.

N: 211  
 $\bar{X}$ : 1.54 cm; 0.61 in  
SD: 0.10 cm; 0.04 in  
V%: 6.33

**Similar Dimensions:**

Equivalent:

HANDS—MALE: *Breadth [of] Distal Interphalangeal Joint—Digit 2*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 2

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 2.

N: 148  
 $\bar{X}$ : 1.84 cm; 0.72 in  
SD: 0.12 cm; 0.05 in  
V%: 6.44

### Similar Dimensions:

Equivalent:

HANDS—FEMALE: *Breadth [of] Distal Interphalangeal Joint—Digit 2*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 3

Reference: HANDS-FEMALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 3.

N: 211  
 $\bar{X}$ : 1.53 cm; 0.60 in  
SD: 0.09 cm; 0.04 in  
V%: 6.01

### Similar Dimensions:

Equivalent:

HANDS—MALE: *Breadth [of] Distal Interphalangeal Joint—Digit 3*

Not Equivalent:

None

Indeterminable:

None

### BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 3

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 3.

N: 148  
 $\bar{X}$ : 1.84 cm; 0.72 in  
SD: 0.12 cm; 0.05 in  
V%: 6.43

Similar Dimensions:

Equivalent:

HANDS—FEMALE: *Breadth [of] Distal Interphalangeal Joint—Digit 3*

Not Equivalent:

None

Indeterminable:

None

### BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 4

Reference: HANDS-FEMALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 4.

N: 211  
 $\bar{X}$ : 1.43 cm; 0.57 in  
SD: 0.09 cm; 0.03 in  
V%: 5.91

Similar Dimensions:

Equivalent:

HANDS—MALE: *Breadth [of] Distal Interphalangeal Joint—Digit 4*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 4

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 4.

N: 148  
 $\bar{X}$ : 1.72 cm; 0.68 in  
SD: 0.11 cm; 0.04 in  
V%: 6.41

Similar Dimensions:

Equivalent:

HANDS--FEMALE: *Breadth [of] Distal Interphalangeal Joint—Digit 4*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 5

Reference: HANDS-FEMALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 5.

N: 211  
 $\bar{X}$ : 1.31 cm; 0.52 in  
SD: 0.09 cm; 0.03 in  
V%: 6.58

Similar Dimensions:

Equivalent:

HANDS--MALE: *Breadth [of] Distal Interphalangeal Joint—Digit 5*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 5

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the distal interphalangeal joint of digit 5.

N: 148  
X: 1.57 cm; 0.62 in  
SD: 0.12 cm; 0.05 in  
V%: 7.51

Similar Dimensions:

Equivalent:

HANDS—FEMALE: *Breadth [of] Distal Interphalangeal Joint—Digit 5*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] INTERPHALANGEAL JOINT-DIGIT 1

Reference: HANDS-FEMALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the interphalangeal joint of digit 1.

N: 211  
X: 1.99 cm; 0.75 in  
SD: 0.12 cm; 0.05 in  
V%: 6.13

Similar Dimensions:

Equivalent:

BARTER: *Breadth of Proximal Knuckle of Digit 1*

HANDS—MALE: *Breadth [of] Interphalangeal Joint—Digit 1*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] INTERPHALANGEAL JOINT-DIGIT 1

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the interphalangeal joint of digit 1.

N: 148  
 $\bar{X}$ : 2.29 cm; 0.90 in  
SD: 0.13 cm; 0.05 in  
V%: 5.72

Similar Dimensions:

Equivalent:

BARTER: *Breadth of Proximal Knuckle of Digit 1*  
HANDS—FEMALE: *Breadth [of] Interphalangeal Joint—Digit 1*

Not Equivalent:

None

Indeterminable:

None

## BREADTH OF INSTEP

Reference: FOOT

Breadth of the sole in the plane of the junction of the foot and leg. In each case an estimate was made of the proportion of the total breadth which was in contact with the ground. [From photograph]

White	Negro
N: 5561	1200
$\bar{X}$ : 8.77 cm; 3.45 in	9.12 cm; 3.59 in
Est SD: [0.57 cm; 0.23 in]	[0.54 cm; 0.21 in]
Est V%: [6.50]	[5.92]

Similar Dimensions:

None

See Also:

*Foot Breadth*

## BREADTH OF PELVIS

Reference: HRDLIČKA

The maximum distance between the sides of the rim of the pelvis. . . . Branches of instrument are applied symmetrically to the sides of the rim of the pelvis, with sufficient pressure to feel bone resistance, and the measurement is read.

No Data Available

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-Iliac*  
ARMY ARMORED: *Bi-Iliac*  
ARMY QM: *Bi-Iliac*  
TUFTS: *Bi-Iliac*  
WASP: *Bi-Iliac*

#### Not Equivalent:

MARTIN: *Groesste Breite zwischen dem Darmbeinkaemmen*—[with slight pressure]

#### Indeterminable:

In the following references pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-Iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-Iliac or Pelvic Breadth*

#### See Also:

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth*

## BREADTH OF PROXIMAL KNUCKLE OF DIGIT 1

Reference: BARTER

The thumb is placed lightly on the edge of the table, volar side down. The transverse diameter of the proximal joint is measured with the sliding calipers in light contact with the skin.

N: 100  
 $\bar{X}$ : 2.38 cm; 0.94 in  
SD: 0.15 cm; 0.06 in  
V%: [6.3]

*Breadth of Proximal Knuckle of Digit 1—BARTER (Continued)*

**Similar Dimensions:**

**Equivalent:**

HANDS—FEMALE: *Breadth [of] Interphalangeal Joint—Digit 1*

HANDS—MALE: *Breadth [of] Interphalangeal Joint—Digit 1*

**Not Equivalent:**

None

**Indeterminable:**

None

**BREADTH OF THREE FORWARD TOES**

**Reference: FOOT**

The maximal breadth from the medial border of the great toe to the lateral border of the 3rd toe.

*White*

N: 5545

$\bar{X}$ : 6.97 cm; 2.74 in

Est. SD: [0.46 cm; 0.18 in]

Est. V%: [6.6]

*Negro*

1194

6.70 cm; 2.64 in

[0.46 cm; 0.18 in]

[6.9]

**Similar Dimensions:**

None

**BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS-FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 2.

N: 211

$\bar{X}$ : 1.82 cm; 0.72 in

SD: 0.10 cm; 0.04 in

V%: 5.66

**Similar Dimensions:**

**Equivalent:**

HANDS—MALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 2*

*Breadth [of] Proximal Interphalangeal Joint-Digit 2—HANDS-FEMALE (Continued)*

Not Equivalent:

None

Indeterminable:

None

**BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS-MALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 2.

N: 148  
 $\bar{X}$ : 2.15 cm; 0.84 in  
SD: 0.13 cm; 0.05 in  
V%: 5.97

**Similar Dimensions:**

Equivalent:

HANDS—FEMALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 2*

Not Equivalent:

None

Indeterminable:

None

**BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 3**

**Reference: HANDS-FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 3.

N: 211  
 $\bar{X}$ : 1.83 cm; 0.72 in

*Breadth [of] Proximal Interphalangeal Joint-Digit 3—HANDS-FEMALE (Continued)*

SD: 0.10 cm; 0.04 in  
V%: 5.18

**Similar Dimensions:**

**Equivalent:**

HANDS—MALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 3*  
KOREA: *Finger Diameter III*  
NATO: *Finger Diameter III*  
USAF '50: *Finger Diameter III*

**Not Equivalent:**

None

**Indeterminable:**

None

**BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 3**

**Reference: HANDS-MALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 3.

N: 148  
 $\bar{X}$ : 2.18 cm; 0.86 in  
SD: 0.14 cm; 0.05 in  
V%: 6.32

**Similar Dimensions:**

**Equivalent:**

HANDS—FEMALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 3*  
KOREA: *Finger Diameter III*  
NATO: *Finger Diameter III*  
USAF '50: *Finger Diameter III*

**Not Equivalent:**

None

**Indeterminable:**

None

## BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 4

Reference: HANDS-FEMALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 4.

N: 211  
 $\bar{X}$ : 1.69 cm; 0.67 in  
SD: 0.10 cm; 0.04 in  
V%: 5.80

Similar Dimensions:

Equivalent:

HANDS—MALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 4*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 4

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 4.

N: 148  
 $\bar{X}$ : 2.02 cm; 0.79 in  
SD: 0.13 cm; 0.05 in  
V%: 6.61

Similar Dimensions:

Equivalent:

HANDS—FEMALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 4*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 5

Reference: HANDS-FEMALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 5.

N: 211  
 $\bar{X}$ : 1.46 cm; 0.57 in  
SD: 0.09 cm; 0.03 in  
V%: 6.37

Similar Dimensions:

Equivalent:

HANDS—MALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 5*

Not Equivalent:

None

Indeterminable:

None

## BREADTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 5

Reference: HANDS-MALE

Subject's right hand is extended. With the sliding caliper, measure the maximum breadth . . . of the proximal interphalangeal joint of digit 5.

N: 148  
 $\bar{X}$ : 1.77 cm; 0.70 in  
SD: 0.14 cm; 0.06 in  
V%: 7.81

Similar Dimensions:

Equivalent:

HANDS—FEMALE: *Breadth [of] Proximal Interphalangeal Joint—Digit 5*

Not Equivalent:

None

Indeterminable:

None

## BREAST CIRCUMFERENCE

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon† The arms were raised while the tape was being adjusted and then lowered for the measurement. Measurer stood to rear of subject and assistant stood in front to adjust tape. Measurement taken horizontally with tape passing over both nipples. [Bra]

N: 8561  
 $\bar{X}$ : 89.11 cm; 35.08 in  
SD: 7.71 cm; 3.04 in  
V%: [8.65]

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

- AAF: *Chest Circumference* — neither expanded nor collapsed . . . during quiet breathing [Measured on men.]
- ARMY '66: *Chest Circumference*—maximum . . . during normal breathing [Measured on men.]
- ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—during normal breathing [Measured on men.]
- ARMY QM: *Chest Circumference*— [Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted [Measured on men.]
- BELGIUM: *Perimetre thoracique [Expiration]*—[exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Perimetre thoracique [Mean]*—[maximal and minimal . . . divided by two] [Measured on men.]
- BELGIUM: *Perimetre thoracique [Inspiration]*—[inhales as deeply as possible] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—[at pause] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position

*Breast Circumference—WAC (Continued)*

- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]* — maximum amount of air inhaled the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the arm pits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]* — just below the arm pits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the arm pits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]* — at the height of the fourth chondrosternal articulation . . . calm respiration, between inhalation and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* -- at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]* — maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference* — Maximum thoracic circumference . . . during normal breathing [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep inhalation ] [Measured on men.]

*Breast Circumference—W' AC (Continued)*

- FRANCE '55: *Périmètre thoracique [Mean]*—[at xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage . . . intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage . . . mean . . . of . . . inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—well up into axillary fossae . . . Mean reading during normal inspiration and expiration
- MONTAGU: *Mesosternal Chest Girth*—At the level of the mesosternale . . . mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—maximum . . . during normal breathing [Measured on men.]

*Breast Circumference—WAC (Continued)*

- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—average circumference . . . during normal breathing [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space† at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space† at maximal inspiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space† during tidal breathing [Measured on men.]
- TUFTS: *Chest Circumference*—during quiet breathing [Measured on men.]
- USAF '50: *Chest Circumference*—maximum . . . during normal breathing [Measured on men.]
- USMC: *Chest Circumference*—maximum . . . circumference . . . during normal breathing [Measured on men.]
- USN: *Chest Circumference*—maximum . . . during normal breathing [Measured on men.]
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing [Measured on men.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across front above the fullness of the breast . . . during normal breathing
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across front below the fullness of the breast . . . during normal breathing
- WASP: *Chest Circumference*—Maximum circumference
- WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . midpoint of respiration. [Subject wore a snug bandeaux.]
- WOMEN: *Bust Girth*—level . . . of . . . maximum girth . . . [Subject wore a snug bandeaux.]

**Indeterminable:**

In the reference dimension description the status of respiration is not described.

WAF RECRUITS: *Bust Circumference*

**See Also:**

*Anterior Bust Arc*

## BREITE DER MUNDSPALTE [BREADTH OF THE MOUTH]

Reference: MARTIN

Geradlinige Entfernung der beiden Chelia †*derjenige Punkt der Mundspalte, an welchem die Aussenraender der Ober- und Unterschleimhautlippe ineinander uebergehen*† voneinander. Gleitzirkel. Der Mund muss geschlossen und in Ruhelage sein.

[Straight line distance between both chelia †*that point of the mouth where the outer edges of the upper and lower lips joint*†. Sliding Caliper. The mouth must be closed and relaxed.]

No Data Available

### Similar Dimensions:

Equivalent:

HRDLICKA: *Mouth Breadth*

MONACO: *Largeur de la bouche*

Not Equivalent:

JAPAN: *Lip Length (Bichelion Diameter)* — between the corners of the mouth

KOREA: *Lip Length (Bichelion Diameter)* — between the corners of the mouth

MONTAGU: *Maximum Breadth of the Mouth* — maximum breadth of the mouth

NATO: *Lip Length* — maximum distance between the corners of the mouth

USAF '50: *Lip Length (Bichelion Diameter)* — maximum distance between the corners of the mouth

USN: *Lip Length (Bichelion Diameter)* — maximum distance between the corners of the mouth

TUFTS: *Mouth Breadth* — to edge of lip juncture, not necessarily to edge of membrane

Indeterminable:

None

See Also:

*Lip Length, Smiling*

## BREITE DER NASE [NOSE BREADTH]

Reference: MARTIN

Geradlinige Entfernung der beiden Alaria, d. h. der Punkte der groessten seitlichen Ausladung der beiden Nasenfluegel, voneinander. Gleitzirkel.

[Straight line distance between both ala, that is between the points of the greatest lateral protrusion of both nasal wings. Sliding Caliper.]

No Data Available

*Breite der Nase [Nose Breadth]--MARTIN (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Nose Breadth*  
COMAS: *Nasal Breadth*  
FRANCE '65: *Largeur du nez*  
HRDLICKA: *Nose Breadth*  
JAPAN: *Nose Breadth*  
KOREA: *Nose Breadth*  
MONACO: *Largeur du nez*  
MONTAGU: *Maximum Physiognomic Nasal Breadth*  
NATO: *Nose Breadth*  
USAF '50: *Nose Breadth*  
USN: *Nose Breadth*  
WAC: *Nose Breadth*

**Not Equivalent:**

None

**Indeterminable:**

None

**BREITE DER RECHTEN HAND [BREADTH OF THE RIGHT HAND]**

**Reference: MARTIN**

Geradlinige Entfernung des Metacarpale radiale †der am meisten medial vorspringende Punkt des Köpfchens des os metacarpale II† vom Metacarpale ulnare †der am meisten lateral vorspringende Punkt des Köpfchens des os metacarpale V† bei gestreckten Fingern ueber dem Handrücken gemessen. Stangen- oder Gleitzirkel.

[Straight line distance across the back of the hand between radial metacarpale †the most medial point on the head of metacarpal II† and ulnar metacarpale †the most lateral point on the head of metacarpal V† with outstretched fingers. Beam Caliper or Sliding Caliper.]

No Data Available

**Similar Dimensions:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*

*Breite der rechten Hand [Breadth of the Right Hand]—MARTIN (Continued)*

ARMY QM: *Hand Breadth*

BARTER: *Hand Breadth at Metacarpale 2*

FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*

HANDS-FEMALE: *Hand Breadth*

HANDS-MALE: *Hand Breadth*

JAPAN: *Hand Breadth*

KOREA: *Hand Breadth*

MONTAGU: *Hand Breadth*

NATO: *Hand Breadth at Metacarpale*

NAVY RECRUITS: *Hand Breadth*

THAI: *Hand Breadth*

USAF '50: *Hand Breadth at Metacarpale*

USMC: *Hand Breadth*

USN: *Hand Breadth*

VIETNAM: *Hand Breadth*

WAC: *Hand Breadth*

WAF RECRUITS: *Hand Breadth*

WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width*—maximum width of the palm in front of the thumb

FRANCE '65: *Largeur de la paume*—[the widest points of the inner and outer edges of the palm]

HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

**BREITE DES BELASTETEN RECHTEN FUSSES  
[BREADTH OF THE RIGHT FOOT]**

**Reference: MARTIN**

Ceradlinige Entfernung des Metatarsale mediale vom Metatarsale laterale bei belastetem Fuss quer ueber den Fussruecken gemessen. Stangenzirkel. Stets ueber die distalen Enden der Metatarsalia zu messen, nicht an der vorragendsten Stelle der Seitenkontur, da diese wesentlich weiter nach hinten liegen kann.

*Breite des belasteten rechten Fusses [Breadth of the Right Foot]—MARTIN (Continued)*

[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot, measured diagonally on top of the foot. Broken Anthropometer. Always to be measured between the distal ends of the metatarsals, but not at the most protruding part of the lateral contour because this may be located considerably farther backward.]

No Data Available

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Foot Breadth*—Weight even on both feet

ARMY '66: *Ball of Foot Breadth*—weight evenly distributed on both feet

ARMY ARMORED: *Foot Breadth*—Weight even on both feet

ARMY AVIATORS: *Foot Breadth*—maximum width

ARMY QM: *Foot Breadth*—weight evenly distributed

AUSTRALIA: *Foot Width*—greatest measurement across the ball of the foot

FOOT: *Foot Breadth (Diagonal)*—body weight was equally distributed

FOOT: *Foot Breadth (Horizontal)*—body weight was equally distributed

FRANCE '65: *Largeur du pied*—[body weight distributed equally]

HRDLÍČKA: *Foot Breadth*—[Illustration indicates that this dimension was measured perpendicular to the longitudinal axis of the foot.]

KOREA: *Foot Breadth*—weight equally distributed on both feet

MONTAGU: *Foot Breadth*—[Subject standing erect as for MONTAGU: *Foot Length*.]

MORANT: *Diagonal Foot Breadth*—body weight roughly supported equally by the two feet

NATO: *Foot Breadth*—weight equally distributed on both feet

NAVY RECRUITS: *Ball of Foot Breadth*—weight evenly distributed on both feet

THAI: *Foot Breadth*—Weight Equally Distributed on Both Feet

USAF '50: *Foot Breadth*—weight equally distributed on both feet

USMC: *Ball of Foot Breadth*—weight evenly distributed on both feet

USN: *Foot Breadth*—weight equally distributed on both feet

VIETNAM: *Foot Breadth*—Weight Equally Distributed on Both Feet

WAF RECRUITS: *Foot Width*—weight equally distributed on both feet

WASP: *Foot Breadth*—Weight even on both feet

*Breite des belasteten rechten Fusses [Breadth of the Right Foot]*—MARTIN (Continued)

Indeterminable:

FAA: *Foot Breadth*—[Distribution of weight is not specified.]

WAC: *Foot Breadth*—[Orientation of the anthropometer relative to the foot is not specified.]

See Also:

*Breadth of Instep*

**BREITE ZWISCHEN DEN AKROMIEN [BIACROMIAL DIAMETER]**

Reference: MARTIN

Geradlinige Entfernung der beiden Akromien †*derjenige Punkt des Seitenrandes des Processus acromialis des Schulterblattes, der bei aufrechter Koerperhaltung und haengendem Arm am meisten seitlich gelegen ist* † voneinander. Stangenzirkel. Man achte darauf, dass das zu messende Individuum die Schultern streckt, d. h. nicht nach vorn senkt, wodurch das Mass zu klein wuerde.

[Straight line distance between both acromions †*that point on the lateral edge of the acromial process of the scapula which is located most laterally if the posture is erect and the arm is hanging* †. Broken anthropometer. Make sure that the subject straightens his shoulders, that is, without slouching forward, as this would shorten the measurement.]

No Data Available

Similar Dimensions:

Equivalent:

AAF: *Biacromial*

ARMY ARMORED: *Biacromial*

COMAS: *Bi-Acromial Breadth*

FRANCE '65: *Diametre bi-acromial*

MONTAGU: *Bi-Acromial Breadth*

THOUSAND AVIATORS: *Biacromial Diameter*

WASP: *Biacromial*

Not Equivalent:

GENEVA: *Bi-Acromial Diameter*—between the 2 acromial points †*superior and external border of the acromion process*

**Breite zwischen den Akromien [Biacromial Diameter]—MARTIN (Continued)**

**JAPAN:** *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone

**KOREA:** *Biacromial Diameter*—(acromion to acromion) †highest point on the lateral edge of the shoulder bone

**NATO:** *Biacromial Diameter*—between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine

**USAF '50:** *Biacromial Diameter*—(acromion to acromion) †the highest point of the lateral edge of the shoulder bone

Indeterminable:

**BULGARIA:** *Biacromial Breadth* — [Acromion not defined]

See Also:

*Bilateral Breadth*

**BREITE ZWISCHEN DEN BRUSTWARZEN [INTERNIPPLE DISTANCE]**

Reference: MARTIN

Geradlinige Entfernung der beiden Thelia †Mittelpunkt der Brustwarzen † voneinander. Stangenzirkel.

[Straight line distance between both thelia †centerpoint of the nipple † Beam caliper.]

No Data Available

Similar Dimensions:

Equivalent:

**GENEVA:** *Bi-mammillary Diameter*

**WAF RECRUITS:** *Internipple*

**WAC:** *Nipple-Nipple*

Not Equivalent:

None

Indeterminable:

None

## BREITE ZWISCHEN DEN INNEREN AUGENWINKELN [INTEROCULAR DIAMETER]

Reference: MARTIN

Geradlinige Entfernung der beiden inneren Augenwinkel (Entokanthia †*derjenige Punkt an der medialen Seite des Auges, an welchem der obere und untere Lidrand zusammentreffen*†) voneinander bei offener Lidspalte. Gleitzirkel.

[Straight line distance between both inner canthia (endocanthia †*that point on the median side of the eye, where the upper and lower edges of the eyelid meet*†) with the eyelids open. Sliding Caliper.]

No Data Available

Similar Dimensions:

Equivalent:

ARMY QM: *Interocular*  
KOREA: *Interocular Diameter*  
MONACO: *Larguer bipalpébrale interne*  
MONTAGU: *Inter-Canthic Diameter*  
NATO: *Interocular Diameter*  
USAF '50: *Interocular Diameter*  
USN: *Interocular Diameter*  
WAC: *Interocular*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Interpupillary Distance*

## BREITE ZWISCHEN DEN VORDEREN OBEREN DARMBEINSTACHELN [BI-SPINAL DIAMETER]

Reference: MARTIN

Geradlinige Entfernung der beiden Iliospatialia ant. †*der am meisten abwärts gerichtete Punkt der spina iliaca ant. sup.*† voneinander. Stangen- oder Tasterzirkel.

*Breite zwischen den vorderen oberen Darmbeinstacheln*  
[Bi-Spinal Diameter]—MARTIN (Continued)

[Straight line distance between both anterior iliospinale (the most inferior point of the anterior superior iliac spine). Beam Caliper or Spreading Caliper.]

No Data Available

**Similar Dimensions:**

**Equivalent:**

GENEVA: *Bi-Spinal Diameter*  
THOUSAND AVIATORS: *Bi-Iliac Diameter*  
WAC: *Bi-Iliac*

**Not Equivalent:**

None

**See Also:**

*Bi-Trochanteric Breadth—Bone*  
*Breadth of Pelvis*  
*Hip Breadth*

## BUST CIRCUMFERENCE

**Reference: WAF RECRUITS**

Subject stands. Her arms are raised and the tape is placed in a horizontal position at the level of the nipples. The arms are then lowered over the tape. Record bust circumference at the maximum dimension during normal breathing. [Bra]

N: 851  
 $\bar{X}$ : 85.59 cm; 33.70 in  
SD: 5.15 cm; 2.02 in  
V%: 6.01

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

*Bust Circumference—W'AF RECRUITS (Continued)*

- ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—during normal breathing [Measured on men.]
- ARMY QM: *Chest Circumference*—[Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]* — [at pause] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]* — maximum amount of air inhaled [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]* — maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the arm pits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]* — just below the arm pits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]* — just below the arm pits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation

*Bust Circumference—W/AF RECRUITS (Continued)*

- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women] — at the height of the fourth chond-external articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—calm respiration, between inspiration and exhalation [Measured on men.]
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men]—maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration] — at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation] — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation] — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference . . . during normal breathing [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire* — [calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée* — [forced inspiration . . . tape passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage . . . intermediate stage
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage . . . mean . . . of . . . inspiration and expiration
- JAPAN: *Chest Circumference*—[Measured on men.]
- KOREA: *Chest Circumference*—[Measured on men.]

*Bust Circumference--WAF RECRUITS (Continued)*

MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]

MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]

MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]

MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]

MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]

MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing . . . posture . . . relaxed]

MONTAGU: *Axillary Chest Girth*—well up into axillary fossae. Mean reading . . . during normal inspiration and expiration

MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration

NATO: *Chest Circumference*—[Measured on men.]

NAVY RECRUITS: *Chest Circumference*—[Measured on men.]

THAI: *Chest Circumference*—average circumference . . . during normal breathing [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space† at maximal expiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space† at maximal inspiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space† during tidal breathing [Measured on men.]

TUFTS: *Chest Circumference*—during quiet breathing [Measured on men.]

USAF '50: *Chest Circumference* — [Measured on men.]

USMC: *Chest Circumference*—[Measured on men.]

USN: *Chest Circumference*—[Measured on men.]

VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing [Measured on men.]

***Bust Circumference—WAF RECRUITS (Continued)***

WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing

WASP: *Chest Circumference*—Maximum circumference

WOMEN: *Bust Circumference* — Maximum girth . . . [Subject wore a snug bandeaux.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

**Indeterminable:**

In the reference dimension the status of respiration is described.

WAC: *Breast Circumference*

**See Also:**

*Anterior Bust Arc*

**BUST GIRTH**

**Reference: WOMEN**

Tape. . . . The subject's position was her normal, erect posture with feet together. The tape was passed around the chest so that the upper border was at the level indicated for the measurement of the maximum girth *(average height . . . at which it appeared that the girth would be the greatest)*† and the zero point was at the center front. The anterior and posterior arcs of the girth lay in the same horizontal plane. The girth was measured without constriction of the musculature and mammary glands and the reading was made at the midpoint of respiration. [Subject wore a snug bandeaux.]

N: 10042

$\bar{X}$ : 90.47 cm; 35.62 in

SD: 9.83 cm; 3.87 in

V%: 10.9

**Similar Dimensions:**

Equivalent:

None

*Bust Girth—WOMEN (Continued)*

Not Equivalent:

- AAF: *Chest Circumference*—just above nipples [Measured on men.]
- ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- ARMY ARMORED: *Chest Circumference*—just above nipples [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—at nipple level [Measured on men.]
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]
- AUSTRALIA: [*Chest Circumference*]—well up under the armpits [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the arm pits
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the arm pits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the arm pits . . . at full inhalation

*Bust Girth—WOMEN (Continued)*

- COMAS: *Chest Circumference* [Fourth Rib, Calm Respiration, Women]—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women] — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women] — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—at the nipples [Measured on men.]
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men] — at the nipples . . . minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men] — at the nipples . . . maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration] — at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation] — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation] — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep inhalation ] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at xiphoid process . . . after deep inhalation ] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at xiphoid process . . . minimal and maximal . . . divided by two ] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire* — [calm respiration . . . tape . . . passes around above the two nipples ] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*— [forced inspiration . . . tape . . . passes around above the two nipples ] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process ] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée* — [forced inspiration . . . tape . . . passed around level with the xiphoid process ] [Measured on men.]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage

*Bust Girth—WOMEN (Continued)*

JAPAN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]

KOREA: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]

MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]

MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]

MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]

MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]

MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]

MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]

MONTAGU: *Axillary Chest Girth*—well up into axillary fossae

MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale

NATO: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]

NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

THAI: *Chest Circumference*—at level of nipples [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space† at maximal expiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space† at maximal inspiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space [Measured on men.]

TUFTS: *Chest Circumference*—just above nipples [Measured on men.]

USAF '50: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]

USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

***Bust Girth—WOMEN (Continued)***

USN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing  
[Measured on men.]

VIETNAM: *Chest Circumference*—nipples [Measured on men.]

WAC: *Chest Circumference*—horizontally just below the breasts . . . [Bra]

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the  
nipples . . . at the maximum dimension during normal breathing. [Bra]

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of  
the nipples . . . across front above the fullness of the breasts . . . [Bra]

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level  
of the nipples . . . across front below the fullness of the breasts . . . [Bra]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye

**Indeterminable:**

In the following, status of respiration is not specified.

WASP: *Chest Circumference*

**BUST HEIGHT**

**Reference: WOMEN**

Anthropometer. †The subject stood erect.† The anthropometer was held vertical in the right hand and the moving arm lowered with the left until the brass point was on the landmark †the level at which it appeared that the girth would be the greatest†. [The subject wore a snug bandeaux.]

N: 10042

$\bar{X}$ : 114.43 cm; 45.05 in

SD: 5.87 cm; 2.31 in

V%: 5.1

**Similar Dimensions:**

None

**See Also:**

*Nipple Height*

## BUTTOCK CIRCUMFERENCE

Reference: JAPAN

Subject stands erect. Holding the tape in a horizontal plane at the level of the greatest rearward protrusion of the buttocks, measure the circumference around the hip region.

N: 239  
 $\bar{X}$ : 89.28 cm; 35.15 in  
SD: 3.90 cm; 1.54 in  
V%: 4.40

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Hip Circumference*  
ARMY AVIATORS: *Seat Circumference*  
FAA: *Buttocks Circumference*  
KOREA: *Buttock Circumference*  
NATO: *Buttock Circumference*  
NAVY RECRUITS: *Hip Circumference*  
THAI: *Hip Circumference*  
USAF '50: *Buttock Circumference*  
USMC: *Hip Circumference*  
USN: *Buttock Circumference*  
VIETNAM: *Hip Circumference*  
WAF RECRUITS: *Buttocks Circumference*

#### Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Seat Circumference*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Pubic Circumference - Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions

*Buttock Circumference—JAPAN (Continued)*

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*— at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**BUTTOCK CIRCUMFERENCE**

Reference: KOREA

Subject stands erect. Holding the tape in a horizontal plane at the level of the greatest rearward protrusion of the buttocks, measure the circumference around the hip region.

N: 264

$\bar{X}$ : 89.24 cm; 34.28 in

SD: 4.87 cm; 1.91 in

V%: 5.42

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Circumference*

ARMY AVIATORS: *Seat Circumference*

FAA: *Buttocks Circumference*

JAPAN: *Buttock Circumference*

NATO: *Buttock Circumference*

NAVY RECRUITS: *Hip Circumference*

THAI: *Hip Circumference*

USAF '50: *Buttock Circumference*

USMC: *Hip Circumference*

USN: *Buttock Circumference*

VIETNAM: *Hip Circumference*

WAF RECRUITS: *Buttocks Circumference*

Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

*Buttock Circumference—KOREA (Continued)*

AUSTRALIA: *Seat Circumference*—around the largest part of the hips

FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]

MONTAGU: *Maximum Gluteo-Pubic Circumference - Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

WAC: *Hip Circumference*—over the two trochanterions

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*— at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

## BUTTOCK CIRCUMFERENCE

Reference: NATO

Subject stands erect. Holding the tape in a horizontal plane, measure the circumference around the hip region at the level of the buttock circumference landmark †maximum posterior protrusion of the buttock†.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 91.79 cm; 36.14 in	93.93 cm; 36.98 in	95.10 cm; 37.44 in
SD: 5.14 cm; 2.02 in	4.61 cm; 1.81 in	4.94 cm; 1.94 in
V%: 5.60	4.90	5.19

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Circumference*

ARMY AVIATORS: *Seat Circumference*

FAA: *Buttocks Circumference*

JAPAN: *Buttock Circumference*

KOREA: *Buttock Circumference*

NAVY RECRUITS: *Hip Circumference*

THAI: *Hip Circumference*

*Buttock Circumference—NATO (Continued)*

USAF '50: *Buttock Circumference*

USMC: *Hip Circumference*

USN: *Buttock Circumference*

VIETNAM: *Hip Circumference*

WAF RECRUITS: *Buttocks Circumference*

Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

AUSTRALIA: *Seat Circumference*—around the largest part of the hips

FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]

MONTAGU: *Maximum Gluteo-Pubic Circumference - Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

WAC: *Hip Circumference*—over the two trochanterions

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*— at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**BUTTOCK CIRCUMFERENCE**

**Reference: USAF '50**

Subject stands erect. Holding the tape in a horizontal plane at the level of the greatest rearward protrusion of the buttocks, measure the circumference around the hip region.

N: 4049

$\bar{X}$ : 95.97 cm; 37.78 in

SD: 5.81 cm; 2.29 in

V%: 6.05

*Buttock Circumference—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hip Circumference*  
ARMY AVIATORS: *Seat Circumference*  
FAA: *Buttocks Circumference*  
JAPAN: *Buttock Circumference*  
KOREA: *Buttock Circumference*  
NATO: *Buttock Circumference*  
NAVY RECRUITS: *Hip Circumference*  
THAI: *Hip Circumference*  
USMC: *Hip Circumference*  
USN: *Buttock Circumference*  
VIETNAM: *Hip Circumference*  
WAF RECRUITS: *Buttocks Circumference*

**Not Equivalent:**

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Seat Circumference*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Pubic Circumference - Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions  
WASP: *Hip Circumference*—Maximum . . . around buttocks  
WOMEN: *Hip Girth*— at the most prominent bony point in the region of the trochanter

**Indeterminable:**

None

**See Also:**

*Buttock Circumference, Sitting*

## BUTTOCK CIRCUMFERENCE

Reference: USN

Subject stands erect. Holding the tape in a horizontal plane, measure the circumference around the hip region at the level of the buttock circumference landmark †maximum posterior protrusion of the buttock†.

N: 1549  
 $\bar{X}$ : 98.03 cm; 38.60 in  
SD: 5.07 cm; 2.00 in  
V%: 5.17

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Hip Circumference*  
ARMY AVIATORS: *Seat Circumference*  
FAA: *Buttocks Circumference*  
JAPAN: *Buttock Circumference*  
KOREA: *Buttock Circumference*  
NATO: *Buttock Circumference*  
NAVY RECRUITS: *Hip Circumference*  
THAI: *Hip Circumference*  
USAF '50: *Buttock Circumference*  
USMC: *Hip Circumference*  
VIETNAM: *Hip Circumference*  
WAF RECRUITS: *Buttocks Circumference*

#### Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Seat Circumference*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Pubic Circumference - Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions  
WASP: *Hip Circumference*—Maximum . . . around buttocks  
WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

*Buttock Circumference—USN (Continued)*

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**BUTTOCK CIRCUMFERENCE, SITTING**

Reference: JAPAN

Subject sits erect with his knees bent at about right angles. With the tape passing just under the buttocks where they touch the sitting surface and brought up at about a 45-degree angle across the lap in the furrow between the torso and legs, measure the circumference of the buttocks.

N: 184  
 $\bar{X}$ : 97.47 cm; 38.37 in  
SD: 6.64 cm; 2.61 in  
V%: 4.80

Similar Dimensions:

Equivalent:

KOREA: *Buttock Circumference, Sitting*  
NATO: *Buttock Circumference, Sitting*  
USAF '50: *Buttock Circumference, Sitting*  
USN: *Buttock Circumference, Sitting*  
WAF RECRUITS: *Hip Circumference (Sitting)*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hip Circumference*

## BUTTOCK CIRCUMFERENCE, SITTING

### Reference: KOREA

Subject sits erect with his knees bent at about right angles. With the tape passing just under the buttocks where they touch the sitting surface and brought up at about a 45-degree angle across the lap in the furrow between the torso and legs, measure the circumference of the buttocks.

N: 264  
 $\bar{X}$ : 95.91 cm; 37.76 in  
SD: 7.15 cm; 2.81 in  
V%: 7.45

### Similar Dimensions:

#### Equivalent:

JAPAN: *Buttock Circumference, Sitting*  
NATO: *Buttock Circumference, Sitting*  
USAF '50: *Buttock Circumference, Sitting*  
USN: *Buttock Circumference, Sitting*  
WAF RECRUITS: *Hip Circumference (Sitting)*

#### Not Equivalent:

None

#### Indeterminable:

None

### See Also:

*Hip Circumference*

## BUTTOCK CIRCUMFERENCE, SITTING

### Reference: NATO

Subject sits erect with his knees bent at about right angles. With the tape passing just under the buttocks where they touch the sitting surface, and brought up at about a 45 degree angle across the lap in the furrow between the torso and legs, measure the circumference of the seated buttocks.

*Buttock Circumference—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1048	1358
$\bar{X}$ : 96.02 cm; 37.80 in	99.30 cm; 39.09 in	101.76 cm; 40.06 in
SD: 6.09 cm; 2.40 in	5.07 cm; 2.00 in	6.19 cm; 2.44 in
V%: 6.34	5.10	6.08

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Buttock Circumference, Sitting*  
KOREA: *Buttock Circumference, Sitting*  
USAF '50: *Buttock Circumference, Sitting*  
USN: *Buttock Circumference, Sitting*  
WAF RECRUITS: *Hip Circumference (Sitting)*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hip Circumference*

**BUTTOCK CIRCUMFERENCE, SITTING**

**Reference: USAF '50**

Subject sits erect with his knees bent at about right angles. With the tape passing just under the buttocks where they touch the sitting surface and brought up at about a 45-degree angle across the lap in the furrow between the torso and legs, measure the circumference of the buttocks.

N: 4062  
 $\bar{X}$ : 106.02 cm; 41.74 in  
SD: 7.16 cm; 2.82 in  
V%: 6.75

*Buttock Circumference, Sitting—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Buttock Circumference, Sitting*  
KOREA: *Buttock Circumference, Sitting*  
NATO: *Buttock Circumference, Sitting*  
USN: *Buttock Circumference, Sitting*  
WAF RECRUITS: *Hip Circumference (Sitting)*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hip Circumference*

**BUTTOCK CIRCUMFERENCE, SITTING**

**Reference: USN**

Subject sits erect with his knees bent at about right angles. With the tape passing just under the buttocks where they touch the sitting surface, and brought up at about a 45-degree angle across the lap in the furrow between the torso and legs, measure the circumference of the seated buttocks.

N: 1549  
 $\bar{X}$ : 106.44 cm; 41.90 in  
SD: 5.83 cm; 2.29 in  
V%: 5.47

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Buttock Circumference, Sitting*  
KOREA: *Buttock Circumference, Sitting*  
NATO: *Buttock Circumference, Sitting*  
USAF '50: *Buttock Circumference, Sitting*  
WAF RECRUITS: *Hip Circumference (Sitting)*

*Buttock Circumference, Sitting—USN (Continued)*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hip Circumference*

**BUTTOCK DEPTH**

Reference: KOREA

Subject stands erect. Holding the anthropometer horizontally on the subject's right side, measure the depth of the body at the level of the maximum protrusion of the buttocks.

N: 264

$\bar{X}$ : 20.69 cm; 8.44 in

SD: 2.04 cm; 0.80 in

V%: 9.23

Similar Dimensions:

Equivalent:

FAA: *Buttocks Depth*

NATO: *Buttock Depth*

USAF '50: *Buttock Depth*

USN: *Buttock Depth*

Not Equivalent:

None

Indeterminable:

None

See Also:

*External Conjugate (Antero-Posterior) Diameter of the Pelvis*  
*Trunk Depth*

## BUTTOCK DEPTH

### Reference: NATO

Subject stands erect. Holding the anthropometer on the subject's right side, measure the horizontal depth of the buttocks at the level of the landmark indicating their maximum posterior protrusion.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 22.63 cm; 8.91 in	22.84 cm; 8.99 in	23.72 cm; 9.34 in
SD: 1.98 cm; 0.78 in	1.66 cm; 0.65 in	1.83 cm; 0.72 in
V%: 8.73	7.27	7.69

### Similar Dimensions:

#### Equivalent:

FAA: *Buttocks Depth*  
KOREA: *Buttock Depth*  
USAF '50: *Buttock Depth*  
USN: *Buttock Depth*

#### Not Equivalent:

None

#### Indeterminable:

None

### See Also:

*External Conjugate (Antero-Posterior) Diameter of the Pelvis*  
*Trunk Depth*

## BUTTOCK DEPTH

### Reference: USAF '50

Subject stands erect. Holding the anthropometer horizontally on the subject's right side, measure the depth of the body at the level of the maximum protrusion of the buttocks.

N: 4058  
 $\bar{X}$ : 22.37 cm; 8.81 in  
SD: 2.09 cm; 0.82 in  
V%: 9.34

*Buttock Depth—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

FAA: *Buttocks Depth*  
KOREA: *Buttock Depth*  
NATO: *Buttock Depth*  
USN: *Buttock Depth*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*External Conjugate (Antero-Posterior) Diameter of the Pelvis*  
*Trunk Depth*

**BUTTOCK DEPTH**

**Reference: USN**

Subject stands erect. Holding the anthropometer on the subject's right side, measure the horizontal depth of the buttocks at the level of the landmark indicating their maximum posterior protrusion.

N: 1549  
 $\bar{X}$ : 24.13 cm; 9.50 in  
SD: 1.87 cm; 0.74 in  
V%: 7.74

**Similar Dimensions:**

**Equivalent:**

FAA: *Buttocks Depth*  
KOREA: *Buttock Depth*  
NATO: *Buttock Depth*  
USAF '50: *Buttock Depth*

*Buttock Depth—USN (Continued)*

Not Equivalent:

None

Indeterminable:

None

**See Also:**

*External Conjugate (Antero-Posterior) Diameter of the Pelvis*  
*Trunk Depth*

## BUTTOCK HEIGHT

**Reference:** NATO

Subject stands erect. Using the anthropometer, measure the vertical distance from the standing surface to the buttock height landmark indicating the maximum posterior protrusion of the buttocks.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 84.67 cm; 33.33 in	84.91 cm; 33.43 in	86.55 cm; 34.07 in
SD: 3.91 cm; 1.54 in	3.97 cm; 1.56 in	4.40 cm; 1.73 in
V%: 4.61	4.68	5.08

**Similar Dimensions:**

None

**See Also:**

*Gluteal Furrow Height*

## BUTTOCK-KNEE

**Reference:** AAF

Right side. Trunk erect. Knees together and knee angle at right angle; thighs horizontal. Contact measurement, buttock to skin over patella (knee-cap).

<i>Cadets</i>	<i>Gunners</i>
N: 2954	582
Median: 59.93 cm; 23.6 in	59.77 cm; 23.1 in
SD: NDA	NDA
V%: NDA	NDA

*Buttock-Knee—AAF (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—' buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE**

**Reference: ARMY ARMORED**

Right side. Trunk erect. Knees together and knee angle at right angle; thighs horizontal. Contact measurement, buttock to skin over patella (knee-cap).

Reference cites AAF data for this dimension.

*Buttock-Knee—ARMY ARMORED (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh—from iliospinale to tibiale*  
INDIA: *Thigh [Length]—sits back [against board] . . . as "hard" as possible*  
RAF-RCAF: *Thigh Length—*buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length—from the most posterior protrusion of the sacral area*

**Indeterminable:**

None

**BUTTOCK-KNEE**

**Reference: ARMY QM**

†Subject sits on a table with adjustable foot rest. Subject sits erect with thighs just touching the table and knees at right angles. The foot rest is adjusted so that his feet just rest on it. The knees are together.† With anthropometer held parallel to the line of contact of the legs, the measurement is taken between the most posterior point on the buttock, below the hips, and the most anterior point on the patella. Contact.

*Buttock-Knee—ARMY QM (Continued)*

N: 24244  
 $\bar{X}$ : 59.44 cm; 23.40 in  
SD: 2.84 cm; 1.12 in  
V%: [4.78]

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE**

**Reference: TUFTS**

Right side. Trunk erect. Knees together and knee angle at right angle; thighs horizontal. Contact measurement, buttock to skin over patella (knee-cap).

No Data Available.

*Buttock-Knee—TUFTS (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
USAF '59: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE**

**Reference: USN**

Subject sits erect, his feet resting on a surface adjusted so that the knees are bent at about right angles. Using the anthropometer, measure the horizontal distance from the rearmost surface of the right buttock to the front surface of the kneecap.

N: 1549  
 $\bar{X}$ : 61.20 cm; 24.09 in  
SD: 2.54 cm; 1.00 in  
V%: 4.15

*Buttock-Knee—USN (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE**

**Reference: WAC**

†Subject sat erect with eyes on an imaginary horizon, with the lower leg vertical† with knees together. Anthropometer held to the left of the subject, parallel to the floor, and parallel to the line of contact between the thighs. Measurement taken from the most posterior point of the buttocks, below the hips, and the most anterior point on the patella.

No Data Available.

*Buttock-Knee—W/AC (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee Length*  
ARMY AVIATORS: *Buttock-Knee*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE**

**Reference: WASP**

Right side. Trunk erect. Knees together and knee angle at right angle; thighs horizontal. Contact measurement, buttock to skin over patella (knee-cap).

<i>Pilots</i>	<i>Nurses</i>
N: 477	152
$\bar{X}$ : 57.50 cm; 22.6 in	56.81 cm; 22.4 in
SD: NDA	NDA
V%: NDA	NDA

*Buttock-Knee—WASP (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fessc-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE LENGTH**

**Reference: ARMY '66**

Subject sits erect, with his feet resting on a surface adjusted so that his knees are bent at right angles. Buttock-knee length is measured as the horizontal distance from the back of the right buttock to the front of the right knee. An anthropometer is used.

N: 6682  
 $\bar{X}$ : 59.46 cm; 23.41 in  
SD: 2.84 cm; 1.12 in  
V%: 4.80

*Buttock-Knee Length—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh—from iliospinale to tibiale*  
INDIA: *Thigh [Length]—sits back [against board] . . . as "hard" as possible*  
RAF-RCAF: *Thigh Length—buttocks hard against the backboard*  
US ADULTS: *Buttock-Knee Length—from the most posterior protrusion of the sacral area*

**Indeterminable:**

None

**BUTTOCK-KNEE LENGTH**

**Reference: ARMY AVIATORS**

The distance from the back of the right buttock to the front of the knee cap, taken with the subject seated.

N: 500  
 $\bar{X}$ : 60.50 cm; 23.82 in  
SD: 2.74 cm; 1.08 in  
V%: [4.53]

*Buttock-Knee Length—ARMY AVIATORS (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the  
sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE LENGTH**

**Reference: KOREA**

Subject sits erect, his feet resting on a surface so that the knees are bent at about right angles. Using the anthropometer, measure the horizontal distance from the rearmost point of the right buttock to the front of the kneecap.

N: 264  
 $\bar{X}$ : 53.83 cm; 26.10 in [Sic] [Est. 21.19 in]  
SD: 2.17 cm; 0.86 in  
V%: 4.04

### *Buttock-Knee Length—KOREA (Continued)*

#### **Similar Dimensions:**

##### **Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

##### **Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

##### **Indeterminable:**

None

## **BUTTOCK-KNEE LENGTH**

#### **Reference: NATO**

Subject sits erect, his feet resting on a surface adjusted so that the knees are bent at about right angles. Using the anthropometer, measure the horizontal distance from the rearmost surface of the right buttock to the front surface of the kneecap.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
X: 56.99 cm; 22.44 in	57.41 cm; 22.60 in	58.23 cm; 22.93 in
SD: 2.38 cm; 0.94 in	2.43 cm; 0.96 in	2.60 cm; 1.02 in
V%: 4.18	4.22	4.47

*Buttock-Knee Length—NATO (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE LENGTH**

**Reference: NAVY RECRUITS**

Subject sits erect, with his feet resting on a surface adjusted so that his knees are bent at right angles. Buttock-knee length is measured as the horizontal distance from the back of the right buttock to the front of the right knee. An anthropometer is used.

N: 4095  
 $\bar{X}$ : 59.20 cm; 23.31 in  
SD: 2.74 cm; 1.08 in  
V%: 4.63

*Buttock-Knee Length—NAVY RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE LENGTH**

**Reference: THAI**

†Subject sitting erect on table or bench† With legs bent to form right angle at knee, measured as distance from rearmost projection of buttock to front of right kneecap.

N: 2950  
 $\bar{X}$ : 53.8 cm; 21.2 in  
SD: 2.5 cm; 1.0 in  
V%: 4.6

*Buttock-Knee Length—THAI (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

**BUTTOCK-KNEE LENGTH**

**Reference: US ADULTS**

†Examinee seated on a flat, horizontal board, with the knees at right angles, thighs horizontal, and popliteal areas lightly touching the seat surface† The examinee sat erect, knees together, hands in lap, popliteal fossae (hollows at the back of the knee) at the front edge of the sitting board. The measurement was made between the bars of the anthropometer, from the most posterior protrusion of the sacral area to the foremost edge of the patella.

*Buttock-Knee Length—US ADULTS (Continued)*

<i>Men</i>	<i>Women</i>
N: 3091	3581
$\bar{X}$ : 59.2 cm; 23.3 in	56.6 cm; 22.3 in
Est SD: [3.10 cm; 1.22 in]	[3.20 cm; 1.26 in]
Est V%: [19.1]	[18.0]

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

AAF: *Buttock-Knee*—Contact measurement, buttock to  
 ARMY '66: *Buttock-Knee Length*—from the back of the right buttock to the front of the right knee  
 ARMY ARMORED: *Buttock-Knee*—Contact measurement, buttock to  
 ARMY AVIATORS: *Buttock-Knee Length*—from the back of the right buttock  
 ARMY QM: *Buttock-Knee*—between the most posterior point on the buttock  
 BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
 FAA: *Buttocks-Knee Length*—from the most posterior point of the right buttock  
 FRANCE '65: *Distance fesse-genou*—[from the back of the buttock]  
 INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
 KOREA: *Buttock-Knee Length*—from the rearmost point of the right buttock  
 NATO: *Buttock-Knee Length*—from the rearmost surface of the right buttock  
 NAVY RECRUITS: *Buttock-Knee Length*—from the back of the right buttock to the front of the right knee  
 RAF-RCAF: *Thigh Length*—Buttocks hard against the back board.  
 THAI: *Buttock-Knee Length*—from rearmost projection of buttock  
 TUFTS: *Buttock-Knee*—Contact measurement, buttock to  
 USAF '50: *Buttock-Knee Length*—from the rearmost point of the right buttock  
 USMC: *Buttock-Knee Length*—from the back of the right buttock to the front of the right knee  
 USN: *Buttock-Knee*—from the rearmost surface to the right buttock  
 VIETNAM: *Buttock-Knee Length*—from rearmost projection of buttock  
 WAC: *Buttock-Knee*—from the most posterior point of the buttocks  
 WASP: *Buttock-Knee*—Contact measurement, buttock to

Indeterminable:

None

## BUTTOCK-KNEE LENGTH

Reference: USAF '50

Subject sits erect, his feet resting on a surface so that the knees are bent at about right angles. Using the anthropometer, measure the horizontal distance from the rearmost point of the right buttock to the front of the kneecap.

N: 4060  
 $\bar{X}$ : 60.00 cm; 23.62 in  
SD: 2.70 cm; 1.06 in  
V%: 4.50

### Similar Dimensions:

#### Equivalent:

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

#### Not Equivalent:

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

#### Indeterminable:

None

## BUTTOCK-KNEE LENGTH

### Reference: USMC

Subject sits erect, with his feet resting on a surface adjusted so that his knees are bent at right angles. Buttock-knee length is measured as the horizontal distance from the back of the right buttock to the front of the right knee. An anthropometer is used.

N: 2008  
X: 59.51 cm; 23.43 in  
SD: 2.71 cm; 1.07 in  
V%: 4.57

### Similar Dimensions:

#### Equivalent:

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

#### Not Equivalent:

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—its back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

#### Indeterminable:

None

## BUTTOCK-KNEE LENGTH

Reference: VIETNAM

†Subject sitting erect on table or bench† With legs bent to form right angle at knee, measured as distance from rearmost projection of buttock to front of right kneecap.

N: 2124  
X: 52.7 cm; 20.7 in  
SD: 2.7 cm; 1.1 in  
V%: 5.1

### Similar Dimensions:

#### Equivalent:

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FAA: *Buttocks-Knee Length*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

#### Not Equivalent:

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

#### Indeterminable:

None

## BUTTOCK-LEG LENGTH

### Reference: KOREA

Subject sits erect with his buttocks against the wall and his right leg extended as far as possible on the table. Touch the block against the base of the heel, and record the distance from the wall as indicated on the scale laid off on the table top.

N: 264  
 $\bar{X}$ : 101.04 cm; 39.78 in  
SD: 4.19 cm; 1.65 in  
V%: 4.14

### Similar Dimensions:

#### Equivalent:

ARMY AVIATORS: *Leg Length, Sitting*  
BELGIUM: *Longueur des jambes*  
FAA: *Buttocks-Leg Length*  
FRANCE '65: *Longueur utile du membre inférieur*  
INDIA: *Total Leg [Length]*  
RAF-RCAF: *Leg Length*  
TUFTS: *Leg Length*  
USAF '50: *Buttock-Leg Length*

#### Not Equivalent:

FRANCE '55: *Longueur de jambe*—[Shoes must be worn]

#### Indeterminable:

None

### See Also:

*Heel on Floor with Leg Extended*

## BUTTOCK-LEG LENGTH

### Reference: USAF '50

Subject sits erect with his buttocks against the wall and his right leg extended as far as possible on the table. Touch the block against the base of the heel, and record the distance from the wall as indicated on the scale laid off on the table top.

*Buttock-Knee Length—USAF '50 (Continued)*

N: 4060  
 $\bar{X}$ : 108.45 cm; 42.70 in  
SD: 5.18 cm; 2.04 in  
V%: 4.78

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Leg Length, Sitting*  
BELGIUM: *Longueur des jambes*  
FAA: *Buttocks-Leg Length*  
FRANCE '65: *Longueur utile du membre inférieur*  
INDIA: *Total Leg [Length]*  
KOREA: *Buttock-Leg Length*  
RAF-RCAF: *Leg Length*  
TUFTS: *Leg Length*

**Not Equivalent:**

FRANCE '55: *Longueur de jambe*—[Shoes must be worn]

**Indeterminable:**

None

**See Also:**

*Heel on Floor with Leg Extended*

**BUTTOCK-POPLITEAL LENGTH**

**Reference: ARMY '66**

Subject sits erect, with his feet resting on a surface adjusted so that his knees are bent at right angles. Buttock-popliteal length is measured as the horizontal distance from the back of the right buttock to the back of the right knee (popliteal area). An anthropometer is used.

N: 6682  
 $\bar{X}$ : 48.81 cm; 19.22 in  
SD: 2.51 cm; 0.99 in  
V%: 5.13

*Buttock-Popliteal Length—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

NATO: *Buttock-Popliteal Length*  
NAVY RECRUITS: *Buttock-Popliteal Length*  
THAI: *Buttock-Popliteal Length*  
US ADULTS: *Buttock-Popliteal Length*  
USMC: *Buttock-Popliteal Length*  
USN: *Buttock-Popliteal Length*  
VIETNAM: *Buttock-Popliteal Length*

**Not Equivalent:**

HOOTON: *Seat Length*—[Measurement not in plane of seat ]  
TUFTS: *Seat Length*—[Measurement not in plane of seat ]

**Indeterminable:**

None

**BUTTOCK-POPLITEAL LENGTH**

**Reference: NATO**

Subject sits erect, his feet resting on a surface adjusted so that the knees are bent at about right angles, and with the back of the calves in contact with the edge of the table. With the wooden block touching the rearmost surface of the buttocks, use the scale on the table surface to measure the horizontal distance from the most posterior protrusion of the right buttock to the back of the calf.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 47.46 cm; 18.69 in	47.31 cm; 18.63 in	47.96 cm; 18.88 in
SD: 2.58 cm; 1.02 in	2.33 cm; 0.92 in	2.45 cm; 0.96 in
V%: 5.43	4.91	5.10

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Buttock-Popliteal Length*  
NAVY RECRUITS: *Buttock-Popliteal Length*  
THAI: *Buttock-Popliteal Length*  
US ADULTS: *Buttock-Popliteal Length*

*Buttock-Popliteal Length—NATO (Continued)*

USMC: *Buttock-Popliteal Length*  
USN: *Buttock-Popliteal Length*  
VIETNAM: *Buttock-Popliteal Length*

Not Equivalent:

HOOTON: *Seat Length*—[Measurement not in plane of seat ]  
TUFTS: *Seat Length*—[Measurement not in plane of seat ]

Indeterminable:

None

**BUTTOCK-POPLITEAL LENGTH**

**Reference: NAVY RECRUITS**

Subject sits erect, with his feet resting on a surface adjusted so that his knees are bent at right angles. Buttock-popliteal length is measured as the horizontal distance from the back of the right buttock to the back of the right knee (popliteal area). An anthropometer is used.

N: 4095  
 $\bar{X}$ : 48.94 cm; 19.27 in  
SD: 2.33 cm; 0.92 in  
V%: 4.78

**Similar Dimensions:**

Equivalent:

ARMY '66: *Buttock-Popliteal Length*  
NATO: *Buttock-Popliteal Length*  
THAI: *Buttock-Popliteal Length*  
US ADULTS: *Buttock-Popliteal Length*  
USMC: *Buttock-Popliteal Length*  
USN: *Buttock-Popliteal Length*  
VIETNAM: *Buttock-Popliteal Length*

Not Equivalent:

HOOTON: *Seat Length*—[Measurement not in plane of seat ]  
TUFTS: *Seat Length*—[Measurement not in plane of seat ]

Indeterminable:

None

## BUTTOCK-POPLITEAL LENGTH

### Reference: THAI

†Subject, sitting erect on table or bench† With legs bent to form right angle at knee, measured as distance from rearmost projection of buttock to back of right knee (medial head of gastrocnemius).

N: 2950  
X: 44.5 cm; 17.5 in  
SD: 2.4 cm; 0.9 in  
V%: 5.4

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Buttock-Popliteal Length*  
NATO: *Buttock-Popliteal Length*  
NAVY RECRUITS: *Buttock-Popliteal Length*  
US ADULTS: *Buttock-Popliteal Length*  
USMC: *Buttock-Popliteal Length*  
USN: *Buttock-Popliteal Length*  
VIETNAM: *Buttock-Popliteal Length*

#### Not Equivalent:

HOOTON: *Seat Length*—[Measurement not in plane of seat ]  
TUFTS: *Seat Length*—[Measurement not in plane of seat ]

#### Indeterminable:

None

## BUTTOCK-POPLITEAL LENGTH

### Reference: US ADULTS

†Examinee seated on a flat, horizontal board, with the knees at right angles, thighs horizontal, and popliteal areas lightly touching the seat surface† The examinee sat erect, hands on knees, popliteal fossae *+hollows at the back of the knee†* at the edge of the sitting board. The measurement was made with an anthropometer, from the inner edge of a backboard (held in light contact with the examinee's back at right angles to the sitting board) to the front edge of the sitting surface.

*Buttock-Popliteal Length—US ADULTS (Continued)*

<i>Men</i>	<i>Women</i>
N: 3091	3581
$\bar{X}$ : 49.3 cm; 19.4 in	48.0 cm; 18.9 in
Est SD: [2.25 cm; 1.28 in]	[3.15 cm; 1.24 in]
Est V%: [15.2]	[15.2]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Buttock-Popliteal Length*  
NATO: *Buttock-Popliteal Length*  
NAVY RECRUITS: *Buttock-Popliteal Length*  
THAI: *Buttock-Popliteal Length*  
USMC: *Buttock-Popliteal Length*  
USN: *Buttock-Popliteal Length*  
VIETNAM: *Buttock-Popliteal Length*

**Not Equivalent:**

HOOTON: *Seat Length*—[Measurement not in plane of seat ]  
TUFTS: *Seat Length*—[Measurement not in plane of seat ]

**Indeterminable:**

None

**BUTTOCK-POPLITEAL LENGTH**

**Reference: USMC**

Subject sits erect, with his feet resting on a surface adjusted so that his knees are bent at right angles. Buttock-popliteal length is measured as the horizontal distance from the back of the right buttock to the back of the right knee (popliteal area). An anthropometer is used.

N: 2008  
 $\bar{X}$ : 49.12 cm; 19.34 in  
SD: 2.54 cm; 1.00 in  
V%: 5.18

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Buttock-Popliteal Length*  
NATO: *Buttock-Popliteal Length*

*Buttock-Popliteal Length—USMC (Continued)*

NAVY RECRUITS: *Buttock-Popliteal Length*

THAI: *Buttock-Popliteal Length*

US ADULTS: *Buttock-Popliteal Length*

USN: *Buttock-Popliteal Length*

VIETNAM: *Buttock-Popliteal Length*

Not Equivalent:

HOOTON: *Seat Length*—[Measurement not in plane of seat]

TUFTS: *Seat Length*—[Measurement not in plane of seat]

Indeterminable:

None

**BUTTOCK-POPLITEAL LENGTH**

Reference: USN

Subject sits erect, his feet resting on a surface adjusted so that the knees are bent at about right angles, and with the back of the calves in contact with the edge of the table. With the wooden block touching the rearmost surface of the buttocks, use the scale on the table surface to measure the horizontal distance from the most posterior protrusion of the right buttock to the back of the calf.

N: 1549

$\bar{X}$ : 50.26 cm; 19.79 in

SD: 2.52 cm; 0.99 in

V%: 5.01

Similar Dimensions:

Equivalent:

ARMY '66: *Buttock-Popliteal Length*

NATO: *Buttock-Popliteal Length*

NAVY RECRUITS: *Buttock-Popliteal Length*

THAI: *Buttock-Popliteal Length*

US ADULTS: *Buttock-Popliteal Length*

USMC: *Buttock-Popliteal Length*

VIETNAM: *Buttock-Popliteal Length*

*Buttock-Popliteal Length—USN (Continued)*

Not Equivalent:

HOOTON: *Seat Length*—[Measurement not in plane of seat ]

TUFTS: *Seat Length*—[Measurement not in plane of seat ]

Indeterminable:

None

**BUTTOCK-POPLITEAL LENGTH**

**Reference: VIETNAM**

†Subject, sitting erect on table or bench† With the legs bent to form right angle at knee, measured as distance from rearmost projection of buttock to back of right knee (medial head of gastrocnemius).

N: 2124

$\bar{X}$ : 44.4 cm; 17.5 in

SD: 2.6 cm; 1.0 in

V%: 5.8

**Similar Dimensions:**

Equivalent:

ARMY '66: *Buttock-Popliteal Length*

NATO: *Buttock-Popliteal Length*

NAVY RECRUITS: *Buttock-Popliteal Length*

THAI: *Buttock-Popliteal Length*

US ADULTS: *Buttock-Popliteal Length*

USMC: *Buttock-Popliteal Length*

USN: *Buttock-Popliteal Length*

Not Equivalent:

HOOTON: *Seat Length*—[Measurement not in plane of seat ]

TUFTS: *Seat Length*—[Measurement not in plane of seat ]

Indeterminable:

None

## BUTTOCKS CIRCUMFERENCE

### Reference: FAA

In the standing position, the horizontal circumference of the hips at the level of greatest protrusion of the buttocks.

N: 681  
 $\bar{X}$ : 96.73 cm; 38.08 in  
SD: 6.17 cm; 2.43 in  
V%: 6.38

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Hip Circumference*  
ARMY AVIATORS: *Seat Circumference*  
JAPAN: *Buttock Circumference*  
KOREA: *Buttock Circumference*  
NATO: *Buttock Circumference*  
NAVY RECRUITS: *Hip Circumference*  
THAI: *Hip Circumference*  
USAF '50: *Buttock Circumference*  
USMC: *Hip Circumference*  
USN: *Buttock Circumference*  
VIETNAM: *Hip Circumference*  
WAF RECRUITS: *Buttocks Circumference*

#### Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Seat Circumference*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions  
WASP: *Hip Circumference*—Maximum . . . around buttocks  
WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

#### Indeterminable:

None

#### See Also:

*Buttock Circumference, Sitting*

## BUTTOCKS CIRCUMFERENCE

### Reference: WAF RECRUITS

Subject stands. Hold the tape in a horizontal plane, passing over the area of the most posterior projection of the buttocks.

N: 847

$\bar{X}$ : 93.73 cm; 36.90 in

SD: 5.40 cm; 2.13 in

V%: 5.76

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Hip Circumference*  
ARMY AVIATORS: *Scat Circumference*  
FAA: *Buttocks Circumference*  
JAPAN: *Buttock Circumference*  
KOREA: *Buttock Circumference*  
NATO: *Buttock Circumference*  
NAVY RECRUITS: *Hip Circumference*  
THAI: *Hip Circumference*  
USAF '50: *Buttock Circumference*  
USMC: *Hip Circumference*  
USN: *Buttock Circumference*  
VIETNAM: *Hip Circumference*

#### Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Scat [Circumference]*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[Maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions  
WASP: *Hip Circumference*—Maximum . . . around buttocks  
WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

#### Indeterminable:

None

### See Also:

*Buttock Circumference, Sitting*

## BUTTOCKS DEPTH

Reference: FAA

The depth of the body at the point of maximum protrusion of the buttocks.

N: 681  
 $\bar{X}$ : 23.99 cm; 9.44 in  
SD: 2.22 cm; 0.88 in  
V%: 9.28

Similar Dimensions:

Equivalent:

KOREA: *Buttock Depth*  
NATO: *Buttock Depth*  
USAF '50: *Buttock Depth*  
USN: *Buttock Depth*

Not Equivalent:

None

Indeterminable:

None

See Also:

*External Conjugate (Antero-Posterior) Diameter of the Pelvis*  
*Trunk Depth*

## BUTTOCKS-KNEE LENGTH

Reference: FAA

With subject seated, the horizontal distance from the most posterior point of the right buttock to the front of the knee cap.

*Buttocks-Knee Length—FAA (Continued)*

N: 680  
 $\bar{X}$ : 60.27 cm; 23.73 in  
SD: 2.79 cm; 1.10 in  
V%: 4.60

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
ARMY '66: *Buttock-Knee Length*  
ARMY ARMORED: *Buttock-Knee*  
ARMY AVIATORS: *Buttock-Knee Length*  
ARMY QM: *Buttock-Knee*  
FRANCE '65: *Distance fesse-genou*  
KOREA: *Buttock-Knee Length*  
NATO: *Buttock-Knee Length*  
NAVY RECRUITS: *Buttock-Knee Length*  
THAI: *Buttock-Knee Length*  
TUFTS: *Buttock-Knee*  
USAF '50: *Buttock-Knee Length*  
USMC: *Buttock-Knee Length*  
USN: *Buttock-Knee*  
VIETNAM: *Buttock-Knee Length*  
WAC: *Buttock-Knee*  
WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh*—from iliospinale to tibiale  
INDIA: *Thigh [Length]*—sits back [against board] . . . as "hard" as possible  
RAF-RCAF: *Thigh Length*—buttocks hard against the backboard  
US ADULTS: *Buttock-Knee Length*—from the most posterior protrusion of the sacral area

**Indeterminable:**

None

## BUTTOCKS-LEG LENGTH

Reference: FAA

With the subject seated and right leg extended, the distance from the base of the right heel to the most dorsal point of the right buttock.

N: 691  
 $\bar{X}$ : 108.41 cm; 42.68 in  
SD: 4.89 cm; 1.93 in  
V%: 4.51

Similar Dimensions:

Equivalent:

ARMY AVIATORS: *Leg Length, Sitting*  
BELGIUM: *Longueur des jambes*  
FRANCE '65: *Longueur utile du membre inférieur*  
INDIA: *Total Leg [Length]*  
KOREA: *Buttock-Leg Length*  
RAF-RCAF: *Leg Length*  
TUFTS: *Leg Length*  
USAF: '50: *Buttock-Leg Length*

Not Equivalent:

FRANCE '55: *Longueur de jambe*—[Shoes must be worn]

Indeterminable:

None

See Also:

*Heel on Floor with Leg Extended*

## CALF CIRCUMFERENCE

### Reference: AAF

Weight even on both feet. Left calf, maximum horizontal, of three attempts.

#### Cadets

N: 2955  
Median: 35.93 cm; 14.1 in  
SD: NDA  
V%: NDA

#### Gunners

581  
35.02 cm; 13.8 in  
NDA  
NDA

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: ARMY '66

Subject stands erect, with his feet slightly apart. The horizontal circumference of the right lower leg is measured at the level of the greatest bulge of the calf muscle. A steel tape is used.

N: 6682  
 $\bar{X}$ : 36.60 cm; 14.41 in  
SD: 2.66 cm; 1.05 in  
V%: 7.29

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: ARMY ARMORED

Weight even on both feet. Left calf, maximum horizontal, of three attempts.

Reference cites AAF data for this dimension.

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: ARMY QM

†Erect posture, legs spread slightly . . . † The maximum circumference of the

***Calf Circumference—ARMY QM (Continued)***

leg at the calf taken in a plane at right angles to the long axis of the tibia. Measured three times and the maximum recorded.

N: 24686  
 $\bar{X}$ : 35.76 cm; 14.08 in  
SD: 2.38 cm; 0.94 in  
V%: [8.50]

**Similar Dimensions:**

**Equivalent:**

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

**Not Equivalent:**

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

**Indeterminable:**

None

**CALF CIRCUMFERENCE**

**Reference: FAA**

The maximum circumference of the calf.

***Calf Circumference—FAA (Continued)***

N: 681  
 $\bar{X}$ : 36.62 cm; 14.42 in  
SD: 2.45 cm; 0.96 in  
V%: 6.59

**Similar Dimensions:**

**Equivalent:**

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

**Not Equivalent:**

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

**Indeterminable:**

None

**CALF CIRCUMFERENCE**

**Reference: JAPAN**

Subject stands. Holding the tape in a horizontal plane, measure the maximum circumference of the right calf.

*Calf Circumference—JAPAN (Continued)*

N: 237  
X: 35.72 cm; 14.06 in  
SD: 2.12 cm; 0.83 in  
V%: 5.90

**Similar Dimensions:**

**Equivalent:**

AAF: *Calf Circumference*  
ARMY '56: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

**Not Equivalent:**

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

**Indeterminable:**

None

**CALF CIRCUMFERENCE**

**Reference: KOREA**

Subject stands. Holding the tape in a horizontal plane, measure the maximum circumference of the right calf.

***Calf Circumference—KOREA (Continued)***

N: 264  
 $\bar{X}$ : 35.37 cm; 13.93 in  
SD: 2.42 cm; 0.95 in  
V%: 6.83

**Similar Dimensions:**

**Equivalent:**

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

**Not Equivalent:**

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

**Indeterminable:**

None

**CALF CIRCUMFERENCE**

**Reference: NATO**

Subject stands. Holding the tape in a horizontal plane, measure the maximum

### *Calf Circumference—NATO (Continued)*

circumference of the right calf at the level of the landmark †maximum circumference of the calf†.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 35.54 cm; 13.99 in	36.08 cm; 14.20 in	36.46 cm; 14.35 in
SD: 2.30 cm; 0.91 in	2.15 cm; 0.85 in	2.21 cm; 0.87 in
V%: 6.46	5.95	6.05

### **Similar Dimensions:**

#### **Equivalent:**

AAF: Calf Circumference  
 ARMY '66: Calf Circumference  
 ARMY ARMORED: Calf Circumference  
 ARMY QM: Calf Circumference  
 FAA: Calf Circumference  
 FRANCE '65: *Périmètre maximum de la jambe*  
 GENEVA: Circumference of the Calf of the Leg  
 JAPAN: Calf Circumference  
 KOREA: Calf Circumference  
 MARTIN: *Groesster Umfang des rechten Unterschenkels*  
 NAVY RECRUITS: Calf Circumference  
 THAI: Calf Circumference  
 THOUSAND AVIATORS: Calf Circumference  
 USAF '50: Calf Circumference  
 USMC: Calf Circumference  
 USN: Calf Circumference  
 VIETNAM: Calf Circumference  
 WAF RECRUITS: Calf Circumference  
 WASP: Calf Circumference  
 WOMEN: Calf Girth

#### **Not Equivalent:**

HRDLICKA: Girth of Calf - leg forms a little larger than a right angle with the thigh

#### **Indeterminable:**

None

## CALF CIRCUMFERENCE

### Reference: NAVY RECRUITS

Subject stands erect, with his feet slightly apart. The horizontal circumference of the right lower leg is measured at the level of the greatest bulge of the calf muscle. A steel tape is used.

N: 4095  
 $\bar{X}$ : 36.49 cm; 14.37 in  
SD: 2.71 cm; 1.07 in  
V%: 7.47

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

Reference: THAI

Measured as maximum circumference of right calf.

N: 2950  
 $\bar{X}$ : 34.2 cm; 13.5 in  
SD: 2.3 cm; 0.9 in  
V%: 6.7

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: THOUSAND AVIATORS

Maximal value while the subject stood on a chair with his legs slightly apart.

N: 675  
 $\bar{X}$ : 37.22 cm; 14.65 in  
SD: 2.14 cm; 0.84 in  
V%: [5.73]

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLÍČKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

Reference: USAF '50

Subject stands. Holding the tape in a horizontal plane, measure the maximum circumference of the right calf.

N: 4048  
 $\bar{X}$ : 36.57 cm; 14.40 in  
SD: 2.44 cm; 0.96 in  
V%: 6.67

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: USMC

Subject stands erect, with his feet slightly apart. The horizontal circumference of the right lower leg is measured at the level of the greatest bulge of the calf muscle. A steel tape is used.

N: 2008  
 $\bar{X}$ : 37.16 cm; 14.63 in  
SD: 2.33 cm; 0.92 in  
V%: 6.32

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: USN

Subject stands. Holding the tape in a horizontal plane, measure the maximum circumference of the right calf at the level of the landmark †maximum circumference of the calf†.

N: 1549  
 $\bar{X}$ : 37.49 cm; 14.76 in  
SD: 2.20 cm; 0.87 in  
V%: 5.88

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: VIETNAM

Measured as maximum circumference of right calf.

N: 2123  
 $\bar{X}$ : 32.5 cm; 12.8 in  
SD: 2.1 cm; 0.8 in  
V%: 6.5%

### Similar Dimensions:

#### Equivalent:

AAF: Calf Circumference  
ARMY '66: C. Circumference  
ARMY ARMORED: Calf Circumference  
ARMY QM: Calf Circumference  
VAA: Calf Circumference  
FRANCE '65: Périmètre maximum de la jambe  
GENEVA: Circumference of the Calf of the Leg  
JAPAN: Calf Circumference  
KOREA: Calf Circumference  
MARTIN: Groesster Umfang des rechten Unterschenkels  
NATO: Calf Circumference  
NAVY RECRUITS: Calf Circumference  
THAI: Calf Circumference  
THOUSAND AVIATORS: Calf Circumference  
USAF '50: Calf Circumference  
USMC: Calf Circumference  
USN: Calf Circumference  
WAF RECRUITS: Calf Circumference  
WASP: Calf Circumference  
WOMEN: Calf Girth

#### Not Equivalent:

HRDLICKA: Girth of Calf - leg forms a little larger than a right angle with the thigh

#### Indeterminable:

None

## CALF CIRCUMFERENCE

### Reference: WAF RECRUITS

Subject stands. Pass the tape horizontally over the maximum bulge of the right calf.

N: 846  
 $\bar{X}$ : 34.08 cm; 13.42 in  
SD: 2.48 cm; 0.98 in  
V%: 7.29

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
U F '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WASP: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF CIRCUMFERENCE

Reference: WASP

Weight even on both feet. Left calf, maximum horizontal, of three attempts.

### Women Pilots

N: 444  
 $\bar{X}$ : 35.00 cm; 13.78 in  
SD: NDA  
V%: NDA

### Flying Nurses

149  
34.42 cm; 13.55 in  
NDA  
NDA

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WOMEN: *Calf Girth*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF GIRTH

### Reference: WOMEN

Tape.†The subject's position was her normal erect posture with her hands away from her hips. The feet were parted a few centimeters to permit the tape to pass freely between the medial surfaces of the thighs† . . . The tape was placed around the calf where the measurer, by inspection of the posterior profile, judged the girth to be maximum. The plane of the girth was kept parallel with the floor.

N: 10042  
 $\bar{X}$ : 34.16 cm; 13.45 in  
SD: 3.05 cm; 1.20 in  
V%: 9.0

### Similar Dimensions:

#### Equivalent:

AAF: *Calf Circumference*  
ARMY '66: *Calf Circumference*  
ARMY ARMORED: *Calf Circumference*  
ARMY QM: *Calf Circumference*  
FAA: *Calf Circumference*  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: *Circumference of the Calf of the Leg*  
JAPAN: *Calf Circumference*  
KOREA: *Calf Circumference*  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: *Calf Circumference*  
NAVY RECRUITS: *Calf Circumference*  
THAI: *Calf Circumference*  
THOUSAND AVIATORS: *Calf Circumference*  
USAF '50: *Calf Circumference*  
USMC: *Calf Circumference*  
USN: *Calf Circumference*  
VIETNAM: *Calf Circumference*  
WAF RECRUITS: *Calf Circumference*  
WASP: *Calf Circumference*

#### Not Equivalent:

HRDLICKA: *Girth of Calf - leg forms a little larger than a right angle with the thigh*

#### Indeterminable:

None

## CALF HEIGHT

Reference: ARMY '66

Subject stands erect, with heels together. Calf height is measured as the vertical distance from the floor (or standing surface) to the level of the greatest bulge of the right calf muscle. An anthropometer is used.

N: 6682  
 $\bar{X}$ : 35.40 cm; 13.94 in  
SD: 2.69 cm; 1.06 in  
V%: 7.62

### Similar Dimensions:

Equivalent:

NATO: *Calf Height*  
NAVY RECRUITS: *Calf Height*  
USMC: *Calf Height*  
WAF RECRUITS: *Calf Height*

Not Equivalent:

None

Indeterminable:

None

## CALF HEIGHT

Reference: NATO

Subject stands erect. Using the anthropometer, measure the vertical distance from the standing surface to the landmark †the level of the maximum circumference of the calf† indicating the maximum circumference of the right calf.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 33.69 cm; 13.26 in	34.11 cm; 13.43 in	34.56 cm; 13.61 in
SD: 1.94 cm; 0.76 in	2.07 cm; 0.81 in	2.09 cm; 0.82 in
V%: 5.76	6.05	6.05

***Calf Height—NATO (Continued)***

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Calf Height*  
NAVY RECRUITS: *Calf Height*  
USMC: *Calf Height*  
WAF RECRUITS: *Calf Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**CALF HEIGHT**

**Reference: NAVY RECRUITS**

Subject stands erect, with heels together. Calf height is measured as the vertical distance from the floor (or standing surface) to the level of the greatest bulge of the right calf muscle. An anthropometer is used.

N: 4094  
 $\bar{X}$ : 36.11 cm; 14.22 in  
SD: 2.63 cm; 1.05 in  
V%: 7.38

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Calf Height*  
NATO: *Calf Height*  
USMC: *Calf Height*  
WAF RECRUITS: *Calf Height*

**Not Equivalent:**

None

**Indeterminable:**

None

## CALF HEIGHT

### Reference: USMC

Subject stands erect, with heels together. Calf height is measured as the vertical distance from the floor (or standing surface) to the level of the greatest bulge of the right calf muscle. An anthropometer is used.

N: 2608  
 $\bar{X}$ : 36.80 cm; 14.19 in  
SD: 2.69 cm; 1.06 in  
V%: 7.47

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Calf Height*  
NATO: *Calf Height*  
NAVY RECRUITS: *Calf Height*  
WAF RECRUITS: *Calf Height*

#### Not Equivalent:

None

#### Indeterminable:

None

## CALF HEIGHT

### Reference: WAF RECRUITS

Subject stands. With the anthropometer measure the height from the floor to the marked point on the right calf. [Level of maximum calf circumference]

N: 851  
 $\bar{X}$ : 33.09 cm; 13.03 in  
SD: 2.71 cm; 1.07 in  
V%: 8.19

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Calf Height*

***Calf Height—WAF RECRUITS (Continued)***

NATO: *Calf Height*  
NAVY RECRUITS: *Calf Height*  
USMC: *Calf Height*

Not Equivalent:

None

Indeterminable:

None

**CERVICALE HEIGHT**

**Reference: ARMY '66**

Subject stands erect, with heels together and head level. Cervicale Height is measured as the vertical distance from the floor to the cervical point (the body protrusion of the 7th cervical vertebra at the base of the neck). An anthropometer is used.

N: 6682  
 $\bar{X}$ : 149.55 cm; 59.88 in  
SD: 6.35 cm; 2.50 in  
V%: 4.24

**Similar Dimensions:**

Equivalent:

ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

Not Equivalent:

None

*Cervicale Height—ARMY '66 (Continued)*

Indeterminable:

None

**CERVICALE HEIGHT**

**Reference: ARMY QM**

†Subject stands erect, with heels together and eyes straight ahead† Measurement is taken vertically to cervicale †The tip of the spine of the seventh cervical vertebra at the base of the neck†.

N: 21141  
 $\bar{X}$ : 149.20 cm; 58.74 in  
SD: 6.05 cm; 2.38 in  
V%: [4.06]

**Similar Dimensions:**

Equivalent:

ARMY '66: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

Not Equivalent:

None

Indeterminable:

None

## CERVICALE HEIGHT

### Reference: FAA

Vertical distance from point *cervicale* (the bony prominence at the base of the neck) to the floor.

N: 678  
 $\bar{X}$ : 150.27 cm; 59.16 in  
SD: 5.79 cm; 2.28 in  
V%: 3.86

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

#### Not Equivalent:

None

#### Indeterminable:

None

## CERVICALE HEIGHT

### Reference: JAPAN

Subject stands erect. Using the anthropometer, measure the vertical distance from the floor to the point marked on the posterior base of the neck (bony bump formed by the 7th cervical vertebra).

***Cervicale Height—JAPAN (Continued)***

N: 223  
 $\bar{X}$ : 141.16 cm; 55.57 in  
SD: 5.08 cm; 2.00 in  
V%: 3.60

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**CERVICALE HEIGHT**

**Reference: KOREA**

Subject stands erect. Using the anthropometer, measure the vertical distance from the floor to the point marked on the posterior base of the neck (bony bump formed by the 7th cervical vertebra).

N: 264  
 $\bar{X}$ : 142.18 cm; 55.98 in  
SD: 4.49 cm; 1.97 in  
V%: 3.16

**Similar Dimensions:**

**Equivalent:**

***Cervicale Height—KOREA (Continued)***

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

Not Equivalent:

None

Indeterminable:

None

**CERVICALE HEIGHT**

**Reference: NATO**

Subject stands erect, his head in the Frankfort plane. Using the anthropometer, measure the vertical distance from the standing surface to the cervicale landmark indicating the protrusion of the spinous process of the 7th cervical vertebra.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 143.69 cm; 56.57 in	144.50 cm; 56.89 in	145.66 cm; 57.35 in
SD: 5.45 cm; 2.15 in	5.49 cm; 2.16 in	6.01 cm; 2.37 in
V%: 3.79	3.80	4.13

**Similar Dimensions:**

Equivalent:

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*

***Cervicale Height—NATO (Continued)***

KOREA: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

Not Equivalent:

None

Indeterminable:

None

**CERVICALE HEIGHT**

**Reference: NAVY RECRUITS**

Subject stands erect, with heels together and head level. Cervicale Height is measured as the vertical distance from the floor to the cervical point (the body protrusion of the 7th cervical vertebra at the base of the neck). An anthropometer is used.

N: 4095  
 $\bar{X}$ : 149.63 cm; 58.91 in  
SD: 6.32 cm; 2.49 in  
V%: 4.22

**Similar Dimensions:**

Equivalent:

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*

***Cervicale Height—NAVY RECRUITS (Continued)***

WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

Not Equivalent:

None

Indeterminable:

None

**CERVICALE HEIGHT**

**Reference: USAF '50**

Subject stands erect. Using the anthropometer, measure the vertical distance from the floor to the point marked on the posterior base of the neck (bony bump formed by the 7th cervical vertebra).

N: 4062  
 $\bar{X}$ : 150.07 cm; 59.08 in  
SD: 5.87 cm; 2.31 in  
V%: 3.91

**Similar Dimensions:**

Equivalent:

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

Not Equivalent:

None

*Cervicale Height—USAF '50 (Continued)*

Indeterminable:

None

**CERVICALE HEIGHT**

**Reference: USMC**

Subject stands erect, with heels together and head level. Cervicale Height is measured as the vertical distance from the floor to the cervical point (the bony protrusion of the 7th cervical vertebra at the base of the neck). An anthropometer is used.

N: 2008

$\bar{X}$ : 149.58 cm; 58.89 in

SD: 6.09 cm; 2.40 in

V%: 4.08

**Similar Dimensions:**

Equivalent:

ARMY '66: *Cervicale Height*

ARMY QM: *Cervicale Height*

FAA: *Cervicale Height*

JAPAN: *Cervicale Height*

KOREA: *Cervicale Height*

NATO: *Cervicale Height*

NAVY RECRUITS: *Cervicale Height*

USAF '50: *Cervicale Height*

USN: *Cervicale Height*

WAC: *Cervicale Height*

WAF RECRUITS: *Cervicale Height*

WOMEN: *Cervicale Height*

Not Equivalent:

None

Indeterminable:

None

## CERVICALE HEIGHT

### Reference: USN

Subject stands erect, his head in the Frankfort plane. Using the anthropometer, measure the vertical distance from the standing surface to the cervicale landmark indicating the protrusion of the spinous process of the 7th cervical vertebra.

N: 1549  
 $\bar{X}$ : 151.16 cm; 59.51 in  
SD: 5.54 cm; 2.18 in  
V%: 3.67

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

#### Not Equivalent:

None

#### Indeterminable:

None

## CERVICALE HEIGHT

### Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon† Measurement taken from floor vertically to cervicale †The most dorsally protruding point on the spine of the 7th cervical vertebra†.

***Cervicale Height—WAC (Continued)***

N: 8531  
 $\bar{X}$ : 138.46 cm; 54.51 in  
SD: 5.78 cm; 2.28 in  
V%: [4.2]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*  
WOMEN: *Cervicale Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**CERVICALE HEIGHT**

**Reference: WAF RECRUITS**

Subject stands. Measure from the floor to the marked cervicale point †the projecting tip of the 7th neck vertebra (at the base of the neck)† with the anthropometer.

N: 852  
 $\bar{X}$ : 138.18 cm; 54.40 in  
SD: 5.92 cm; 2.33 in  
V%: 4.29

*Cervicale Height—WAF RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WOMEN: *Cervicale Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**CERVICALE HEIGHT**

**Reference: WOMEN**

Anthropometer . . . The position of the subject was normal, nonfatigue, away from the wall so that the anthropometer could be placed back of her. The eyes were directed forward and the head held erect. The palms of the hands were placed on the thighs. . . . The anthropometer was held vertical in the right hand in line with the center back. . . . The point was lowered to the cervicale in the center of the spinous process of the seventh cervical vertebra. [Height from floor]

N: 10042  
 $\bar{X}$ : 137.97 cm; 54.32 in  
SD: 5.84 cm; 2.30 in  
V%: 4.2

**Similar Dimensions:**

***Cervicale Height—WOMEN (Continued)***

**Equivalent:**

ARMY '66: *Cervicale Height*  
ARMY QM: *Cervicale Height*  
FAA: *Cervicale Height*  
JAPAN: *Cervicale Height*  
KOREA: *Cervicale Height*  
NATO: *Cervicale Height*  
NAVY RECRUITS: *Cervicale Height*  
USAF '50: *Cervicale Height*  
USMC: *Cervicale Height*  
USN: *Cervicale Height*  
WAC: *Cervicale Height*  
WAF RECRUITS: *Cervicale Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**CERVICALE-LATERAL NECK POINT**

**Reference: WAC**

†Subject stood erect without stretching, eyes on an imaginary horizon† Measurer stood in rear of subject. Measurement taken from left lateral neck point †the point at which the lateral line of the neck meets the superior surface of the shoulder† cervicale †The most dorsally protruding point on the spine of the 7th cervical vertebra†. Tape kept in contact with the skin.

N: 8528  
 $\bar{X}$ : 9.12 cm; 3.59 in  
SD: 0.94 cm; 0.37 in  
V%: [10.31]

**Similar Dimensions:**

None

## CERVICALE TO WAIST ANTERIOR

### Reference: WOMEN

Tape. . . . The subject stood in her normal, erect position. . . . The zero point of the tape was placed on the cervicale. The tape was then guided along the right side of the neck base to the shoulder-line intersection. From this point it was allowed to follow the contour of the body to the waist level *†lies at the lower edge of the lowest rib and was found by palpating the sides of the body in the midaxillary line†* at the center front, where the reading was taken.

N: 10042  
X: 48.51 cm; 19.10 in  
SD: 2.79 cm; 1.10 in  
V%: 5.7

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

JAPAN: Waist Front - from . . . (suprasternale) . . . to . . . *†the level of greatest lateral indentation in the region of the abdomen*

KOREA: Waist Front - from . . . (suprasternale) . . . to . . . *†the level of greatest lateral indentation in the region of the abdomen*

NATO: Waist Front-Omphalion - from suprasternale . . . to the center of the umbilicus.

USAF '50: Waist Front - from . . . (suprasternale) . . . to . . . *†the level of greatest lateral indentation in the region of the abdomen*

WAC: Lateral Neck Point-Waist - from left lateral neck point . . . to the level of the anterior waist point *†minimal circumference between iliac crests and the 12th rib*

WAF RECRUITS: Waist Front to Cervicale - from . . . cervicale . . . over the right shoulder to the waist point . . . [. . . between omphalion and greatest lateral indentation . . .]

WOMEN: Anterior Waist Length - Neck base . . . in the center front . . . [to] . . . lower edge of the lowest rib

#### Indeterminable:

None

## CHEST [CIRCUMFERENCE]

### Reference: AUSTRALIA

*Chest [Circumference]—AUSTRALIA (Continued)*

The horizontal circumference taken well up under the armpits with the chest neither expanded nor contracted.

N: 3472  
 $\bar{X}$ : 97.73 cm; 38.48 in  
SD: 6.52 cm; 2.57 in  
V%: [6.67]

**Similar Dimensions:**

**Equivalent:**

COMAS: *Chest Circumference [Axillary, Calm Respiration]* [When measured on men.]  
MONTAGU: *Axillary Chest Girth* —[When measured on men.]

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal . . . just above nipples  
ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing  
ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples  
ARMY AVIATORS: *Chest Circumference*—at nipple level  
ARMY QM: *Chest Circumference*—tape on the areolae above the nipples  
BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front  
BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front  
BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front

*Chest [Circumference]—AUSTRALIA (Continued)*

- BULGARIA:** *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . †the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- COMAS:** *Chest Circumference [Axillary, Calm Respiration]* — [When measured on women.]
- COMAS:** *Chest Circumference [Axillary, Full Exhalation]*—at full exhalation
- COMAS:** *Chest Circumference [Axillary, Full Inhalation]*—at full inhalation
- COMAS:** *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS:** *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS:** *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS:** *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples
- COMAS:** *Chest Circumference [Nipples, Full Exhalation, Men]* — at the nipples . . . minimum chest circumference at full exhalation
- COMAS:** *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation
- COMAS:** *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage
- COMAS:** *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS:** *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA:** *Chest Circumference* — Maximum thoracic circumference . . . nipples
- FRANCE '55:** *Périmètre thoracique [Expiration]*—[at xiphoid process . . . after . . . deep exhalation]
- FRANCE '55:** *Périmètre thoracique [Mean]* — [at xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '55:** *Périmètre thoracique [Inspiration]*—[at xiphoid process . . . after deep inhalation]
- FRANCE '65:** *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples]
- FRANCE '65:** *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around the two nipples]
- FRANCE '65:** *Périmètre xiphoidien au repos*—[tape . . . passes around level with the xiphoid process]
- FRANCE '65:** *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]

*Chest [Circumference]—AUSTRALIA (Continued)*

- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[When measured on women.]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]
- MONTAGU: *Axillary Chest Girth*—[When measured on women.]
- MONTAGU: *Mesosternale Chest Girth*—[When measured on women.]
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space† at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space† at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples
- USAF '50: *Chest Circumference*—nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—nipples
- WAC: *Breast Circumference*—passing over both nipples. [Bra] [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing [Measured on women.]

*Chest [Circumference]—AUSTRALIA (Continued)*

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples...across front above fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples...across front below fullness of the breasts [Measured on women.]

WASP: *Chest Girth*—maximum . . . over breasts [Measured on women.]

WOMEN: *Bust Circumference*—maximum girth [Measured on women.]

**Indeterminable:**

In the reference dimension, the passage of the tape across the front and back of the thorax is not clearly specified. Comparability can not be determined when the following are measured on the same sex as that of the reference dimension.

MARTIN: *Umfang der Brust bei ruhigem Atmen*

MONTAGU: *Mesosternale Chest Girth*

**CHEST [DEPTH, SITTING]**

**Reference: INDIA**

†The height of the seat [13½ in, 34.3 cm] is first adjusted by adding to or reducing the number of pieces of wooden blocks [½ in, 1.27 cm] on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with the back against one wing of the board and his right side touching the other wing . . . arm touching against the side of the body and the fore-arm at right angle and arm with palm stretched facing inwards.† . . . block placed at the nipple level.

N: 691

$\bar{X}$ : 22.34 cm; 8.80 in

SD: 1.38 cm; 0.54 in

V%: [6.18]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Depth*—fixed arm of anthropometer in spinal groove

*Chest (Depth, Sitting)—INDIA (Continued)*

- ARMY '66: *Chest Depth* - Subject stands erect. . . . An anthropometer is used
- ARMY ARMORED: *Chest Depth* - fixed arm of anthropometer in spinal groove
- ARMY ARMORED: *Chest Thickness* - Stand at attention. Greatest thickness
- ARMY AVIATORS: *Chest Depth* - [Subject free standing]
- ARMY QM: *Chest Depth* - Subject stands erect . . . anthropometer
- BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . pelvimeter
- FAA: *Chest Depth* - [Subject free standing]
- FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [The subject stands . . . at the level of the fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - The subject stands erect . . . at the level of the base of ensiform [xiphoid] cartilage
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - The subject stands erect . . . at level of the base of ensiform [xiphoid] cartilage
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - The subject stands erect. . . at the level of the upper border of the fourth chondro-sternal articulation
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - The subject stands erect . . . at the level of the upper border of the fourth chondro-sternal articulation
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - stands in natural, easy, erect position
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation
- KOREA: *Chest Depth* - Subject stands erect . . . anthropometer
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - (Large Spreading Caliper). At the level of the inferior angles of the scapulae
- NATO: *Chest Depth* - Subject stands erect. . . anthropometer
- NAVY RECRUITS: *Chest Depth* - Subject stands erect . . . An anthropometer is used
- THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - [Subject free standing]
- TUFTS: *Chest Depth* - fixed arm of anthropometer in spinal groove
- USAF '50: *Chest Depth* - Subject stands erect. . . anthropometer
- USMC: *Chest Depth* - Subject stands erect. . . An anthropometer is used
- USN: *Chest Depth* - Subject stands erect. . . anthropometer
- WAC: *Chest Depth* - Subject stood erect. . . Anthropometer. . . high in the axilla

Indeterminable:

*Chest (Depth, Sitting)—INDIA (Continued)*

None

**See Also:**

*Trunk Depth*

**CHEST ANTERIOR-POSTERIOR DIAMETER**

**Reference: THOUSAND AVIATORS**

†measured at the level of the nipple during normal breathing† Maximal anterior-posterior diameter with subject's arms at his sides.

N: 675  
X̄: 22.96 cm; 9.04 in  
SD: 1.71 cm; 0.67 in  
V%: [7:45]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Depth*  
FAA: *Chest Depth*  
KOREA: *Chest Depth*  
NATO: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*  
USAF '50: *Chest Depth*  
USMC: *Chest Depth*  
USN: *Chest Depth*

**Not Equivalent:**

AAF: *Chest Depth* - Contact to sternum. . .fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Depth* - Contact to sternum. . .fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back  
ARMY QM: *Chest Depth* - sliding arm of the anthropometer. . .just above the nipples. . .body of anthropometer [projects] †downward and backward † Pressure applied  
BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter  
FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the . . .fourth costal cartilage ]

**Chest Antero-Posterior Diameter—THOUSAND AVIATORS (Continued)**

- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid-Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage†. †intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage† †mean of measurements taken at extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondrosternal articulation.† †measurement. . .made in the intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border or the fourth chondro-sternal articulation†. †mean of. . .extremes of inspiration and of expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees† †medium between normal inspiration and expiration
- HRDLICKA: *Antero - Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . .arms. . .forward. . . 65 degrees† †medium between normal inspiration and expiration
- INDIA: *Chest [Depth, Sitting]* - seat . . .back against one wing of the board† block placed at the nipple level
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae. . . mean of. . .measurements made at expiration and inspiration
- TUFTS: *Chest Depth* - Contact to sternum. . .fixed arm of anthropometer in spinal groove
- WAC: *Chest Depth* - left arm extended forward horizontally. . .high in the axilla. . .maximum anterior - posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* -[position of subject's arms not specified]

**See Also:**

*Trunk Depth*

**CHEST BREADTH**

**Reference: AAF**

Flat portion of anthropometer against chest at nipple level. Use only moderate pressure.

**Chest Breadth—AAF (Continued)**

Cadets	Gunnery
N: 2957	581
Median: 28.75 cm; 11.3 in	28.21 cm; 11.1 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

- ARMY ARMORED: *Chest Width* - Arms fully extended above head as far as possible. . .greatest width
- ARMY QM: *Chest Breadth* - Firm pressure applied
- BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale
- FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]
- GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Intermediate] in the horizontal plane at the level of the base of the ensiform cartilage
- GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - in the horizontal plane at the level of the base of the ensiform cartilage
- GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Intermediate] - in the horizontal plane at the level of the upper border of the 4th chondro-sternal articulation
- GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] - in the horizontal plane at the level of the upper border of the 4th chondro-sternal articulation
- HRDLICKA: *Transverse Diameter of the Chest [Men]* - arms are lifted somewhat forward and to about 65 degrees outward. . .the fixed branch is pressed against the right side. . .until it meets with the resistance of the ribs
- HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation. . .the fixed branch is pressed against the right side. . .until it meets with the resistance of the ribs
- MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - distance between the most lateral points on the chest
- NATO: *Chest Breadth - Bone* - instrument at the level of. . .nipples. . .Angle the tips of the anthropometer arms downward. . .strong pressure
- USN: *Chest Breadth* - instrument at the level of. . .nipples. . .Angle the tips of the anthropometer arms downward. . .strong pressure

### ***Chest Breadth--AAF (Continued)***

WAC: *Chest Breadth* - needles extend downward and backward through and as high in the axilla as possible

Indeterminable:

Stage of respiration in reference dimension description not specified.

ARMY ARMORED: *Chest Breadth*

ARMY '66: *Chest Breadth*

FAA: *Chest Breadth*

KOREA: *Chest Breadth*

NATO: *Chest Breadth - Skin*

NAVY RECRUITS: *Chest Breadth*

THOUSAND AVIATORS: *Chest Breadth*

USAF '50: *Chest Breadth*

USMC: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

**See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST BREADTH**

**Reference: ARMY '66**

Subject stands erect, with his arms initially raised and then lowered after the anthropometer is in place. The breadth of the chest is measured at the level of the nipples during normal breathing. An anthropometer is used, and is held horizontally.

N: 6682

$\bar{X}$ : 30.52 cm; 12.04 in

SD: 2.13 cm; 0.84 in

V%: 7.02

**Similar Dimensions:**

Equivalent:

FAA: *Chest Breadth*

KOREA: *Chest Breadth*

NATO: *Chest Breadth - Skin*

*Chest Breadth—ARMY '66 (Continued)*

NAVY RECRUITS: *Chest Breadth*  
THOUSAND AVIATORS: *Chest Breadth*  
USAF '50: *Chest Breadth*  
USMC: *Chest Breadth*

**Not Equivalent:**

ARMY ARMORED: *Chest Width* - Arms fully extended above head. . .great-  
est width  
ARMY QM: *Chest Breadth* - just above the nipples. . .Firm pressure applied  
BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-ster-  
nale  
FRANCE '65: *Diamètre transverse de la poitrine* - [at the. . .fourth costal  
cartilage ]  
GENEVA: *Transverse Diametre of Thorax (no. 1)* [Xiphoid - Intermediate]  
- at the level of the base of the ensiform cartilage. . .intermediate stage  
as regards. . .extremes of inspiration and of expiration  
GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - at the  
level of the base of the ensiform cartilage †mean of. . .extremes of  
inspiration and of expiration  
GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Interme-  
diate] - at the level of the border of the 4th chondro-sternal articulation  
†intermediate stage as regards. . .extremes of inspiration and of expiration  
GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] -  
at the level of the upper border of the 4th chondro-sternal articulation  
†mean of. . .extremes of inspiration and of expiration  
HRDLICKA: *Transverse Diameter of the Chest [Men]* - fixed branch [of  
Anthropometer] pressed against. . .thorax until it meets with the resis-  
tance of the ribs  
HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the  
fourth costo-sternal articulation  
MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - most  
lateral points on the chest. . .mean of. . .expiration and inspiration  
NATO: *Chest Breadth - Bone* - using strong pressure  
USN: *Chest Breadth* - using strong pressure  
WAC: *Chest Breadth* - arms extended horizontally to the side. . .needles ex-  
tend downward and backward. . .high in the axilla. . .maximum breath

**Indeterminable:**

In the following references, the stage of respiration is not specified.

AAF. *Chest Breadth*  
ARMY ARMORED: *Chest Breadth*

***Chest Breadth—ARMY '66 (Continued)***

WAF RECRUITS: *Chest Breadth*

**See Also:**

*Anterior Chest Width*  
*Posterior Chest Width*

**CHEST BREADTH**

**Reference: ARMY ARMORED**

Flat portion of anthropometer against chest at nipple level. Use only moderate pressure.

Reference cites AAF data for this dimension.

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

ARMY ARMORED: *Chest Width* - Arms fully extended above head as far as possible. . . greatest width

ARMY QM: *Chest Breadth* - Firm pressure applied

BULGARIA: *Transverse Diameter of the Chest* - at the height of mesosternale

FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]* - in the horizontal plane at the level of the base of the ensiform cartilage

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - in the horizontal plane at the level of the base of the ensiform cartilage

GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - in the horizontal plane at the level of the upper border of the 4th chondrosternal articulation

GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - in the horizontal plane at the level of the upper border of the 4th chondrosternal articulation

HRDLICKA: *Transverse Diameter of the Chest [Men]* - arms are lifted somewhat forward and to about 65 degrees outward . . . the fixed

### ***Chest Breadth—ARMY ARMORED (Continued)***

branch is pressed against the right side . . . until it meets with the resistance of the ribs

HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . the fixed branch is pressed against the right side . . . until it meets with the resistance of the ribs

MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - distance between the most lateral points on the chest

NATO: *Chest Breadth - Bone* - instrument at the level of . . . nipples. . . . Angle the tips of the anthropometer arms downward . . . strong pressure

USN: *Chest Breadth* - instrument at the level of . . . nipples. . . . Angle the tips of the anthropometer arms downward . . . strong pressure

WAC: *Chest Breadth* - needles extend downward and backward through and as high in the axilla as possible

#### **Indeterminable:**

Stage of respiration in reference dimension description is not specified.

AAF: *Chest Breadth*

ARMY '66: *Chest Breadth*

FAA: *Chest Breadth*

KOREA: *Chest Breadth*

NATO: *Chest Breadth - Skin*

NAVY RECRUITS: *Chest Breadth*

THOUSAND AVIATORS: *Chest Breadth*

USAF '50: *Chest Breadth*

USMC: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

#### **See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST BREADTH**

#### **Reference: ARMY QM**

†Subject stands erect, with heels together and eyes straight ahead† Breathing normally. Chest is neither expanded nor contracted. Anthropometer held horizontally, just above the nipples. The arms of the anthropometer project downward and backward so as to avoid the back muscles. Firm pressure applied.

*Chest Breadth—ARMY QM (Continued)*

N: 24574  
 $\bar{X}$ : 28.30 cm; 11.14 in  
SD: 1.96 cm; 0.77 in  
V%: [6.93]

**Similar Dimensions:**

**Equivalent:**

NATO: *Chest Breadth - Bone*  
USN: *Chest Breadth*

**Not Equivalent:**

AAF: *Chest Breadth - at nipple level. . . moderate pressure*  
ARMY '66: *Chest Breadth - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally*  
ARMY ARMORED: *Chest Breadth - at nipple level . . . moderate pressure*  
ARMY ARMORED: *Chest Width - Arms fully extended above head . . . greatest width*  
BULGARIA: *Transverse Diameter of the Chest - at the height of meso-sternale. Measured with pelvimeter*  
FAA: *Chest Breadth - at the nipple level, during normal breathing*  
FRANCE '65: *Diamètre transverse de la poitrine - [at the level of the fourth costal cartilage]*  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . in the intermediate stage as regards . . . extremes of inspiration and of expiration*  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration*  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation. †in the intermediate stage as regards . . . the extremes of inspiration and of expiration*  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation. †the mean of . . . extremes of inspiration and of expiration*  
HRDLICKA: *Transverse Diameter of the Chest [Men] - at the line of the nipples . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body*  
HRDLICKA: *Transverse Diameter of the Chest [Women] - at the line of the fourth costo-sternal articulation . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body*  
KOREA: *Chest Breadth - at the level of the nipples*

**Chest Breadth—ARMY QM (Continued)**

MONTAGU: *Chest Breadth* or *Transverse Diameter of the Thorax* - between the most lateral points on the chest. The mean . . . expiration and inspiration . . . breathing normally. [Contact]

NATO: *Chest Breadth - Skin* - at the level of the subject's nipples

NAVY RECRUITS: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally

THOUSAND AVIATORS: *Chest Breadth* - at the level of the nipple during normal breathing

USAF '50: *Chest Breadth* - at the level of the nipples

USMC: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally

WAC: *Chest Breadth* - arms extended horizontally to the side. . . needles extend downward and backward . . . high in the axilla

WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

None

**See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

**CHEST BREADTH**

**Reference: FAA**

The maximum transverse diameter of the chest, at the nipple level, during normal breathing.

N: 681

$\bar{X}$ : 32.75 cm; 12.89 in

SD: 2.33 cm; 0.91 in

V%: 7.12

**Similar Dimensions:**

Equivalent:

ARMY '66: *Chest Breadth*

KOREA: *Chest Breadth*

NATO: *Chest Breadth - Skin*

NAVY RECRUITS: *Chest Breadth*

*Chest Breadth—FAA(Continued)*

THOUSAND AVIATORS: *Chest Breadth*

USAF '50: *Chest Breadth*

USMC: *Chest Breadth*

Not Equivalent:

ARMY ARMORED: *Chest Width* - Arms fully extended above head . . . greatest width

ARMY QM: *Chest Breadth* - just above the nipples . . . Firm pressure applied

BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale

FRANCE '65: *Diamètre transverse de la poitrine* - [at the . . . fourth costal cartilage]

GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Transverse Diameter of the Chest [Men]* - [fixed branch of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs

HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation

MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - most lateral points on the chest . . . mean of . . . expiration and inspiration

NATO: *Chest Breadth - Bone* - using strong pressure

USN: *Chest Breadth* - using strong pressure

WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla . . . maximum breath

Indeterminable:

In the following references, the stage of respiration is not specified.

AAF: *Chest Breadth*

***Chest Breadth—FAA(Continued)***

ARMY ARMORED: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

**See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

**CHEST BREADTH**

**Reference: KOREA**

Subject stands erect with his arms initially raised and then lowered after the instrument is in place. Holding the anthropometer at the level of the nipples, measure the breadth across the chest during normal breathing.

N: 264

$\bar{X}$ : 30.47 cm; 11.99 in

SD: 1.92 cm; 0.75 in

V%: 6.30

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Breadth*

FAA: *Chest Breadth*

NATO: *Chest Breadth - Skin*

NAVY RECRUITS: *Chest Breadth*

THOUSAND AVIATORS: *Chest Breadth*

USAF '50: *Chest Breadth*

USMC: *Chest Breadth*

**Not Equivalent:**

ARMY ARMORED: *Chest Width - Arms fully extended above head . . . greatest width*

ARMY QM: *Chest Breadth - just above the nipples . . . Firm pressure applied*

BULGARIA: *Transverse Diameter of the Chest - at the height of meso-sternale*

FRANCE '65: *Diamètre transverse de la poitrine - [at the . . . fourth costal cartilage]*

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]*

### *Chest Breadth—KOREA (Continued)*

- at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Transverse Diameter of the Chest [Men]* - fixed branch [of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs
- HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation
- MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - most lateral points on the chest . . . mean of . . . expiration and inspiration
- NATO: *Chest Breadth - Bone* - using strong pressure
- USN: *Chest Breadth* - using strong pressure
- WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla . . . maximum breath

#### Indeterminable:

In the following references, the stage of respiration is not specified.

AAF: *Chest Breadth*  
ARMY ARMORED: *Chest Breadth*  
WAF RECRUITS: *Chest Breadth*

#### See Also:

*Anterior Chest Width*  
*Posterior Chest Width*

## CHEST BREADTH or TRANSVERSE DIAMETER OF THE THORAX

#### Reference: MONTAGU

(Anthropometer used as sliding compass). The transverse distance between the most lateral points on the chest. The mean of the measurements made at expi-

***Chest Breadth or Transverse Diameter of the Thorax—MONTAGU (Continued)***

ration and inspiration while the subject is breathing normally.

No Data Available

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

AAF: *Chest Breadth* - at nipple level

ARMY '66: *Chest Breadth* - measured at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Breadth* - at nipple level

ARMY ARMORED: *Chest Width* - Arms fully extended above head . . . greatest width

ARMY QM: *Chest Breadth* - just above the nipples. [Anthropometer] . . . arms . . . project downward and backward . . . Firm pressure

BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale. Measured with pelvimeter

FAA: *Chest Breadth* - at the nipple level

FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]* - at the level of the base of the ensiform cartilage . . . in the intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - at the level of the upper border of the 4th chondro-sternal articulation. †in the intermediate stage as regards . . . the extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the 4th chondro-sternal articulation. †the mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Transverse Diameter of the Chest [Men]* - at the line of the nipples . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body . . . fixed branch pressed . . . until it meets with the resistance of the ribs

HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body . . . fixed

***Chest Breadth or Transverse Diameter of the Thorax—MONTAGU (Continued)***

branch pressed . . . until it meets with the resistance of the ribs.

KOREA: *Chest Breadth* - at the level of the nipples

NATO: *Chest Breadth - Bone* - instrument at the level of the subject's nipples . . . using strong pressure to compress the flesh. Angle the tips of the anthropometer downward slightly

NATO: *Chest Breadth - Skin* - at the level of the subject's nipples

NAVY RECRUITS: *Chest Breadth* - at the level of the nipples

THOUSAND AVIATORS: *Chest Breadth* - at the level of the nipple

USAF '50: *Chest Breadth* - at the level of the nipples

USMC: *Chest Breadth* - measured at the level of the nipples

USN: *Chest Breadth* - instrument at the level of the subject's nipples . . . using strong pressure to compress the flesh. Angle the tips of the anthropometer downward slightly

WAC: *Chest Breadth* - arms extended horizontally to the side. . . needles extend downward and backward . . . high in the axilla

WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

None

**See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST BREADTH**

**Reference: NAVY RECRUITS**

Subject stands erect, with his arms initially raised and then lowered after the anthropometer is in place. The breadth of the chest is measured at the level of the nipples during normal breathing. An anthropometer is used, and is held horizontally.

N: 4092

$\bar{X}$ : 30.17 cm; 11.88 in

SD: 2.05 cm; 0.81 in

V%: 6.81

**Similar Dimensions:**

Equivalent:

ARMY '66: *Chest Breadth*

**Chest Breadth—NAVY RECRUITS (Continued)**

FAA: Chest Breadth  
KOREA: Chest Breadth  
NATO: Chest Breadth - Skin  
THOUSAND AVIATORS: Chest Breadth  
USAF '50: Chest Breadth  
USMC: Chest Breadth

**Not Equivalent:**

ARMY ARMORED: Chest Width - Arms fully extended above head . . . greatest width  
ARMY QM: Chest Breadth - just above the nipples . . . Firm pressure applied  
BULGARIA: Transverse Diameter of the Chest - at the height of meso-sternale  
FRANCE '65: Diamètre transverse de la poitrine - [at the . . . fourth costal cartilage]  
GENEVA: Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration  
GENEVA: Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration  
GENEVA: Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration  
GENEVA: Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration  
HRDLICKA: Transverse Diameter of the Chest [Men] - fixed branch [of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs  
HRDLICKA: Transverse Diameter of the Chest [Women] - at the line of the fourth costo-sternal articulation  
MONTAGU: Chest Breadth or Transverse Diameter of the Thorax - most lateral points on the chest . . . mean of . . . expiration and inspiration  
NATO: Chest Breadth - Bone - using strong pressure  
USN: Chest Breadth - using strong pressure  
WAC: Chest Breadth - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla . . . maximum breath

**Indeterminable:**

In the following references, the stage of respiration is not specified.

### ***Chest Breadth—NAVY RECRUITS (Continued)***

AAF: *Chest Breadth*

ARMY ARMORED: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

#### **See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST BREADTH**

#### **Reference: THOUSAND AVIATORS**

†measured at the level of the nipple during normal breathing † Maximal width with subject's arms at his sides.

N: 645

$\bar{X}$ : 30.73 cm; 12.10 in

SD: 1.74 cm; 0.69 in

V%: [5.66]

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY '66: *Chest Breadth*

FAA: *Chest Breadth*

KOREA: *Chest Breadth*

NATO: *Chest Breadth - Skin*

NAVY RECRUITS: *Chest Breadth*

USAF '50: *Chest Breadth*

USMC: *Chest Breadth*

##### **Not Equivalent:**

ARMY ARMORED: *Chest Width - Arms fully extended above head . . . greatest width*

ARMY QM: *Chest Breadth - just above the nipples . . . Firm pressure applied*

BULGARIA: *Transverse Diameter of the Chest - at the height of meso-sternale*

FRANCE '65: *Diamètre transverse de la poitrine - [at the . . . fourth costal cartilage]*

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]*

### ***Chest Breadth—THOUSAND AVIATORS (Continued)***

- at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Transverse Diameter of the Chest [Men]* - fixed branch [of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs

HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation

MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - most lateral points on the chest . . . mean of . . . expiration and inspiration

NATO: *Chest Breadth - Bone* - using strong pressure

USN: *Chest Breadth* - using strong pressure

WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla . . . maximum breath

#### **Indeterminable:**

In the following references, the stage of respiration is not specified.

AAF: *Chest Breadth*

ARMY ARMORED: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

#### **See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST BREADTH**

#### **Reference: USAF '50**

Subject stands erect with his arms initially raised and then lowered after the instrument is in place. Holding the anthropometer at the level of the nipples,

***Chest Breadth—USAF '50 (Continued)***

measure the breadth across the chest during normal breathing.

N: 4058  
 $\bar{X}$ : 30.56 cm; 12.03 in  
SD: 2.04 cm; 0.80 in  
V%: 6.68

**Similar Dimensions:**

ARMY '66: *Chest Breadth*  
FAA: *Chest Breadth*  
KOREA: *Chest Breadth*  
NATO: *Chest Breadth - Skin*  
NAVY RECRUITS: *Chest Breadth*  
THOUSAND AVIATORS: *Chest Breadth*  
USMC: *Chest Breadth*

**Not Equivalent:**

ARMY ARMORED: *Chest Width - Arms fully extended above head . . . greatest width*  
ARMY QM: *Chest Breadth - just above the nipples . . . Firm pressure applied*  
BULGARIA: *Transverse Diameter of the Chest - at the height of meso-sternale*  
FRANCE '65: *Diamètre transverse de la poitrine - [at the . . . fourth costal cartilage]*  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration*  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration*  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration*  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration*  
HRDLICKA: *Transverse Diameter of the Chest [Men] - fixed branch [of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs*  
HRDLICKA: *Transverse Diameter of the Chest [Women] - at the line of the fourth costo-sternal articulation*  
MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax - most*

### ***Chest Breadth—USAF '50 (Continued)***

lateral points on the chest. . . . mean of . . . expiration and enspiration  
NATO: *Chest Breadth - Bone* - using strong pressure  
USN: *Chest Breadth* - using strong pressure  
WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles  
extend downward and backward . . . high in the axilla . . . maximum breath

Indeterminable:

In the following references, the stage of respiration is not specified.

AAF: *Chest Breadth*  
ARMY ARMORED: *Chest Breadth*  
WAF RECRUITS: *Chest Breadth*

#### **See Also:**

*Anterior Chest Width*  
*Posterior Chest Width*

## **CHEST BREADTH**

#### **Reference: USMC**

Subject stands erect, with his arms initially raised and then lowered after the anthropometer is in place. The breadth of the chest is measured at the level of the nipples during normal breathing. An anthropometer is used, and is held horizontally.

N: 2006  
 $\bar{X}$ : 30.73 cm; 12.10 in  
SD: 1.87 cm; 0.74 in  
V%: 6.13

#### **Similar Dimensions:**

Equivalent:

ARMY '66: *Chest Breadth*  
FAA: *Chest Breadth*  
KOREA: *Chest Breadth*  
NATO: *Chest Breadth - Skin*  
NAVY RECRUITS: *Chest Breadth*  
THOUSAND AVIATORS: *Chest Breadth*  
USAF '50: *Chest Breadth*

*Chest Breadth—USMC (Continued)*

**Not Equivalent:**

- ARMY ARMORED: *Chest Width* - Arms fully extended above head . . . greatest width
- ARMY QM: *Chest Breadth* - just above the nipples . . . Firm pressure applied
- BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale
- FRANCE '65: *Diamètre transverse de la poitrine* - [at the . . . fourth costal cartilage]
- GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Transverse Diameter of the Chest [Men]* - fixed branch [of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs
- HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation
- MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - most lateral points on the chest . . . mean of . . . expiration and inspiration
- NATO: *Chest Breadth - Bone* - using strong pressure
- USN: *Chest Breadth* - using strong pressure
- WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla . . . maximum breath

**Indeterminable:**

In the following references, the stage of respiration is not specified.

AAF: *Chest Breadth*

ARMY ARMORED: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

**See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## CHEST BREADTH

### Reference: USN

Subject stands erect with his arms initially raised and then lowered when the instrument is in place. Holding the instrument at the level of the subject's nipples, measure the horizontal breadth of the rib cage, using strong pressure to compress the flesh. Angle the tips of the anthropometer arms downward slightly to ensure that they do not slip between the ribs.

N: 1549  
 $\bar{X}$ : 32.72 cm; 12.88 in  
SD: 2.07 cm; 0.81 in  
V%: 6.32

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Chest Breadth*  
NATO: *Chest Breadth - Bone*

#### Not Equivalent:

AAF: *Chest Breadth* - at nipple level . . . moderate pressure  
ARMY '66: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally  
ARMY ARMORED: *Chest Breadth* - at nipple level . . . moderate pressure  
ARMY ARMORED: *Chest Width* - Arms fully extended above head . . . greatest width  
BULGARIA: *Transverse Diameter of the Chest* - at the height of mesosternale. Measured with pelvimeter  
FAA: *Chest Breadth* - at the nipple level, during normal breathing  
FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]* - at the level of the base of the ensiform cartilage. . . in the intermediate stage as regards . . . extremes of inspiration and of expiration  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - at the level of the upper border of the 4th chondro-sternal articulation. in the intermediate stage as regards . . . extremes of inspiration and of expiration  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the 4th chondro-sternal articulation †mean

### ***Chest Breadth—USN (Continued)***

of . . . extremes of inspiration and of expiration  
HRDLICKA: *Transverse Diameter of the Chest [Men]* - at the line of the nipples . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body  
HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . forearms at about right angles . . . arms . . . forward . . . 65 degrees outward from the body  
KOREA: *Chest Breadth* - at the level of the nipples  
MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - between the most lateral points on the chest. The mean . . . expiration and inspiration . . . breathing normally. [Contact]  
NATO: *Chest Breadth - Skin* - at the level of the subject's nipples  
NAVY RECRUITS: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally  
THOUSAND AVIATORS: *Chest Breadth* - at the level of the nipple during normal breathing  
USAF '50: *Chest Breadth* - at the level of the nipples  
USMC: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally  
WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla  
WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

None

### **See Also:**

*Anterior Chest Width*  
*Posterior Chest Width*

## **CHEST BREADTH**

### **Reference: WAC**

†Subject stood erect without stretching, eyes on an imaginary horizon† with arms extended horizontally to the side. Anthropometer held in front of subject and parallel to the floor. The needles extend downward and backward through and as high in the axilla as possible without exerting pressure. Measurement taken as the maximum breadth without denting the skin.

N: 3350  
 $\bar{X}$ : 29.47 cm; 11.60 in  
SD: 2.32 cm; 0.91 in  
V%: [7.87]

*Chest Breadth—WAC (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

- AAF: *Chest Breadth* - at nipple level . . . moderate pressure
- ARMY '66: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally
- ARMY ARMORED: *Chest Breadth* - at nipple level . . . moderate pressure
- ARMY ARMORED: *Chest Width* - Arms fully extended above head . . . greatest width
- ARMY QM: *Chest Breadth* - Breathing normally. Anthropometer . . . just above the nipples . . . arms . . . project downward and backward . . . Firm pressure
- BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale. Measured with pelvimeter
- FAA: *Chest Breadth* - at the nipple level, during normal breathing
- FRANCE '65: *Diamètre transverse de la poitrine* - [calm respiration . . . at the level of the fourth costal cartilage]
- GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]* - at the level of the base of the ensiform cartilage . . . in the intermediate stage as regards . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - at the level of the upper border of the 4th chondro-sternal articulation. in the intermediate stage as regards . . . the extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the 4th chondro-sternal articulation. †the mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Transverse Diameter of the Chest [Men]* - at the line of the nipples . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body . . . fixed branch pressed . . . until it meets with the resistance of the ribs
- HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body . . . fixed branch pressed . . . until it meets with the resistance of the ribs
- KOREA: *Chest Breadth* - at the level of the nipples . . . during normal breathing
- MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - between

### ***Chest Breadth—WAF (Continued)***

the most lateral points on the chest. The mean . . . expiration and inspiration . . . breathing normally

NATO: *Chest Breadth - Bone* - instrument at the level of the subject's nipples . . . using strong pressure to compress the flesh. Angle the tips of the anthropometer downward slightly

NATO: *Chest Breadth - Skin* - at the level of the subject's nipples . . . during normal breathing.

NAVY RECRUITS: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally.

THOUSAND AVIATORS. *Chest Breadth* - at the level of the nipple during normal breathing

USAF '50: *Chest Breadth* - at the level of the nipples . . . during normal breathing

USMC: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally

USN: *Chest Breadth* - instrument at the level of the subject's nipples . . . using strong pressure to compress the flesh. Angle the tips of the anthropometer downward slightly

WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

None

#### **See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST BREADTH**

### **Reference: WAF RECRUITS**

Subject stands erect with her arms slightly raised. Measure the chest breadth with the anthropometer caliper held horizontally at the level of the nipples, after the subject's arms have been lowered.

N: 834

$\bar{X}$ : 25.25 cm; 9.94 in

SD: 1.40 cm; 0.55 in

V%: 5.55

### **Similar Dimensions:**

Equivalent:

*Chest Breadth--WAF RECRUITS (Continued)*

None

Not Equivalent:

ARMY ARMORED: *Chest Width* - Arms fully extended above head as far as possible . . . greatest width

ARMY QM: *Chest Breadth* - Firm pressure applied

BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale.

FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]

GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Intermediate] - in the horizontal plane at the level of the base of the ensiform cartilage

GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - in the horizontal plane at the level of the base of the ensiform cartilage

GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Intermediate] - in the horizontal plane at the level of the upper border of the 4th chondro-sternal articulation.

GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] - in the horizontal plane at the level of the upper border of the 4th chondro-sternal articulation

HRDLICKA: *Transverse Diameter of the Chest [Men]* - arms are lifted somewhat forward and to about 65 degrees outward . . . the fixed branch is pressed against the right side . . . until it meets with the resistance of the ribs

HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . the fixed branch is pressed against the right side . . . until it meets with the resistance of the ribs

MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - distance between the most lateral points on the chest.

NATO: *Chest Breadth - Bone* - instrument at the level of . . . nipples . . . Angle the tips of the anthropometer arms downward . . . strong pressure

USN: *Chest Breadth* - instrument at the level of . . . nipples . . . Angle the tips of the anthropometer arms downward . . . strong pressure

WAC: *Chest Breadth* - needles extend downward and backward through and as high in the axilla as possible

Indeterminable:

Stage of respiration in reference dimension description is not specified.

AAF: *Chest Breadth*

ARMY '66: *Chest Breadth*

ARMY ARMORED: *Chest Breadth*

FAA: *Chest Breadth*

### *Chest Breadth—WAF RECRUITS (Continued)*

KOREA: *Chest Breadth*  
NATO: *Chest Breadth - Skin*  
NAVY RECRUITS: *Chest Breadth*  
THOUSAND AVIATORS: *Chest Breadth*  
USAF '50: *Chest Breadth*  
USMC: *Chest Breadth*

#### **See Also:**

*Anterior Chest Width*  
*Posterior Chest Width*

### **CHEST BREADTH — BONE**

#### **Reference: NATO**

Subject stands erect with his arms initially raised and then lowered when the instrument is in place. Holding the instrument at the level of the subject's nipples, measure the horizontal breadth of the rib cage, using strong pressure to compress the flesh. Angle the tips of the anthropometer arms downward slightly to ensure that they do not slip between the ribs.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 28.61 cm; 11.26 in	28.39 cm; 11.18 in	28.80 cm; 11.34 in
SD: 1.69 cm; 0.67 in	1.78 cm; 0.70 in	1.66 cm; 0.65 in
V%: 5.89	6.27	5.75

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY QM: *Chest Breadth*  
USN: *Chest Breadth*

##### **Not Equivalent:**

AAF: *Chest Breadth* - at nipple level . . . moderate pressure  
ARMY '66: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally  
ARMY ARMORED: *Chest Breadth* - at nipple level . . . moderate pressure  
ARMY ARMORED: *Chest Width* - Arms fully extended above head . . . greatest width

*Chest Breadth—Bone—NATO (Continued)*

- BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale. Measured with pelvimeter
- FAA: *Chest Breadth* - at the nipple level, during normal breathing
- FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]
- GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . in the intermediate stage as regards . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 1)* [Xiphoid - Mean] - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation. †in the intermediate stage as regards . . . the extremes of inspiration and of expiration
- GENEVA: *Transverse Diameter of Thorax (no. 2)* [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation. †the mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Transverse Diameter of the Chest [Men]* - at the line of the nipples . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body
- HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body
- KOREA: *Chest Breadth* - at the level of the nipples
- MONTAGU: *Chest Breadth* or *Transverse Diameter of the Thorax* - between the most lateral points on the chest. The mean . . . expiration and inspiration . . . breathing normally. [Contact.]
- NATO: *Chest Breadth - Skin* - at the level of the subject's nipples
- NAVY RECRUITS: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally
- THOUSAND AVIATORS: *Chest Breadth* - at the level of the nipple during normal breathing
- USAF '50: *Chest Breadth* - at the level of the nipples
- USMC: *Chest Breadth* - measured at the level of the nipples during normal breathing . . . anthropometer . . . held horizontally
- WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla
- WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

None

See Also:

***Chest Breadth—Bone—NATO (Continued)***

*Anterior Chest Width*  
*Posterior Chest Width*

**CHEST BREADTH — SKIN**

**Reference: NATO**

Subject stands erect with his arms initially raised and then lowered when the instrument is in place. Holding the instrument at the level of the subject's nipples, measure the horizontal breadth of the chest with light skin contact during normal breathing.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 31.24 cm; 12.30 in	30.94 cm; 12.18 in	31.76 cm; 12.50 in
SD: 1.88 cm; 0.74 in	1.97 cm; 0.78 in	1.84 cm; 0.72 in
V%: 6.00	6.35	5.79

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Breadth*  
 FAA: *Chest Breadth*  
 KOREA: *Chest Breadth*  
 NAVY RECRUITS: *Chest Breadth*  
 THOUSAND AVIATORS: *Chest Breadth*  
 USAF '50: *Chest Breadth*  
 USMC: *Chest Breadth*

**Not Equivalent:**

ARMY ARMORED: *Chest Width - Arms fully extended above head . . . greatest width*  
 ARMY QM: *Chest Breadth - just above the nipples . . . Firm pressure applied*  
 BULGARIA: *Transverse Diameter of the Chest - at the height of meso-sternale*  
 FRANCE '65: *Diamètre transverse de la poitrine - [at the . . . fourth costal cartilage]*  
 GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]*  
 - at the level of the base of the ensiform cartilage . . . intermediate stage as regards . . . extremes of inspiration and of expiration

### ***Chest Breadth—Skin—NATO (Continued)***

GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - at the level of the upper border of the 4th chondro-sternal articulation †intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the 4th chondro-sternal articulation †mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Transverse Diameter of the Chest [Men]* - fixed branch [of Anthropometer] pressed against . . . thorax until it meets with the resistance of the ribs

HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation

MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - most lateral points on the chest . . . mean of . . . expiration and inspiration

NATO: *Chest Breadth - Bone* - using strong pressure

USN: *Chest Breadth* - using strong pressure

WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla . . . maximum breath

#### **Indeterminable:**

In the following references, the stage of respiration is not specified.

AAF: *Chest Breadth*

ARMY ARMORED: *Chest Breadth*

WAF RECRUITS: *Chest Breadth*

#### **See Also:**

*Anterior Chest Width*

*Posterior Chest Width*

## **CHEST CIRCUMFERENCE**

#### **Reference: AAF**

Horizontal circumference just above nipples. Do not tighten the tape; merely contact all around. Chest neither expanded nor collapsed; take during quiet breathing.

*Chest Circumference—AAF (Continued)*

<i>Cadets</i>	<i>Gunners</i>
N: 2954	584
Median: 90.70 cm; 35.7 in	90.05 cm; 34.5 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

ARMY ARMORED: *Chest Circumference*  
 ARMY AVIATORS: *Chest Circumference*  
 COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]  
 THAI: *Chest Circumference*  
 TUFTS: *Chest Circumference*  
 VIETNAM: *Chest Circumference*

**Not Equivalent:**

ARMY '66: *Chest Circumference*—maximum . . . circumference  
 AUSTRALIA: *Chest* [*Circumference*]—well up under the armpits  
 BELGIUM: *Périmètre thoracique* [*Expiration*]—[exhales . . . as deeply as possible]  
 BELGIUM: *Périmètre thoracique* [*Inspiration*]—[inhales as deeply as possible]  
 BELGIUM: *Périmètre thoracique* [*Mean*]—[maximal and minimal . . . divided by two]  
 BULGARIA: *Chest Circumference at Pause* [*Men*] — tape passes behind below the lower edges of the shoulder blades  
 BULGARIA: *Chest Circumference at Pause* [*Women*]—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
 BULGARIA: *Chest Circumference upon Exhaling* [*Men*]—maximum amount of air exhaled  
 BULGARIA: *Chest Circumference upon Exhaling* [*Women*]—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
 BULGARIA: *Chest Circumference upon Inhaling* [*Men*]—maximum amount of air inhaled  
 BULGARIA: *Chest Circumference upon Inhaling* [*Women*]—maximum amount of air inhaled (the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

*Chest Circumference—AAF (Continued)*

- COMAS: *Chest Circumference* [Axillary, Calm Respiration]—just below the armpits
- COMAS: *Chest Circumference* [Axillary, Full Exhalation]—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference* [Axillary, Full Inhalation]—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference* [Fourth Rib, Calm Respiration, Women]—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women]—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women]—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men]—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration]—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation]—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation]—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mameonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoïdien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoïdien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage (intermediate stage)
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage (mean of inspiration and expiration)
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing

*Chest Circumference—AAF (Continued)*

- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[posteriorly directly under . . . scapula]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space
- USAF '50: *Chest Circumference*—maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference
- USN: *Chest Circumference*—maximum . . . during normal breathing
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]
- WOMEN: *Bust Girth*—maximum girth [Measured on women.]

*Chest Circumference—AAF (Continued)*

WOMEN: *Chest Girth at Armscye* — at the level of the armscye [Measured on women.]

**Indeterminable:**

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: ARMY '66**

Subject stands erect, with his arms initially raised and then lowered after the tape is in place. The maximum horizontal circumference of the chest is measured at the level of the nipples during normal breathing. A steel tape is used.

N: 6682  
 $\bar{X}$ : 93.75 cm; 36.91 in  
SD: 6.68 cm; 2.63 in  
V%: 7.14

**Similar Dimensions:**

**Equivalent:**

FAA: *Chest Circumference*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]

*Chest Circumference—ARMY '66 (Continued)*

- BELGIUM: *Périmètre thoracique* [Inspiration]—[inhales as deeply as possible ]
- BELGIUM: *Périmètre thoracique* [Mean]—[maximal and minimal . . . divided by two ]
- BULGARIA: *Chest Circumference at Pause* [Men]—tape passes behind below the lower edges of the shoulderblades and . . . just under the mamilla in front
- BULGARIA: *Chest Circumference at Pause* [Women]—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling* [Men]—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling* [Women] — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling* [Men]—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling* [Women]—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference* [Axillary, Calm Respiration]—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference* [Axillary, Full Exhalation]—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference* [Axillary, Full Inhalation]—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference* [Fourth Rib, Calm Respiration, Women]—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women]—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women]—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—minimum chest circumference at full exhalation

*Chest Circumference—ARMY '66 (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage (intermediate stage)
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage (mean of . . . inspiration and expiration)
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration

*Chest Circumference—ARMY '66 (Continued)*

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth inter-costal space . . . at maximal inspiration  
THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth inter-costal space  
TUFTS: *Chest Circumference*—just above nipples. . . Chest neither collapsed nor expanded . . . during quiet breathing  
VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing  
WAC: *Breast Circumference*—[Measured on women.]  
WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]  
WAF RECRUITS: *Bust Circumference*—[Measured on women.]  
WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]  
WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]  
WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]  
WOMEN: *Bust Girth*--[Measured on women.]  
WOMEN: *Chest Girth at Armseye* — at the level of the armseye . . . midpoint of respiration [Measured on women.]

Indeterminable:

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]  
ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]  
FRANCE '65: *Périmètre sus-mamelonnaire*--[Precise placement of the tape is uncertain.]

## CHEST CIRCUMFERENCE

Reference: ARMY ARMORED

Horizontal circumference just above nipples. Do not tighten the tape; merely contact all around. Chest neither expanded nor collapsed; take during quiet breathing.

Reference cites AAF data for this dimension.

Similar Dimensions:

Equivalent:

AAF: *Chest Circumference*

*Chest Circumference—ARMY ARMORED (Continued)*

ARMY AVIATORS: *Chest Circumference*

COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*

THAI: *Chest Circumference*

TUFTS: *Chest Circumference*

VIETNAM: *Chest Circumference*

**Not Equivalent:**

ARMY '66: *Chest Circumference*—maximum . . . circumference

AUSTRALIA: *Chest [Circumference]*—well up under the armpits

BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades

BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled

BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled

BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits

COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation

COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation

COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]

*Chest Circumference—ARMY ARMORED (Continued)*

- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women] — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women] — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men] — minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men] — maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration] — at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation] — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation] — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference* — Maximum thoracic circumference
- FRANCE '55: *Périmètre thoracique* [Expiration] — [at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration] — [at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [Mean] — [at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '55: *Périmètre sus-mamelonnaire en inspiration forcée* — [forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoïdien au repos* — [tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoïdien en inspiration forcée* — [forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate] — base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [Mean] — base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference* — maximum . . . during normal breathing
- KOREA: *Chest Circumference* — maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration* — [maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration* — [inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen* — [high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . inhale as deeply as possible]

*Chest Circumference—ARMY ARMORED (Continued)*

MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]

MONTAGU: *Axillary Chest Girth* — well up in the axillary fossae

MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale

NATO: *Chest Circumference*—maximum . . . during normal breathing

NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference

THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space

USAF '50: *Chest Circumference*—maximum . . . during normal breathing

USMC: *Chest Circumference*—maximum . . . circumference

USN: *Chest Circumference*—maximum . . . during normal breathing

WAC: *Breast Circumference*—passing over both nipples [Measured on women.]

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armseye* — at the level of the armseye [Measured on women.]

Indeterminable:

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamellonnaire*—[Precise placement of the tape is uncertain.]

## CHEST CIRCUMFERENCE

Reference: ARMY AVIATORS

The distance around the chest at nipple level, taken during normal breathing.

N: 500  
 $\bar{X}$ : 95.81 cm; 37.72 in  
SD: 5.26 cm; 2.07 in  
V%: [5.49]

### Similar Dimensions:

#### Equivalent:

AAF: *Chest Circumference*  
ARMY ARMORED: *Chest Circumference*  
COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]  
THAI: *Chest Circumference*  
TUFTS: *Chest Circumference*  
VIETNAM: *Chest Circumference*

#### Not Equivalent:

ARMY '66: *Chest Circumference*—maximum . . . circumference  
AUSTRALIA: *Chest* [Circumference]—well up under the armpits  
BELGIUM: *Périmètre thoracique* [Expiration]—[exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique* [Inspiration]—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique* [Mean]—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause* [Men] — tape passes behind below the lower edges of the shoulderblades  
BULGARIA: *Chest Circumference at Pause* [Women]—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling* [Men]—maximum amount of air exhaled  
BULGARIA: *Chest Circumference upon Exhaling* [Women]—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Inhaling* [Men]—maximum amount of air inhaled  
BULGARIA: *Chest Circumference upon Inhaling* [Women]—maximum amount of air inhaled (the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

*Chest Circumference—ARMY AVIATORS (Continued)*

- COMAS: *Chest Circumference* [Axillary, Calm Respiration]—just below the armpits
- COMAS: *Chest Circumference* [Axillary, Full Exhalation]—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference* [Axillary, Full Inhalation]—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference* [Fourth Rib, Calm Respiration, Women]—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women]—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women]—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men]—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration]—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation]—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation]—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing

*Chest Circumference—ARMY AVIATORS (Continued)*

- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space
- USAF '50: *Chest Circumference*—maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference
- USN: *Chest Circumference*—maximum . . . during normal breathing
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]
- WOMEN: *Bust Girth*—maximum girth [Measured on women.]

*Chest Circumference—ARMY AVIATORS (Continued)*

WOMEN: *Chest Girth at Armscye* — at the level of the armscye [Measured on women.]

Indeterminable:

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

## CHEST CIRCUMFERENCE

Reference: ARMY QM

Erect posture. Start with the tape on the areolae above the nipples. The tape is carried around horizontally. The subject is then allowed to lower his arms and the circumference is recorded, with the tape held firmly.

N: 24470

$\bar{X}$ : 92.41 cm; 36.38 in

SD: 5.97 cm; 2.34 in

V%: [6.46]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits

BELGIUM: *Périmètre thoracique [Mean]*—maximal and minimal . . . divided by two

BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades

BULGARIA: *Chest Circumference at Pause [Women]*—tape passes behind below the lower edges of the shoulderblades and . . . immediately below the mammary glands kept in their uppermost position [Measured on women.]

BULGARIA: *Chest Circumference upon Exhaling [Men]*—below the lower edges of the shoulderblades

BULGARIA: *Chest Circumference upon Exhaling [Women]* — below the lower edges of the shoulderblades and . . . immediately below the mammary glands kept in their uppermost position [Measured on women.]

*Chest Circumference—ARMY QM (Continued)*

BULGARIA: *Chest Circumference upon Inhaling [Men]*—below the lower edges of the shoulderblades

BULGARIA: *Chest Circumference upon Inhaling [Women]*—below the lower edges of the shoulderblades and . . . immediately below the mammary glands kept in their uppermost position

COMAS: *Chest Circumference [Axillary, Calm Respiration]*—taken just below the armpits

COMAS: *Chest Circumference [Axillary, Full Exhalation]*—taken just below the armpits

COMAS: *Chest Circumference [Axillary, Full Inhalation]*—taken just below the armpits

COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]

COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]

COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]

COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . under the inferior angle of the scapula

COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . under the inferior angle of the scapula

COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . under the inferior angle of the scapula

FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process]

FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process]

FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]

FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]

FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[tape . . . passed around level with the xiphoid process]

GENEVA: *Thoracic Circumference [Intermediate]*—base of ensiform cartilage

GENEVA: *Thoracic Circumference [Mean]*—base of ensiform cartilage

MARTIN: *Umfang der Brust bei Expiration*—[high in axilla]

MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla]

*Chest Circumference—ARMY QM (Continued)*

MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]

MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae]

MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae]

MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]

MONTAGU: *Axillary Chest Girth*—well up into the axillary fossae. Mean reading

MONTAGU: *Mesosternale Chest Girth*—at the level of mesosternale. Mean

THOUSAND AVIATORS: *Chest Circumference Expiration*—taken at the fourth intercostal space

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space

WAC: *Breast Circumference*—[Measured on women.]

WAC: *Chest Circumference*—just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—[Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)* — below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference* — circumference over breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armseye* — at the level of the armseye [Measured on women.]

**Indeterminable:**

The reference dimension description does not specify status of respiration.

AAF: *Chest Circumference*

ARMY '66: *Chest Circumference*

ARMY ARMORED: *Chest Circumference*

ARMY AVIATORS: *Chest Circumference*

*Chest Circumference—ARMY QM (Continued)*

BELGIUM: *Périmètre thoracique [Expiration]*  
BELGIUM: *Périmètre thoracique [Inspiration]*  
COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*  
COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*  
COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*  
FAA: *Chest Circumference*  
FRANCE '65: *Périmètre sus-mamelonnaire*  
FRANCE 65: *Périmètre sus-mamelonnaire en inspiration forcée*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
THAI: *Chest Circumference*  
TUFTS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*  
VIETNAM: *Chest Circumference*

**CHEST CIRCUMFERENCE**

**Reference: FAA**

Maximum thoracic circumference recorded during normal breathing at the level of the nipples.

N: 681  
 $\bar{X}$ : 95.95 cm; 38.17 in  
SD: 6.49 cm; 2.56 in  
V%: 6.70

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
JAPAN: *Chest Circumference*

*Chest Circumference—FAA (Continued)*

KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the manubria in front  
BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled  
BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled  
BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]  
COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation  
COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation  
COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation  
COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]

*Chest Circumference—FAA (Continued)*

- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage (intermediate stage)
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage (mean of . . . inspiration and expiration)
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]

*Chest Circumference—FAA (Continued)*

- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples. . . Chest neither collapsed nor expanded . . . during quiet breathing
- VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—[Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]
- WOMEN: *Bust Girth*—[Measured on women.]
- WOMEN: *Chest Girth at Armscye* — at the level of the armscye . . . midpoint of respiration [Measured on women.]

**Indeterminable:**

- ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]
- ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

*Chest Circumference—FAA (Continued)*

**See Also:**

*Anterior Bust Arc*

**CHEST CIRCUMFERENCE**

**Reference: JAPAN**

Subject stands erect, his arms initially raised then lowered after the tape is in place. Holding the tape in a horizontal plane at the level of the nipples, measure the maximum circumference of the chest during normal breathing.

N: 239  
 $\bar{X}$ : 88.00 cm; 34.65 in  
SD: 3.94 cm; 1.55 in  
V%: 4.50

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
FAA: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mammilla in front

*Chest Circumference—JAPAN (Continued)*

- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation

*Chest Circumference—JAPAN (Continued)*

- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean of . . . inspiration and expiration
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MCNTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples. . . Chest neither collapsed nor expanded . . . during quiet breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing

*Chest Circumference—JAPAN (Continued)*

WAC: *Breast Circumference*—[Measured on women.]

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—[Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—[Measured on women.]

WOMEN: *Chest Girth at Armscye* — at the level of the armscye . . . midpoint of respiration [Measured on women.]

Indeterminable:

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: KOREA**

Subject stands erect, his arms initially raised then lowered after the tape is in place. Holding the tape in a horizontal plane at the level of the nipples, measure the maximum circumference of the chest during normal breathing.

N: 264

$\bar{X}$ : 90.96 cm; 35.81 in

SD: 5.39 cm; 2.12 in

V%: 5.93

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*

FAA: *Chest Circumference*

*Chest Circumference—KOREA (Continued)*

JAPAN: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

Not Equivalent:

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mammilla in front  
BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled  
BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled  
BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]  
COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation  
COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation  
COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation

*Chest Circumference—KOREA (Continued)*

- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean of . . . inspiration and expiration
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]

*Chest Circumference—KOREA (Continued)*

- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples. . . Chest neither collapsed nor expanded . . . during quiet breathing
- VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—[Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]
- WOMEN: *Bust Girth*—[Measured on women.]
- WOMEN: *Chest Girth at Armseye* — at the level of the armseye . . . midpoint of respiration [Measured on women.]

**Indeterminable:**

- ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

*Chest Circumference—KOREA (Continued)*

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]  
FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: NATO**

Subject stands erect, his arms initially raised, then lowered after the tape is in place. Holding the tape in a horizontal plane at the level of the nipples, measure the maximum circumference of the chest during normal breathing.

<i>Turkey</i>	<i>Grecce</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 91.11 cm; 35.87 in	92.51 cm; 36.42 in	94.98 cm; 37.39 in
SD: 5.02 cm; 1.98 in	5.11 cm; 2.01 in	5.26 cm; 2.18 in
V%: 5.51	5.52	5.53

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
FAA: *Chest Circumference*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]

*Chest Circumference—NATO (Continued)*

- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mamilla in front
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation

*Chest Circumference—NATO (Continued)*

- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean of . . . inspiration and expiration
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space

*Chest Circumference—NATO (Continued)*

TUFTS: *Chest Circumference*—just above nipples. . . . Chest neither collapsed nor expanded . . . during quiet breathing

VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing

WAC: *Breast Circumference*—[Measured on women.]

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—[Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—[Measured on women.]

WOMEN: *Chest Girth at Armscye* — at the level of the armscye . . . midpoint of respiration [Measured on women.]

Indeterminable:

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: NAVY RECRUITS**

Subject stands erect, with his arms initially raised and then lowered after the tape is in place. The maximum horizontal circumference of the chest is measured at the level of the nipples during normal breathing. A steel tape is used.

N: 4095

$\bar{X}$ : 93.04 cm; 36.63 in

SD: 6.65 cm; 2.62 in

V%: 7.14

*Chest Circumference—NAVY RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
FAA: *Chest Circumference*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mamilla in front  
BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled  
BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled  
BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]  
COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation

*Chest Circumference—NAVY RECRUITS (Continued)*

- COMAS: *Chest Circumference* [Axillary, Full Exhalation]—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference* [Axillary, Full Inhalation]—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference* [Fourth Rib, Calm Respiration, Women]—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women]—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women]—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men]—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration]—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation]—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation]—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage †mean of . . . inspiration and expiration

*Chest Circumference—NAVY RECRUITS (Continued)*

- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . Inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*— [under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*— [under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossa. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples. . . . Chest neither collapsed nor expanded . . . during quiet breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—[Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]
- WOMEN: *Bust Girth*—[Measured on women.]
- WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . midpoint of respiration [Measured on women.]

*Chest Circumference—NAVY RECRUITS (Continued)*

**Indeterminable:**

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: THAI**

Measured as average circumference of chest during normal breathing, with tape at level of nipples.

N: 2950

$\bar{X}$ : 85.0 cm; 33.5 in

SD: 4.1 cm; 1.6 in

V%: 4.8

**Similar Dimensions:**

**Equivalent:**

AAF: *Chest Circumference*

ARMY ARMORED: *Chest Circumference*

ARMY AVIATORS: *Chest Circumference*

COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]

TUFTS: *Chest Circumference*

VIETNAM: *Chest Circumference*

**Not Equivalent:**

ARMY '66: *Chest Circumference*—maximum . . . circumference

AUSTRIA: *Chest [Circumference]*—well up under the armpits

BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]

*Chest Circumference—THAI (Continued)*

- BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled [the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference

*Chest Circumference—THAI (Continued)*

- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing
- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space
- USAF '50: *Chest Circumference*—maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference
- USN: *Chest Circumference*—maximum . . . during normal breathing
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]

*Chest Circumference—THAI (Continued)*

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye* — at the level of the armscye [Measured on women.]

Indeterminable:

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

## CHEST CIRCUMFERENCE

**Reference: TUFTS**

Horizontal circumference just above nipples. Tape not tightened but merely in contact all around. Chest neither collapsed nor expanded; taken during quiet breathing.

No Data Available

**Similar Dimensions:**

Equivalent:

AAF: *Chest Circumference*

ARMY ARMORED: *Chest Circumference*

ARMY AVIATORS: *Chest Circumference*

COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]

*Chest Circumference—TUFTS (Continued)*

THAI: *Chest Circumference*

VIETNAM: *Chest Circumference*

**Not Equivalent:**

ARMY '66: *Chest Circumference*—maximum . . . circumference

AUSTRALIA: *Chest [Circumference]*—well up under the armpits

BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades

BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled

BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled

BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled [the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits

COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation

COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation

COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]

COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]

COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]

*Chest Circumference—TUFTS (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermedicte]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing
- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternal Chest Girth*—at the level of the mesosternalc
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference

*Chest Circumference—TUFTS (Continued)*

THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space

USAF '50: *Chest Circumference*—maximum . . . during normal breathing

USMC: *Chest Circumference*—maximum . . . circumference

USN: *Chest Circumference*—maximum . . . during normal breathing

WAC: *Breast Circumference*—passing over both nipples [Measured on women.]

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye [Measured on women.]

Indeterminable:

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

## CHEST CIRCUMFERENCE

Reference: USAF '50

Subject stands erect, his arms initially raised then lowered after the tape is in place. Holding the tape in a horizontal plane at the level of the nipples, measure the maximum circumference of the chest during normal breathing.

*Chest Circumference—USAF '50 (Continued)*

N: 4057  
 $\bar{X}$ : 98.55 cm; 38.80 in  
SD: 6.22 cm; 2.45 in  
V%: 6.31

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
FAA: *Chest Circumference*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USMC: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mammilla in front  
BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled  
BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled  
BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]

*Chest Circumference—USAF '50 (Continued)*

- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]

*Chest Circumference—USAF '50 (Continued)*

- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]* — base of the ensiform cartilage †mean of . . . inspiration and expiration
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples. . . . Chest neither collapsed nor expanded . . . during quiet breathing
- VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—[Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]
- WOMEN: *Bust Girth*—[Measured on women.]
- WOMEN: *Chest Girth at Armscye* — at the level of the armscye . . . midpoint of respiration [Measured on women.]

*Chest Circumference—USAF '50 (Continued)*

**Indeterminable:**

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: USMC**

Subject stands erect, with his arms initially raised and then lowered after the tape is in place. The maximum horizontal circumference of the chest is measured at the level of the nipples during normal breathing. A steel tape is used.

N: 2008  
 $\bar{X}$ : 94.25 cm; 37.11 in  
SD: 5.84 cm; 2.30 in  
V%: 6.19

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
FAA: *Chest Circumference*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USN: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing

*Chest Circumference—USMC (Continued)*

- AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted
- BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mamilla in front
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]

*Chest Circumference—USMC (Continued)*

- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean of . . . inspiration and expiration
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration

*Chest Circumference—USMC (Continued)*

THAI: *Chest Circumference*—average circumference . . . during normal breathing

THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space

TUFTS: *Chest Circumference*—just above nipples. . . Chest neither collapsed nor expanded . . . during quiet breathing

VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing

WAC: *Breast Circumference*—[Measured on women.]

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—[Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—[Measured on women.]

WOMEN: *Chest Girth at Armscye* — at the level of the armscye . . . midpoint of respiration [Measured on women.]

**Indeterminable:**

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: USN**

Subject stands erect, his arms initially raised then lowered after the tape is in place.

*Chest Circumference—USN (Continued)*

Holding the tape in a horizontal plane at the level of the nipples, measure the maximum circumference of the chest during normal breathing. [NATO]

N: 1549  
X: 98.85 cm; 38.92 in  
SD: 5.78 cm; 2.27 in  
V%: 5.85

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Circumference*  
FAA: *Chest Circumference*  
JAPAN: *Chest Circumference*  
KOREA: *Chest Circumference*  
NATO: *Chest Circumference*  
NAVY RECRUITS: *Chest Circumference*  
USAF '50: *Chest Circumference*  
USMC: *Chest Circumference*

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing  
AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted  
BELGIUM: *Périmètre thoracique [Expiration]* — [exhales . . . as deeply as possible]  
BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]  
BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]  
BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades and . . . just under the mammilla in front  
BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled  
BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

*Chest Circumference—USN (Continued)*

- BULGARIA:** *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA:** *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled . . . the tape passes immediately below mammary glands kept in their uppermost position [Measured on women.]
- COMAS:** *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS:** *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS:** *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS:** *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS:** *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS:** *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS:** *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS:** *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS:** *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS:** *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS:** *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS:** *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FRANCE '55:** *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55:** *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55:** *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]

*Chest Circumference—USN (Continued)*

- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphôidien au repos*— [tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphôidien en inspiration forcée*— [forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]* — base of the ensiform cartilage †mean of . . . inspiration and expiration
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale. Mean . . . during normal inspiration and expiration
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—just above nipples. . . . Chest neither collapsed nor expanded; . . . during quiet breathing
- VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]

*Chest Circumference—USN (Continued)*

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—[Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—[Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . midpoint of respiration [Measured on women.]

**Indeterminable:**

ARMY AVIATORS: *Chest Circumference*—[Precise status of respiration is not clear.]

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: VIETNAM**

Measured as average circumference of chest during normal breathing, with tape at level of nipples.

N: 2127

$\bar{X}$ : 81.1 cm; 31.9 in

SD: 4.3 cm; 1.7 in

V%: 5.3

**Similar Dimensions:**

**Equivalent:**

AAF: *Chest Circumference*

ARMY ARMORED: *Chest Circumference*

ARMY AVIATORS: *Chest Circumference*

COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]

THAI: *Chest Circumference*

TUFTS: *Chest Circumference*

*Chest Circumference—VIETNAM (Continued)*

**Not Equivalent:**

- ARMY '66: *Chest Circumference*—maximum . . . circumference
- AUSTRALIA: *Chest [Circumference]*—well up under the armpits
- BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—tape passes behind below the lower edges of the shoulderblades
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled [the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation

*Chest Circumference—VIETNAM (Continued)*

- COMAS: *Chest Circumference* [*Xiphoid, Calm Respiration*]—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [*Xiphoid, Full Exhalation*]—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [*Xiphoid, Full Inhalation*]—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference
- FRANCE '55: *Périmètre thoracique* [*Expiration*]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [*Inspiration*]—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique* [*Mean*]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference* [*Intermediate*]—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [*Mean*]—base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing
- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration

*Chest Circumference—VIETNAM (Continued)*

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration  
THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space  
USAF '50: *Chest Circumference*—maximum . . . during normal breathing  
USMC: *Chest Circumference*—maximum . . . circumference  
USN: *Chest Circumference*—maximum . . . during normal breathing  
WAC: *Breast Circumference*—passing over both nipples [Measured on women.]  
WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]  
WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]  
WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]  
WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]  
WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]  
WOMEN: *Bust Girth*—maximum girth [Measured on women.]  
WOMEN: *Chest Girth at Armscye*—at the level of the armscye [Measured on women.]

**Indeterminable:**

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]  
FRANCE '65: *Périmètre sus-mamclonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE**

**Reference: WAC**

†Subject stood erect without stretching, eyes on an imaginary horizon† The arms were raised while the tape was being adjusted and then lowered for the measurement.† Assistant adjusted tape in front and measurer stood behind. Measurement taken horizontally just below the breasts. Normal breathing. [Bra]

N: 8536  
 $\bar{X}$ : 77.51 cm; 30.52 in  
SD: 6.47 cm; 2.46 in  
V%: [8.35]

*Chest Circumference—WAC (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—just above nipples [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples [Measured on men.]

ARMY ARMORED: *Chest Circumference*—just above nipples [Measured on men.]

ARMY AVIATORS: *Chest Circumference*—at nipple level [Measured on men.]

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]

AUSTRALIA: *Chest [Circumference]*—well up under the armpits [Measured on men.]

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front [Measured on men.]

BULGARIA: *Chest Circumference at Pause [Women]*—below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mammilla in front [Measured on men.]

BULGARIA: *Chest Circumference upon Exhaling [Women]*—below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front [Measured on men.]

BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position

COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits

COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation

COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation

*Chest Circumference—WAC (Continued)*

- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference* — Maximum thoracic circumference . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphôidien au repos*—[tape passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphôidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]* — base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]* — base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—nipples [Measured on men.]
- KOREA: *Chest Circumference*— nipples [Measured on men.]

*Chest Circumference—WAC (Continued)*

- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration] [Measured on men.]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply] [Measured on men.]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean] [Measured on men.]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration] [Measured on men.]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible] [Measured on men.]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola] [Measured on men.]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae.
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—nipples [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—at the level of the nipples [Measured on men.]
- THAI: *Chest Circumference*—at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space [Measured on men.]
- TUFTS: *Chest Circumference*—just above nipples [Measured on men.]
- USAF '50: *Chest Circumference*—nipples [Measured on men.]
- USMC: *Chest Circumference*—at the level of the nipples [Measured on men.]
- USN: *Chest Circumference*—nipples [Measured on men.]
- VIETNAM: *Chest Circumference*—nipples [Measured on men.]
- WAC: *Breast Circumference*—passing over both nipples
- WAF RECRUITS: *Bust Circumference*—at the level of the nipples
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts

*Chest Circumference—WAC (Continued)*

WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . [Subject wore a snug bandeaux.]

Indeterminable:

WAF RECRUITS: *Chest Circumference (Under)* — [In the reference dimension description, status of respiration at the time of measurement is not clearly specified.]

See Also:

*Anterior Bust Arc*

## CHEST CIRCUMFERENCE

Reference: WASP

Maximum circumference over breasts. [Bra?]

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 88.85 cm; 34.98 in.	86.87 cm; 34.20 in.
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Circumference* — Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]

ARMY ARMORED: *Chest Circumference*—[Measured on men.]

*Chest Circumference—WASP (Continued)*

- ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing [Measured on men.]
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—well up under the armpits [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples [Measured on men.]

*Chest Circumference—WASP (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples... maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference* — Maximum thoracic circumference [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—nipples . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—nipples . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]

*Chest Circumference—WASP (Continued)*

MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]

MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration

MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration

NATO: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]

NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]

TUFTS: *Chest Circumference*—[Measured on men.]

USAF '50: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]

USMC: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]

USN: *Chest Circumference*—horizontal plane . . . nipples . . . during normal breathing [Measured on men.]

VIETNAM: *Chest Circumference*—average . . . during normal breathing . . . nipples [Measured on men.]

WAC: *Chest Circumference*—horizontally just below the breasts . . . [Bra]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts . . . [Bra]

WAF RECRUITS: *Chest Circumference (Under)*—across the front above the fullness of the breasts . . . [Bra]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

*Chest Circumference—WASP (Continued)*

**Indeterminable:**

The reference dimension does not specify status of respiration or foundation garment.

WAF RECRUITS: *Bust Circumference*

WAC: *Breast Circumference*

WOMEN: *Bust Girth*

**See Also:**

*Anterior Bust Arc*

**CHEST CIRCUMFERENCE AT PAUSE [MEN]**

**Reference: BULGARIA**

[M]easured with centimeter tape. The tape passes behind below the lower edges of the shoulderblades and . . . just under the mammilla in front.

N: 1657

$\bar{X}$ : [90.62 cm; 35.68 in]

Est SD: [5.40 cm; 2.13 in]

Est V%: [5.96]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal circumference just above nipples

ARMY '66: *Chest Circumference*—maximum . . . during normal breathing

ARMY ARMORED: *Chest Circumference*—Horizontal circumference just above nipples

ARMY AVIATORS: *Chest Circumference*—at nipple level

ARMY QM: *Chest Circumference*—tape is . . . horizontally

AUSTRALIA: *Chest [Circumference]*—horizontal

BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]

*Chest Circumference at Pause [Men]—BULGARIA (Continued)*

- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Women]* — immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]* — maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled [the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*— at the height of the fourth chondrosternal articulation. . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]* — at the nipples . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]

*Chest Circumference at Pause [Men]—BULGARIA (Continued)*

- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[The measuring tape, held horizontally]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoïdien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoïdien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[When measured on women.]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale
- NATO: *Chest Circumference*—nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—tape at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—Horizontal circumference just above nipples
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing

*Chest Circumference at Pause [Men]—BULGARIA (Continued)*

VIETNAM: *Chest Circumference*—tape at level of nipples  
WAC: *Breast Circumference*—passing over both nipples [Measured on women.]  
WAC: *Chest Circumference*—just below the breasts [Measured on women.]  
WAF RECRUITS: *Bust Circumference* — maximum dimension during normal breathing [Measured on women.]  
WAF RECRUITS: *Chest Circumference (Over)*—above the fullness of the breasts [Measured on women.]  
WAF RECRUITS: *Chest Circumference (Under)* — below the fullness of the breasts [Measured on women.]  
WASP: *Chest Circumference*—maximum . . . over breasts [Measured on women.]  
WOMEN: *Bust Girth*—maximum girth [Measured on women.]  
WOMEN: *Chest Girth at Armscye* — [Measured on women.]

**Indeterminable:**

COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—[Plane of measuring tape is not clearly specified.]  
MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[Status of respiration in the reference dimension is not clearly specified.]

**CHEST CIRCUMFERENCE AT PAUSE [WOMEN]**

**Reference: BULGARIA**

[M]easured with centimeter tape. The tape passes behind below the lower edges of the shoulderblades and . . . the tape passes immediately below the mammary glands kept in their uppermost position.

N: 1581  
X: [79.74 cm; 31.39 in]  
Est SD: [6.03 cm; 2.37 in]  
Est V%: [7.56]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal . . . just above nipples [Measured on men.]  
ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples [Measured on men.]

*Chest Circumference at Pause [Women]—BULGARIA (Continued)*

- ARMY ARMORED: *Chest Circumference*—just above nipples [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—at nipple level [Measured on men.]
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation [Measured on men.]

*Chest Circumference at Pause [Women]—BULGARIA (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference, nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage [Measured on men.]
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration [Measured on men.]
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under the bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under the bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola . . . pause in breathing . . . posture . . . relaxed]

*Chest Circumference at Pause [Women]—BULGARIA (Continued)*

- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples [Measured on men.]
- THAI: *Chest Circumference*—at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples [Measured on men.]
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- VIETNAM: *Chest Circumference*—average circumference . . . nipples [Measured on men.]
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—horizontally just below the breasts [Breasts not raised.]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . [Bra]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . [Bra]
- WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]
- WOMEN: *Bust Girth*—maximum [bust] girth . . . [Subject wore a snug bandeaux.]

*Chest Circumference at Pause [Women]—BULGARIA (Continued)*

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

Indeterminable:

None

**CHEST CIRCUMFERENCE [AXILLARY, CALM RESPIRATION]**

Reference: COMAS

Axillary chest circumference taken just below the armpits. . . static or normal, taken in a period of calm respiration, between inhalation and exhalation.

No Data Available

Similar Dimensions:

Equivalent:

AUSTRALIA: *Chest [Circumference]*—[When reference dimension is measured on men.]

MONTAGU: *Axillary Chest Girth*—[When measured on same sex as that of reference dimension.]

Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples

ARMY '66: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Circumference*—just above nipples

ARMY AVIATORS: *Chest Circumference*—at nipple level

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples

AUSTRALIA: *Chest [Circumference]*—[When reference dimension is measured on women.]

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammae in front

BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position

*Chest Circumference [Axillary, Calm Respiration]—COMAS (Continued)*

- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mammilla in front
- BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamellaire*—[tape . . . passes around above the two nipples]

*Chest Circumference [Axillary, Calm Respiration]*—COMAS (Continued)

- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage (intermediate stage)
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage
- JAPAN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[When measured on opposite sex as that of reference dimension.]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]
- MONTAGU: *Axillary Chest Girth*—[When measured on opposite sex as that of reference dimension.]
- MONTAGU: *Mesosternale Chest Girth*—[When measured on opposite sex as that of reference dimension.]
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing

*Chest Circumference [Axillary, Calm Respiration]—COMAS (Continued)*

VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing . . . nipples  
WAC: *Breast Circumference*—passing over both nipples. [Bra]  
WAC: *Chest Circumference*—horizontally just below the breasts . . . [Bra]  
WAF RECRUITS: *Bust Circumference*—at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]  
WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . below the fullness of the breasts . . . [Bra]  
WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . below the fullness of the breasts . . . [Bra]  
WASP: *Chest Girth*—maximum . . . over breasts. [Bra?]  
WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]  
WOMEN: *Chest Girth at Armscye*—[Subject wore a snug bandeaux.]

**Indeterminable:**

In the reference dimension, the passage of the tape across the front and back of the subjects' thorax is not specified. Comparability is not determinable when the following are measured on the same sex as that of the reference dimension.

MARTIN: *Umfang der Brust bei ruhigem Atmen*  
MONTAGU: *Mesosternale Chest Girth*

**CHEST CIRCUMFERENCE [AXILLARY, FULL EXHALATION]**

**Reference: COMAS**

Axillary chest circumference taken just below the armpits . . . minimum chest circumference at full exhalation.

No Data Available

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing  
ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing

*Chest Circumference [Axillary, Full Exhalation]—COMAS (Continued)*

ARMY ARMORED: *Chest Circumference*—just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

ARMY AVIATORS: *Chest Circumference* — at nipple level . . . during normal breathing

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples

AUSTRALIA: *Chest [Circumference]*—neither expanded nor contracted

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]* — just under the mamilla in front

BULGARIA: *Chest Circumference at Pause [Women]*—immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Exhaling [Men]*—just under the mamilla in front

BULGARIA: *Chest Circumference upon Exhaling [Women]* — immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front

BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position

COMAS: *Chest Circumference [Axillary, Calm Respiration]* — between inhalation and exhalation

COMAS: *Chest Circumference [Axillary, Full Inhalation]*—at full inhalation

COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation

COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation

COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation

COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation

*Chest Circumference [Axillary, Full Exhalation]—COMAS (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples  
 COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]* — at the nipples  
 . . . maximum chest circumference at full inhalation  
 COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the  
 xiphoid cartilage . . . between inhalation and exhalation  
 COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the  
 xiphoid cartilage  
 COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the  
 xiphoid cartilage . . . at full inhalation  
 FAA: *Chest Circumference* — maximum thoracic circumference . . . during nor-  
 mal breathing . . . nipples  
 FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process]  
 FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . .  
 after deep inhalation]  
 FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . mir-  
 imal and maximal . . . divided by two]  
 FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . .  
 passes around above the two nipples]  
 FRANCE '65: *Périmètre sus-mamelonnaire ex inspiration forcée*—[forced in-  
 spiration . . . tape . . . passes around above the two nipples]  
 FRANCE '65: *Périmètre xiphoidien au repos* — [calm respiration . . . tape . . .  
 passed around level with the xiphoid process]  
 FRANCE '65: *Périmètre xiphoidien en inspiration forcée* — [forced inspiration  
 . . . tape . . . passed around level with the xiphoid process]  
 GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base  
 of the ensiform cartilage †intermediate stage  
 GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the  
 ensiform cartilage †mean . . . of inspiration and expiration  
 JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . .  
 during normal breathing  
 KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . .  
 during normal breathing  
 MARTIN: *Umfang der Brust bei Inspiration*—[inhale deeply]  
 MARTIN: *Umfang der Brust bei Expiration*—[When measured on the oppo-  
 site sex as that of reference dimension]  
 MARTIN: *Umfang der Brust bei ruhigem Atmen*—[record the mean]  
 MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge  
 of the scapulae . . . over the areola]  
 MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge  
 of the scapulae . . . over the areola . . . inhale as deeply as possible]  
 MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen* — [under bottom  
 edge of the scapulae . . . over the areola . . . pause in breathing]  
 MONTAGU: *Axillary Chest Girth*—Mean reading . . . during normal inspira-  
 tion and expiration

*Chest Circumference [Axillary, Full Exhalation]—COMAS (Continued)*

- MONTAGU: *Mesosternale Chest Girth*—Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—average circumference . . . during normal breathing
- VIETNAM: *Chest Circumference* — average circumference . . . during normal breathing . . . nipples
- WAC: *Breast Circumference*—passing over both nipples
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing
- WASP: *Chest Circumference*—maximum . . . over breasts
- WOMEN: *Bust Girth*—maximum girth
- WOMEN: *Chest Girth at Armscye*—midpoint of respiration

**Indeterminable:**

- MARTIN: *Umfang der Brust bei Expiration* — [In the reference dimension, passage of measuring tape across chest is not described.]

## CHEST CIRCUMFERENCE [AXILLARY, FULL INHALATION]

Reference: COMAS

Axillary chest circumference taken just below the armpits. . . . maximum chest circumference at full inhalation.

No Data Available

### Similar Dimensions:

#### Equivalent:

MARTIN: *Umfang der Brust bei Inspiration*—[When measured on same sex as that of reference dimension.]

#### Not Equivalent:

AAF: *Chest Circumference*—just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

ARMY '66: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples

AUSTRALIA: *Chest [Circumference]*—neither expanded nor contracted

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . ex-hales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front

BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled (just under the mamilla in front

BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Inhaling [Men]*—just under the mamilla in front

*Chest Circumference [Axillary, Full Inhalation]—COMAS (Continued)*

- BULGARIA: *Chest Circumference upon Inhaling [Women]*—tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage †intermediate stage

*Chest Circumference [Axillary, Full Inhalation]—COMAS (Continued)*

- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[Maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[When measured on opposite sex as that of reference dimension.]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[slight breathing movements . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—[Mean . . . during normal inspiration and expiration]
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples

*Chest Circumference [Axillary, Full Inhalation]—COMAS (Continued)*

WAC: *Breast Circumference*—passing over both nipples

WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing

WASP: *Chest Circumference*—maximum . . . over breasts

WOMEN: *Bust Girth*—maximum girth

WOMEN: *Chest Girth At Armscye*—midpoint of respiration

Indeterminable:

None

## CHEST CIRCUMFERENCE EXPIRATION

Reference: THOUSAND AVIATORS

†[T]aken at the fourth intercostal space with flexible steel tape, applying minimal pressure† Chest circumference at maximal expiration.

N: 675

$\bar{X}$ : 100.25 cm; 39.47 in

SD: 5.84 cm; 2.30 in

V%: [5.83]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

*Chest Circumference Expiration—THOUSAND AVIATORS (Continued)*

- ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing
- ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhaled as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximum and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—just under the mammilla in front
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]

*Chest Circumference Expiration—THOUSAND AVIATORS (Continued)*

- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphœdien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphœdien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola]

*Chest Circumference Expiration—THOUSAND AVIATORS (Continued)*

- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . over breasts [Measured on women.]
- WOMEN: *Bust Girth*—maximum girth [Measured on women.]
- WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration [Measured on women.]

*Chest Circumference Expiration—THOUSAND AVIATORS (Continued)*

Indeterminable:

None

**CHEST CIRCUMFERENCE [FOURTH RIB, CALM RESPIRATION, WOMEN]**

Reference: COMAS

Chest circumference . . . at the height of the fourth chondrosternal articulation . . . static or normal, taken in a period of calm respiration, between inspiration and exhalation.

No Data Available

Similar Dimensions:

Equivalent:

MARTIN: *Umfang der Brust bei ruhigem Atmen*—[When measured on women.]

MONTAGU: *Mesosternale Chest Girth*—[When measured on women.]

Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

ARMY ARMORED: *Chest Circumference*—just above nipples [Measured on men.]

ARMY AVIATORS: *Chest Circumference*—at nipple level [Measured on men.]

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]

AUSTRALIA: *Chest [Circumference]*—well up under the armpits [Measured on men.]

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front [Measured on men.]

*Chest Circumference [Fourth Rib, Calm Respiration, Women]—COMAS (Continued)*

- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]* — [When measured on men.]
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]* — at the nipples . . . at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]* — at the nipples . . . at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamellaire*—[tape . . . passes around above the two nipples] [Measured on men.]

*Chest Circumference [Fourth Rib, Calm Respiration, Women]—COMAS (Continued)*

- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcé*—[forced inspiration . . . around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcé*—[forced inspiration . . . around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[When measured on men.]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom of edge of the scapulae . . . over the areola . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—[When measured on men.]
- MONTAGU: *Mesosternale Chest Girth*—[When measured on men.]
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space [Measured on men.]
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples [Measured on men.]

*Chest Circumference [Fourth Rib, Calm Respiration, Women]—COMAS (Continued)*

USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]

USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]

VIETNAM: *Chest Circumference*—nipples [Measured on men.]

WAC: *Breast Circumference*—passing over both nipples [Bra]

WAC: *Chest Circumference*—horizontally just below the breasts [Bra]

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . [Bra]

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . [Bra]

WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Girth*—maximum girth

WOMEN: *Chest Girth at Armscye*—at the level of the armscye

Indeterminable:

None

**CHEST CIRCUMFERENCE [FOURTH RIB, FULL EXHALATION, WOMEN]**

Reference: COMAS

Chest circumference . . . at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation.

No Data Available

Similar Dimensions:

Equivalent:

None

*Chest Circumference [Fourth Rib, Full Exhalation, Women]—COMAS (Continued)*

**Not Equivalent:**

- AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]
- ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing [Measured on men.]
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples. [Measured on men.]
- AUSTRALIA: [*Chest Circumference*]—horizontal . . . well up under the armpits . . . neither expanded nor contracted [Measured on men.]
- BELGIUM: *Périmètre thoracique*—[*Expiration*]—[at the . . . nipples] [Measured on men.]
- BELGIUM: *Périmètre thoracique*—[*Inspiration*]—at the . . . nipples . . . inhales as deeply as possible [Measured on men.]
- BELGIUM: *Périmètre thoracique*—[*Mean*]—at the . . . nipples . . . maximal and minimal . . . divided by two [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]* — just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]* — calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — maximum chest circumference at full inhalation

*Chest Circumference [Fourth Rib, Full Exhalation, Women]—COMAS (Continued)*

- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]* — at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée* — [forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]

*Chest Circumference [Fourth Rib, Full Exhalation, Women]—COMAS (Continued)*

- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing [Measured on men.]
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples [Measured on men.]
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing. [Bra]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing. [Bra]
- WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]
- WOMEN: *Bust Girth*—maximum girth [Subject wore a snug bandeaux.]
- WOMEN: *Chest Girth at Armseye*—at the level of the armseye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

*Chest Circumference [Fourth Rib, Full Exhalation, Women]—COMAS (Continued)*

Indeterminable:

None

**CHEST CIRCUMFERENCE [FOURTH RIB, FULL INHALATION, WOMEN]**

Reference: COMAS

Chest Circumference . . . at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation.

No Data Available

Similar Dimensions:

Equivalent:

MARTIN: *Umfang der Brust bei Inspiration*—[When measured on women.]

Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing [Measured on men.]

ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted [Measured on men.]

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples] [Measured on men.]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front [Measured on men.]

*Chest Circumference [Fourth Rib, Full Inhalation, Women]—COMAS (Continued)*

- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled (just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]* — calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* — minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]* — at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage
- FAA: *Chest Circumference* — maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]

*Chest Circumference [Fourth Rib, Full Inhalation, Women]—COMAS (Continued)*

- FRANCE '65: *Périmètre sus-mammaire en inspiration forcée*—[tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage [intermediate stage]
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage [mean . . . of inspiration and expiration]
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[When measured on men.]
- MARTIN: *Umfang der Brust bei ruhigen Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternal Chest Girth*—Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—at the level of the nipples during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—average . . . during normal breathing . . . at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]
- TUFTS: *Chest Circumference*—just above nipples . . . quiet breathing [Measured on men.]

*Chest Circumference [Fourth Rib, Full Inhalation, Women]—COMAS (Continued)*

USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]

USMC: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]

USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]

VIETNAM: *Chest Circumference*—average . . . during normal breathing . . . nipples [Measured on men.]

WAC: *Breast Circumference*—passing over both nipples. [Bra]

WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing

WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]

WOMEN: *Chest Girth at Armseye*—at the level of the armseye . . . horizontal plane . . . midpoint of respiration

Indeterminable:

None

## CHEST CIRCUMFERENCE INSPIRATION

Reference: THOUSAND AVIATORS

†[T]aken at the fourth intercostal space with flexible steel tape, applying minimal pressure† Chest circumference at maximal inspiration.

N: 675  
 $\bar{X}$ : 105.98 cm; 41.72 in  
SD: 5.69 cm; 2.24 in  
V%: [5.37]

*Chest Circumference Inspiration—THOUSAND AVIATORS (Continued)*

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

- AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing
- ARMY '66: *Chest Circumference*—[maximum . . . circumference . . . at the level of the nipples during breathing]
- ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing
- ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front
- BULGARIA: *Chest Circumference at Pause [Women]*—immediately below the mammary glands [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—immediately below the mammary glands [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—just under the mamilla in front
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—immediately below the mammary glands [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]

*Chest Circumference Inspiration—THOUSAND AVIATORS (Continued)*

- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women]—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women]—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—at the nipples . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men]—at the nipples
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration]—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation]—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation]—at the level of the xiphoid cartilage
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at xiphoid process]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[tape passed around level with xiphoid process]
- GENEVA: *Thoracic Circumference* [Intermediate]—horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [Mean]—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—nipples . . . during normal breathing
- KOREA: *Chest Circumference*—nipples . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[level with mesosternale]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[record the mean]

*Chest Circumference Inspiration—THOUSAND AVIATORS (Continued)*

- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[above the nipples, passing over the areola]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—nipples . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing
- USAF '50: *Chest Circumference*—nipples . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—nipples . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing
- WAF RECRUITS: *Bust Circumference*—at the level of the nipples [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

*Chest Circumference Inspiration—THOUSAND AVIATORS (Continued)*

WASP: *Chest Circumference*—over breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye [Measured on women.]

Indeterminable:

None

**CHEST CIRCUMFERENCE MID-BREATH**

**Reference: THOUSAND AVIATORS**

†[T]aken at the fourth intercostal space with flexible steel tape, applying minimal pressure†. Chest circumference during tidal breathing.

N: 675

$\bar{X}$ : 102.67 cm; 40.42 in

SD: 5.80 cm; 2.28 in

V%: [5.65]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Chest Circumference*—at the level of the nipples

AAF: *Chest Circumference*—just above nipples

ARMY ARMORED: *Chest Circumference*—just above nipples

ARMY AVIATORS: *Chest Circumference*—at nipple level

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and and minimal . . . divided by two]

*Chest Circumference Mid-Breadth—THOUSAND AVIATORS (Continued)*

- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamma  
 BULGARIA: *Chest Circumference at Pause [Women]*—[below the mammary glands kept in their uppermost position [Measured on women.]  
 BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamma in front  
 BULGARIA: *Chest Circumference upon Exhaling [Women]*—below the mammary glands kept in their uppermost position [Measured on women.]  
 BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamma in front  
 BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]  
 COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits  
 COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation  
 COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation  
 COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]  
 COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]  
 COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]  
 COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples  
 COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation  
 COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation  
 COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage  
 COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation  
 COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation  
 FAA: *Chest Circumference*—Maximum thoracic circumference . . . nipples  
 FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]  
 FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]  
 FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]  
 FRANCE '65: *Périmètre sus-mamelonnaire*—[above the two nipples]

*Chest Circumference Mid-Breadth—THOUSAND AVIATORS (Continued)*

- FRANCE '60: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]  
FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]  
FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]  
GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage  
GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage . . .  
JAPAN: *Chest Circumference*—nipples  
KOREA: *Chest Circumference*—nipples  
MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]  
MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]  
MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]  
MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]  
MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]  
MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[over the areola]  
MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae  
MONTAGU: *Mesosternal Chest Girth*—At the level of the mesosternale  
NATO: *Chest Circumference*—nipples  
NAVY RECRUITS: *Chest Circumference*—at the level of the nipples  
THAI: *Chest Circumference*—at level of nipples  
THOUSAND AVIATORS: *Chest Circumference Expiration*—at maximal expiration  
THOUSAND AVIATORS: *Chest Circumference Inspiration*—at maximal inspiration  
TUFTS: *Chest Circumference*—just above nipples  
USAF '50: *Chest Circumference*—nipples  
USMC: *Chest Circumference*—at the level of the nipples  
USN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing  
VIETNAM: *Chest Circumference*—at level of nipples  
WAC: *Breast Circumference*—passing over both nipples [Measured on women.]  
WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

*Chest Circumference Mid-Breadth—THOUSAND AVIATORS (Continued)*

WAF RECRUITS: *Bust Circumference*—at the level of the nipples [Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . over the breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye [Measured on women.]

Indeterminable:

None

**CHEST CIRCUMFERENCE [NIPPLES, CALM RESPIRATION, MEN]**

**Reference: COMAS**

Chest circumference at the nipples . . . static or normal, taken in a period of calm respiration, between inspiration and exhalation.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Chest Circumference*

ARMY ARMORED: *Chest Circumference*

ARMY AVIATORS: *Chest Circumference*

THAI: *Chest Circumference*

TUFTS: *Chest Circumference*

VIETNAM: *Chest Circumference*

**Not Equivalent:**

ARMY '66: *Chest Circumference*—maximum . . . circumference

*Chest Circumference [Nipples, Calm Respiration, Men]—COMAS (Continued)*

- AUSTRALIA: *Chest [Circumference]*—well up under the armpits
- BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]* — tape passes behind below the lower edges of the shoulderblades
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]* — maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Exhalation]* — just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]* — just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]* — at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*— maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*— at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation

*Chest Circumference [Nipples, Calm Respiration, Men]—COMAS (Continued)*

- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean of inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing
- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternal Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—taken at the fourth intercostal space
- USAF '50: *Chest Circumference*—maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference
- USN: *Chest Circumference*—maximum . . . during normal breathing

*Chest Circumference [Nipples, Calm Respiration, Men]—COMAS (Continued)*

WAC: *Breast Circumference*—passing over both nipples [Measured on women]

WAC: *Chest Circumference*—horizontally just below the breasts [Measured on women.]

WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts [Measured on women.]

WAF RECRUITS: *Chest Circumference (Under)*—across the front below the fullness of the breasts [Measured on women.]

WASP: *Chest Circumference*—maximum . . . breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye [Measured on women.]

**Indeterminable:**

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire*—[Precise placement of the tape is uncertain.]

**CHEST CIRCUMFERENCE [NIPPLES, FULL EXHALATION, MEN]**

**Reference: COMAS**

Chest circumference at the nipples . . . minimum chest circumference at full exhalation.

No Data Available

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . during normal breathing

*Chest Circumference [Nipples, Full Exhalation, Men]—COMAS (Continued)*

- ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing
- ARMY AVIATORS: *Chest Circumference*—during normal breathing
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted
- BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—[at pause]
- BULGARIA: *Chest Circumference at Pause [Women]*—immediately below the mammary glands [Measured on women.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—immediately below the mammary glands [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled
- BULGARIA: *Chest Circumference upon Inhaling [Women]* — maximum amount of air inhaled immediately below the mammary glands [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation

*Chest Circumference [Nipples, Full Exhalation, Men]—COMAS (Continued)*

- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—during normal breathing
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire [calm respiration]*
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration]
- FRANCE '65: *Périmètre xiphôidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphôidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—maximum . . . during normal breathing
- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[level with mesosternale]
- MARTIN: *Umfang der Brust bei Inspiration*—[level with mesosternale . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[level with mesosternale . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration

*Chest Circumference [Nipples, Full Exhalation, Men]—COMAS (Continued)*

- NATO: *Chest Circumference*—maximum during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—during quiet breathing
- USAF '50: *Chest Circumference*—maximum during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . during normal breathing
- USN: *Chest Circumference*—maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing [Measured on women.]
- WASP: *Chest Circumference*—maximum . . . over breasts [Measured on women.]
- WOMEN: *Bust Girth*—maximum girth [Measured on women.]
- WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . midpoint of respiration [Measured on women.]

Indeterminable:

- ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]
- Regarding the following titles: the reference dimension description does not describe the passage of the measuring tape across the back
- BELGIUM: *Périmètre thoracique* [Expiration]
- BULGARIA: *Chest Circumference upon Exhaling* [Men]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*

## CHEST CIRCUMFERENCE [NIPPLES, FULL INHALATION, MEN]

Reference: COMAS

Chest circumference at the nipples . . . maximum chest circumference at full inhalation.

No Data Available

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing

ARMY '66: *Chest Circumference*—during normal breathing

ARMY ARMORED: *Chest Circumference*—neither expanded nor collapsed . . . during quiet breathing

ARMY AVIATORS: *Chest Circumference*—during normal breathing

AUSTRALIA: *Chest [Circumference]*—well up under the armpits . . . neither expanded nor contracted

BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—passes behind below the lower edges of the shoulderblades

BULGARIA: *Chest Circumference at Pause [Women]*—immediately below the mammary glands [Measured on women.]

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled

BULGARIA: *Chest Circumference upon Exhaling [Women]*—immediately below the mammary glands [Measured on women.]

BULGARIA: *Chest Circumference upon Inhaling [Women]*—immediately below the mammary glands [Measured on women.]

COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation

*Chest Circumference [Nipples, Full Inhalation, Men]—COMAS (Continued)*

- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process] . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '55: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoïdien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoïdien en inspiration forcée*—[tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—base of the ensiform cartilage . . . †mean . . . of inspiration and expiration

*Chest Circumference [Nipples, Full Inhalation, Men]—COMAS (Continued)*

- JAPAN: *Chest Circumference*—maximum . . . during normal breathing
- KOREA: *Chest Circumference*—maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[level with mesosternale . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[level with mesosternale]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[level with mesosternale . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—during quiet breathing
- USAF '50: *Chest Circumference*—maximum . . . during normal breathing
- USMC: *Chest Circumference*—during normal breathing
- USN: *Chest Circumference*—during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing
- WAC: *Breast Circumference*—passing over both nipples [Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing [Measured on women.]

*Chest Circumference [Nipples, Full Inhalation, Men]—COMAS (Continued)*

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below fullness of the breasts . . . during normal breathing [Measured on women.]

WASP: *Chest Circumference*—maximum . . . over breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . midpoint of respiration [Measured on women.]

Indeterminable:

ARMY QM: *Chest Circumference*—[Status of respiration is not specified.]

FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[Position of tape is not certain.]

Regarding the following titles, the reference dimension description does not describe the passage of the tape across the subject's back.

BELGIUM: *Périmètre thoracique [Inspiration]*

BULGARIA: *Chest Circumference upon Inhaling [Men]*

MARTIN-SALLER: *Umfang der Brust bei Inspiration*

**CHEST CIRCUMFERENCE (OVER)**

**Reference: WAF RECRUITS**

Subject stands. Her arms are raised and the tape is placed across the back at the level of the nipples, but is brought across the front above the fullness of the breasts. Record the measurement at the maximum dimension during normal breathing. [Bra]

N: 852

$\bar{X}$ : 82.16 cm; 32.35 in

SD: 4.23 cm; 1.66 in

V%: 5.14

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal . . . just above nipples [Measured on men.]

ARMY '66: *Chest Circumference*—[Measured on men.]

*Chest Circumference (Over)—WAF RECRUITS (Continued)*

- ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples  
neither expanded nor collapsed . . . during quiet breathing [Measured on  
men.]
- ARMY AVIATORS: *Chest Circumference*—[Measured on men.]
- ARMY QM: *Chest Circumference*—[Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the arm-  
pits . . . neither expanded nor contracted [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales  
. . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales  
as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal  
and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in  
front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immedi-  
ately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of  
air exhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes im-  
mediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of  
air inhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount  
of air inhaled †the tape passes immediately below the mammary glands kept  
in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the arm-  
pits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the arm-  
pits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits  
. . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the  
height of the fourth chondrosternal articulation . . . calm respiration between  
inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the  
height of the fourth chondrosternal articulation . . . minimum chest circumfer-  
ence at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the  
height of the fourth chondrosternal articulation . . . maximum chest circumfer-  
ence at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples  
. . . calm respiration, between inspiration and expiration [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . .  
minimum chest circumference at full exhalation [Measured on men.]

*Chest Circumference (Over)—W'AF RECRUITS (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of scapulae . . . over the areola]

*Chest Circumference (Over)—WAF RECRUITS (Continued)*

MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration  
MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration  
NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]  
NAVY RECRUITS: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]  
THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples [Measured on men.]  
THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]  
THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]  
THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space [Measured on men.]  
TUFTS: *Chest Circumference*—Horizontal . . . just above nipples [Measured on men.]  
USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]  
USMC: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]  
USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]  
VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples [Measured on men.]  
WAC: *Breast Circumference*—passing over both nipples  
WAC: *Chest Circumference*—horizontally just below the breasts  
WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing  
WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front under the fullness of the breasts  
WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]  
WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]  
WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

Indeterminable:

None

See Also:

*Anterior Bust Arc*

## CHEST CIRCUMFERENCE (UNDER)

Reference: WAF RECRUITS

Subject stands. Her arms are raised and the tape is placed across the back at the level of the nipples, but is brought across the front below the fullness of the breasts. Record the measurement at the maximum dimension during normal breathing. [Bra]

N: 850  
 $\bar{X}$ : 75.11 cm; 29.57 in  
SD: 4.69 cm; 1.85 in  
V%: 6.24

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY AVIATORS: *Chest Circumference*—at nipple level [Measured on men.]

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted [Measured on men.]

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales . . . as deeply as possible] [Measured on men.]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front [Measured on men.]

BULGARIA: *Chest Circumference at Pause [Women]* — The tape passes behind below the lower edges of the shoulderblades

*Chest Circumference (Under)—WAF RECRUITS (Continued)*

- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamma in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—with the maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Inhaling [Men]* — maximum amount of air inhaled †just under the mamma in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]* — just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]

*Chest Circumference (Under)—WAF RECRUITS (Continued)*

- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—[horizontal plane . . . base of the ensiform cartilage †intermediate stage]
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola . . . pause in breathing]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—at the level of the nipples. [Measured on men.]
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]

*Chest Circumference (Under)—WAF RECRUITS (Continued)*

THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]

THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]

TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing [Measured on men.]

USAF '50: *Chest Circumference*—horizontal plane . . . nipples [Measured on men.]

USMC: *Chest Circumference*—at the level of the nipples [Measured on men.]

USN: *Chest Circumference*—horizontal plane . . . nipples [Measured on men.]

VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples [Measured on men.]

WAC: *Breast Circumference*—passing over both nipples

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples

WAF RECRUITS: *Chest Circumference (Over)*—across the front above the fullness of the breasts

WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

**Indeterminable:**

WAC: *Chest Circumference*—[The status of respiration is not clearly specified.]

**See Also:**

*Anterior Bust Arc*

**CHEST CIRCUMFERENCE UPON EXHALING [MEN]**

**Reference: BULGARIA**

†[M]easured with centimeter tape† with the maximum amount of air exhaled. †The tape passes behind below the lower edges of the shoulderblades and . . . just under the mammilla in front†

*Chest Circumference Upon Exhaling [Men]—BULGARIA (Continued)*

N: 1661  
 $\bar{X}$ : [86.76 cm; 34.16 in]  
Est SD: [5.26 cm; 2.07 in]  
Est V%: [6.06]

**Similar Dimensions:**

**Equivalent:**

MARTIN-SALLER: *Umfang der Brust bei Expiration* [When measured on men.]

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal . . . neither expanded nor collapsed . . . during quiet breathing

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . during normal breathing

ARMY ARMORED: *Chest Circumference*—Horizontal . . . neither expanded nor collapsed . . . during quiet breathing

ARMY AVIATORS: *Chest Circumference*—during normal breathing

ARMY QM: *Chest Circumference*—tape is . . . horizontally

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted

BELGIUM: *Périmètre thoracique [Expiration]*—[tape . . . horizontally]

BELGIUM: *Périmètre thoracique [Inspiration]*—[inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—[at pause]

BULGARIA: *Chest Circumference at Pause [Women]*—immediately below the mammary glands [Measured on women.]

BULGARIA: *Chest Circumference upon Exhaling [Women]*—immediately below the mammary glands [Measured on women.]

BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled

BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position [Measured on women.]

COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation

COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits

*Chest Circumference Upon Exhaling [Men]—BULGARIA (Continued)*

- COMAS: *Chest Circumference [Axillary, Full Inhalation]* — just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* --at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process . . . after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*--[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing

*Chest Circumference Upon Exhaling [Men]—BULGARIA (Continued)*

- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[When measured on women.]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing [Measured on women.]

*Chest Circumference Upon Exhaling [Men]—BULGARIA (Continued)*

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing [Measured on women.]

WASP: *Chest Circumference*—maximum . . . over the breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration [Measured on women.]

**Indeterminable:**

The following does not describe passage of measuring tape across the back.

COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*

**CHEST CIRCUMFERENCE UPON EXHALING [WOMEN]**

**Reference: BULGARIA**

†[M]easured with centimeter tape† with the maximum amount of air exhaled. †The tape passes behind below the lower edges of the shoulderblades and . . . the tape passes immediately below the mammary glands kept in their uppermost position†.

N: 1574

$\bar{X}$ : [77.16 cm; 30.38 in]

Est SD: [5.93 cm; 2.33 in]

Est V%: [7.69]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing [Measured on men.]

*Chest Circumference Upon Exhaling [Women]—BULGARIA (Continued)*

- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—[at pause]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage

*Chest Circumference Upon Exhaling [Women]—BULGARIA (Continued)*

- COMAS: *Chest Circumference* [*Xiphoid, Full Inhalation*] — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [*Expiration*] — [at . . . xiphoid process] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [*Inspiration*]—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [*Mean*]—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference* [*Intermediate*]—horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference* [*Mean*]—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[over the areola]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[over the areola . . . pause in breathing . . . posture . . . relaxed]

*Chest Circumference Upon Exhaling [Women]—BULGARIA (Continued)*

- MONTAGU: *Axillary Chest Girth* — well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternal Chest Girth* — At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing [Measured on men.]
- US 1700: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples [Measured on men.]
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—Normal breathing. [Bra]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples during normal breathing. [Bra]
- WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]
- WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]
- WOMEN: *Chest Girth at Armscye* — at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

Indeterminable:

None

## CHEST CIRCUMFERENCE UPON INHALING [MEN]

Reference: BULGARIA

†[M]easured with centimeter tape† with the maximum amount of air inhaled. †The tape passes behind below the lower edges of the shoulderblades and . . . just under the mam-milla in front.†

N: 1660  
 $\bar{X}$ : [96.25 cm; 37.89 in]  
Est SD: [5.34 cm; 2.10 in]  
Est V%: [5.55]

### Similar Dimensions:

#### Equivalent:

MARTIN-SALLER: *Umfang der Brust bei Inspiration*. [When measured on men]

#### Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . during quiet breathing

ARMY '66: *Chest Circumference*—maximum . . . during normal breathing

ARMY ARMORED: *Chest Circumference*—Horizontal . . . neither expanded nor collapsed . . . during quiet breathing

ARMY AVIATORS: *Chest Circumference*—during normal breathing

ARMY QM: *Chest Circumference*—tape is . . . horizontally

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted

BELGIUM: *Périmètre thoracique [Expiration]*—[exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]* — [Measuring tape passes horizontally around the chest at the level of the nipples]

BELGIUM: *Périmètre thoracique [Mean]*—[maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—[at pause]

BULGARIA: *Chest Circumference at Pause [Women]* — below the mammary glands kept in their uppermost position [Measured on women.]

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled

*Chest Circumference Upon Inhaling [Men]—BULGARIA (Continued)*

- BULGARIA: *Chest Circumference upon Exhaling [Women]* — below the mammary glands kept in their uppermost position [Measured on women.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]* — below the mammary glands kept in their uppermost position [Measured on women.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]* — between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]* — at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]* — [When measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]* — at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]* — at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation [Measured on women.]
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]* — at the height of the fourth chondrosternal articulation [Measured on women.]
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]* — calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]* — minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]* — at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]* — at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]* — at the level of the xiphoid cartilage
- FAA: *Chest Circumference* — maximum . . . during normal breathing
- FRANCE '55: *Périmètre thoracique [Expiration]* — [at . . . xiphoid process . . . after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]* — [at . . . xiphoid process]
- FRANCE '55: *Périmètre thoracique [Mean]* — [at . . . xiphoid process . . . minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire* — [calm respiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée* — [measuring tape, held horizontally]
- FRANCE '65: *Périmètre xiphoidien au repos* — [calm respiration . . . tape . . . passed around level with the xiphoid process]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée* — [tape . . . passed around level with the xiphoid process]
- GENEVA: *Thoracic Circumference [Intermediate]* — horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]* — horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration

*Chest Circumference Upon Inhaling [Men]---BULGARIA (Continued)*

- JAPAN: *Chest Circumference*—horizontal plane . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration* — [When measured on women.]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth* — well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration,
- MONTAGU: *Mesosternal Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average . . . during normal breathing
- WAC: *Breast Circumference*—[Measured on women.]
- WAC: *Chest Circumference*—horizontally just below the breasts. Normal breathing [Measured on women.]
- WAF RECRUITS: *Bust Circumference*—horizontal position . . . at the maximum dimension during normal breathing [Measured on women.]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above fullness of the breasts . . . during normal breathing [Measured on women.]

*Chest Circumference Upon Inhaling [Men]—BULGARIA (Continued)*

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below fullness of the breasts . . . during normal breathing [Measured on women.]

WASP: *Chest Circumference*—maximum . . . over breasts [Measured on women.]

WOMEN: *Bust Girth*—maximum girth [Measured on women.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration [Measured on women.]

Indeterminable:

In the following, the passage of the tape around the thorax is not clearly described.

COMAS: *Chest Circumference [Axillary, Full Inhalation]* — [When measured on the same sex as the reference dimension.]

COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—[When reference dimension is measured on men.]

**CHEST CIRCUMFERENCE UPON INHALING [WOMEN]**

Reference: BULGARIA

†[M]easured with centimeter tape† with the maximum amount of air inhaled. †The tape passes behind below the lower edges of the shoulderblades and . . . passes immediately below the mammary glands kept in their uppermost position†

N: 1577

$\bar{X}$ : [84.37 cm; 33.22 in]

Est SD: [6.13 cm; 2.41 in]

Est V<sub>G</sub>: [7.27]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]

*Chest Circumference Upon Inhaling [Women]—BULGARIA (Continued)*

- ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing [Measured on men.]
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted [Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—[at pause]
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—maximum amount of air exhaled
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—just under the mamilla in front [Measured on men.]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation [Measured on men.]

*Chest Circumference Upon Inhaling [Women]—BULGARIA (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation [Measured on men.]
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]* — at the nipples [Measured on men.]
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—at the level of the xiphoid cartilage . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at the level of the xiphoid cartilage
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Expiration]*—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[at . . . xiphoid process] [Measured on men.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[at . . . xiphoid process . . . minimal and maximal . . . divided by two] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire* — [calm respiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration . . . tape . . . passed around level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée* — [tape . . . passed level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference [Intermediate]*—horizontal plane . . . base of the ensiform cartilage †intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—horizontal plane . . . base of the ensiform cartilage †mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [over the areola . . . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[over the areola]

*Chest Circumference Upon Inhaling [Women]—BULGARIA (Continued)*

- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen* — [over the areola . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing [Measured on men.]
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing [Measured on men.]
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing [Measured on men.]
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing [Measured on men.]
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples [Measured on men.]
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—Normal breathing. [Bra]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . during normal breathing. [Bra]
- WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]
- WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]
- WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

Indeterminable:

None

## CHEST CIRCUMFERENCE [XIPHOID, CALM RESPIRATION]

### Reference: COMAS

Chest circumference at the level of the xiphoid cartilage. . . In the back, the steel tape, held horizontally should pass under the inferior angle of the scapula . . . static or normal, taken in a period of calm respiration, between inhalation and exhalation.

No Data Available

### Similar Dimensions:

#### Equivalent:

FRANCE '65: *Périmètre xiphoïdien au repos* — [When reference dimension is measured on men.]

#### Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Circumference*—just above nipples

ARMY AVIATORS: *Chest Circumference*—at nipple level

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . ex-hales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . in-hales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]* — just under the mamilla in front

BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mamilla in front

BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mamilla in front

*Chest Circumference [Xiphoid, Calm Respiration]—COMAS (Continued)*

- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled [the tape passes immediately below the mammary glands kept in their uppermost position]
- COMAS: *Chest Circumference [Axillary, Calm Respiration]* — just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at full exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]*—[after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire* — [tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration]
- FRANCE '65: *Périmètre xiphoidien au repos* — [When reference dimension is measured on women.]
- GENEVA: *Thoracic Circumference [Intermediate]* — intermediate stage as regards extremes of inspiration and of expiration
- GENEVA: *Thoracic Circumference [Mean]*—mean . . . of inspiration and expiration

*Chest Circumference [Xiphoid, Calm Respiration]—COMAS (Continued)*

- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[over the areola]
- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—at level of nipples
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—horizontally just below the breasts . . . [Bra]

*Chest Circumference [Xiphoid, Calm Respiration]—COMAS (Continued)*

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . [Bra]

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below fullness of the breasts . . . [Bra]

WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . [Subject wore a snug bandeaux.]

Indeterminable:

None

**CHEST CIRCUMFERENCE [XIPHOID, FULL EXHALATION]**

Reference: COMAS

Chest circumference at the level of the xiphoid cartilage . . . In the back, the steel tape, held horizontally should pass under the inferior angle of the scapula . . . minimum chest circumference at full expiration.

No Data Available

Similar Dimensions:

Equivalent:

FRANCE '55: *Périmètre thoracique [Expiration]* — [When reference dimension is measured on men.]

Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

*Chest Circumference [Xiphoid, Full Exhalation]—COMAS (Continued)*

- ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples
- AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference — upon Exhaling [Men]* — just under the mammilla in front
- BULGARIA: *Chest Circumference upon Exhaling [Women]* — the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]* — just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits . . . at full inhalation
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples

*Chest Circumference [Xiphoid, Full Exhalation]—COMAS (Continued)*

- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Inhalation]*—at full inhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]* — [When reference dimension is measured on women.]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[after deep inhalation]
- FRANCE '55: *Périmètre thoracique [Mean]*—[minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passer around above two nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée* — [forced inspiration . . . tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphôidien au repos*—[calm respiration]
- FRANCE '65: *Périmètre xiphôidien en inspiration forcée*—[forced inspiration]
- GENEVA: *Thoracic Circumference [Intermediate]*—intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal]
- MARTIN: *Umfang der Brust bei Inspiration*—[high in axilla . . . tape is horizontal . . . inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[over the areola]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen* — [over the areola . . . pause in breathing . . . posture . . . relaxed]

*Chest Circumference [Xiphoid, Full Exhalation]—COMAS (Continued)*

- MONTAGU: *Axillary Chest Girth*—well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternal Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—Normal breathing. [Bra]
- WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing. [Bra]
- WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across the front below the fullness of the breasts . . . during normal breathing. [Bra]
- WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]
- WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]
- WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

Indeterminable:

None

## CHEST CIRCUMFERENCE [XIPHOID, FULL INHALATION]

### Reference: COMAS

Chest circumference at the level of the xiphoid cartilage . . . . In the back, the steel tape, held horizontally should pass under the inferior angle of the scapula . . . maximum chest circumference at full inhalation.

No Data Available

### Similar Dimensions:

#### Equivalent:

FRANCE '55: *Périmètre thoracique [Inspiration]* — [When reference dimension is measured on men.]

FRANCE '65: *Périmètre xiphoïdien en inspiration forcée*—[When reference dimension is measured on men.]

#### Not Equivalent:

AAF: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

ARMY '66: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Circumference*—Horizontal . . . just above nipples . . . neither expanded nor collapsed . . . during quiet breathing

ARMY AVIATORS: *Chest Circumference*—at nipple level . . . during normal breathing

ARMY QM: *Chest Circumference*—tape on the areolae above the nipples

AUSTRALIA: *Chest [Circumference]*—horizontal . . . well up under the armpits . . . neither expanded nor contracted

BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible]

BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible]

BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples . . . maximal and minimal . . . divided by two]

BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front

BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mammilla in front

BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position

BULGARIA: *Chest Circumference upon Inhaling [Men]*—just under the mammilla in front

*Chest Circumference [Xiphoid, Full Inhalation]—COMAS (Continued)*

- BULGARIA: *Chest Circumference upon Inhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- COMAS: *Chest Circumference [Axillary, Calm Respiration]*—just below the armpits . . . between inhalation and exhalation
- COMAS: *Chest Circumference [Axillary, Full Exhalation]*—just below the armpits . . . at full exhalation
- COMAS: *Chest Circumference [Axillary, Full Inhalation]*—just below the armpits
- COMAS: *Chest Circumference [Fourth Rib, Calm Respiration, Women]*—at the height of the fourth chondrosternal articulation . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Exhalation, Women]*—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Fourth Rib, Full Inhalation, Women]*—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference [Nipples, Calm Respiration, Men]*—at the nipples . . . calm respiration, between inspiration and exhalation
- COMAS: *Chest Circumference [Nipples, Full Exhalation, Men]*—at the nipples . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference [Nipples, Full Inhalation, Men]*—at the nipples
- COMAS: *Chest Circumference [Xiphoid, Calm Respiration]*—between inhalation and exhalation
- COMAS: *Chest Circumference [Xiphoid, Full Exhalation]*—at full exhalation
- FAA: *Chest Circumference*—maximum thoracic circumference . . . during normal breathing . . . nipples
- FRANCE '55: *Périmètre thoracique [Expiration]*—[after . . . deep exhalation]
- FRANCE '55: *Périmètre thoracique [Inspiration]*—[When reference dimension is measured on women.]
- FRANCE '55: *Périmètre thoracique [Mean]*—[minimal and maximal . . . divided by two]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[calm respiration . . . tape . . . passes around above the nipples]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[tape . . . passes around above the two nipples]
- FRANCE '65: *Périmètre xiphoidien au repos*—[calm respiration]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[When reference dimension is measured on women.]
- GENEVA: *Thoracic Circumference [Intermediate]*—intermediate stage
- GENEVA: *Thoracic Circumference [Mean]*—mean . . . of inspiration and expiration
- JAPAN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing

*Chest Circumference [Xiphoid, Full Inhalation]—COMAS (Continued)*

- KOREA: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- MARTIN: *Umfang der Brust bei Expiration*—[high in axilla . . . tape is horizontal . . . maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration* — [high in axilla . . . tape is horizontal]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[high in axilla . . . tape is horizontal . . . record the mean]
- MARTIN-SALLER: *Umfang der Brust bei Expiration* — [over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[over the areola]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[over the areola . . . pause in breathing . . . posture . . . relaxed]
- MONTAGU: *Axillary Chest Girth* — well up in the axillary fossae. Mean reading . . . during normal inspiration and expiration
- MONTAGU: *Mesosternale Chest Girth*—At the level of the mesosternale. Mean . . . during normal inspiration and expiration
- NATO: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- NAVY RECRUITS: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- THAI: *Chest Circumference*—average circumference . . . during normal breathing . . . at level of nipples
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space . . . during tidal breathing
- TUFTS: *Chest Circumference*—Horizontal . . . just above nipples . . . during quiet breathing
- USAF '50: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- USMC: *Chest Circumference*—maximum . . . circumference . . . at the level of the nipples during normal breathing
- USN: *Chest Circumference*—horizontal plane . . . nipples . . . maximum . . . during normal breathing
- VIETNAM: *Chest Circumference*—average circumference . . . during normal breathing . . . nipples
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—Normal breathing. [Bra]

*Chest Circumference [Xiphoid, Full Inhalation]—COMAS (Continued)*

WAF RECRUITS: *Bust Circumference*—horizontal position at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across the front above the fullness of the breasts . . . during normal breathing. [Bra]

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . during normal breathing. [Bra]

WASP: *Chest Circumference*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Girth*—maximum girth . . . [Subject wore a snug bandeaux.]

WOMEN: *Chest Girth at Armscye*—at the level of the armscye . . . horizontal plane . . . midpoint of respiration. [Subject wore a snug bandeaux.]

Indeterminable:

None

## CHEST DEPTH

Reference: AAF

Horizontal antero-posterior dimension at nipple level. Contact to sternum (breastbone); fixed arm of anthropometer in spinal groove.

<i>Cadets</i>	<i>Gunners</i>
N: 2959	583
Median: 20.76 cm; 8.2 in	2069 cm; 8.2 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

ARMY ARMORED: *Chest Depth*

TUFTS: *Chest Depth*

Not Equivalent:

ARMY '66: *Chest Depth*—An anthropometer [with straight arms] is used

ARMY ARMORED: *Chest Thickness*—Greatest thickness from front to back

*Chest Depth—AAF (Continued)*

- ARMY AVIATORS: *Chest Depth* - [An anthropometer with straight arms is used.]
- ARMY QM: *Chest Depth* - body of anthropometer . . . [projects] †downward and backward † Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale
- FAA: *Chest Depth* - [An anthropometer with straight arms is used.]
- FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the . . . fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation
- INDIA: *Chest [Depth, Sitting]* - back against one wing of the board† block placed at the nipple level
- KOREA: *Chest Depth* - [An anthropometer with straight arms is used.]
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae
- NATO: *Chest Depth* - [An anthropometer with straight arms is used.]
- NAVY RECRUITS: *Chest Depth* - An anthropometer [with straight arms] is used
- THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - [An anthropometer with straight arms is used.]
- USAF '50: *Chest Depth* - [An anthropometer with straight arms is used.]
- USMC: *Chest Depth* - An anthropometer [with straight arms] is used
- USN: *Chest Depth* - [An anthropometer with straight arms is used.]
- WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

See Also:

*Trunk Depth*

## CHEST DEPTH

### Reference: ARMY '66

Subject stands erect, with his arms initially raised and then lowered after the anthropometer is in place under the right arm. The depth of the chest is measured at the level of the nipples during normal breathing. An anthropometer is used, and is held horizontally.

N: 6682  
 $\bar{X}$ : 23.16 cm; 9.12 in  
SD: 2.00 cm; 0.79 in  
V%: 8.61

### Similar Dimensions:

#### Equivalent:

FAA: *Chest Depth*  
KOREA: *Chest Depth*  
NATO: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*  
USAF '50: *Chest Depth*  
USMC: *Chest Depth*  
USN: *Chest Depth*

#### Not Equivalent:

AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back  
ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer [projects] †downward and backward † Pressure applied  
BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter  
FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the . . . fourth costal cartilage]  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage † †intermediate stage † extremes of inspiration and of expiration  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at level of base of ensiform [xiphoid] cartilage † †mean of the measurements taken at the extremes of inspiration and of expiration

### *Chest Depth—ARMY '56 (Continued)*

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Intermediate Stage] - at the level of the upper border of the fourth chondro-sternal articulation. † †measurement . . . made in the intermediate stage † extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Mean] - at the level of the upper border of the fourth chondro-sternal articulation. † †mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest* [Men] - forearms flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest* [Women] - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration

INDIA: *Chest* [Depth, Sitting] - seat . . . back against one wing of the board † block placed at the nipple level

MONTAGU: *Chest Depth* or *Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration

TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove

WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

See Also:

Trunk Depth

## CHEST DEPTH

Reference: ARMY ARMORED

Horizontal antero-posterior dimension at nipple level. Contact to sternum (breast-bone); fixed arm of anthropometer in spinal groove.

Reference cites AAF data for this dimension.

Similar Dimensions:

Equivalent:

**Chest Depth—ARMY ARMORED (Continued)**

AAF: *Chest Depth*

TUFTS: *Chest Depth*

**Not Equivalent:**

ARMY '66: *Chest Depth* - An anthropometer [with straight arms] is used

ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back

ARMY AVIATORS: *Chest Depth* - [An anthropometer with straight arms is used.]

ARMY QM: *Chest Depth* - body of anthropometer . . . [projects] †downward and backward† Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale

FAA: *Chest Depth* - [An anthropometer with straight arms is used.]

FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the . . . fourth costal cartilage]

GENEVA: *Antero-Posterior Diameter of the Thorax* (no. 1) [Xiphoid - Intermediate Stage] - at the level of the base of the ensiform [xiphoid] cartilage

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform [xiphoid] cartilage

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Intermediate Stage] - at the level of the upper border of the fourth chondro-sternal articulation

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Mean] - at the level of the upper border of the fourth chondro-sternal articulation

HRDLICKA: *Antero-Posterior Diameter of the Chest* [Men] - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees

HRDLICKA: *Antero-Posterior Diameter of the Chest* [Women] - at the line of the fourth costo-sternal articulation

INDIA: *Chest* [Depth, Sitting] - back against one wing of the board† block placed at the nipple level

KOREA: *Chest Depth* - [An anthropometer with straight arms is used.]

MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae

NATO: *Chest Depth* - [An anthropometer with straight arms is used.]

NAVY RECRUITS: *Chest depth* - An anthropometer [with straight arms] is used

THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - [An anthropometer with straight arms is used.]

USAF '50: *Chest Depth* - [An anthropometer with straight arms is used.]

USMC: *Chest Depth* - An anthropometer [with straight arms] is used

USN: *Chest Depth* - [An anthropometer with straight arms is used.]

WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla

**Chest Depth—ARMY ARMORED (Continued)**

Indeterminable:

None

See Also:

*Trunk Depth*

**CHEST DEPTH**

**Reference: ARMY AVIATORS**

The horizontal distance between the front and the back of the chest at nipple level, taken during normal breathing.

N: 500  
X: 22.89 cm; 9.01 in  
SD: 2.01 cm; 0.79 in  
V%: [8.78]

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back  
ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . above the nipples . . . body of anthropometer [projects] downward and backward † Pressure applied  
BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter  
FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage]  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage † intermediate stage † extremes of inspiration and of expiration  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]*

*Chest Depth—ARMY AVIATORS (Continued)*

- at the level of the base of the ensiform [xiphoid] cartilage† †mean of the measurements taken at the extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation†. †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation†. †mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board† block placed at the nipple level
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration
- TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

*Indeterminable:*

Reference dimension description does not specify position of subject's arm.

ARMY '66: *Chest Depth*

FAA: *Chest Depth*

KOREA: *Chest Depth*

NATO: *Chest Depth*

NAVY RECRUITS: *Chest Depth*

THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*

USAF '50: *Chest Depth*

USMC: *Chest Depth*

USN: *Chest Depth*

**See Also:**

*Trunk Depth*

## CHEST DEPTH

Reference: ARMY QM

†Subject stands erect, with heels together and eyes straight ahead† Anthropometer extends under the right arm. The sliding arm of the anthropometer is held horizontally just above the nipples. The body of the anthropometer . . . [projects] †downward and backward so as to avoid the back muscles†. Pressure applied.

N: 24558  
X: 21.16 cm; 8.33 in  
SD: 1.90 cm; 0.75 in  
V%: [8.98]

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Chest Depth* - Horizontal antero-posterior dimension  
ARMY '66: *Chest Depth* - anthropometer . . . held horizontally  
ARMY ARMORED: *Chest Depth* - Horizontal antero-posterior dimension  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back [Horizontal]  
ARMY AVIATORS: *Chest Depth* - horizontal distance  
BULGARIA: *Antero-Posterior Diameter of the Chest* - rectilinear distance from mesosternale to the horizontally corresponding spine  
FAA: *Chest Depth* - [Horizontal]  
FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the level of the fourth costal cartilage]  
GENEVA: *Antero-Posterior Diameter of the Thorax* (no. 1) [Xiphoid - Intermediate Stage] - measurement . . . in the horizontal plane at the level of the base of the ensiform [xiphoid] cartilage  
GENEVA: *Antero-Posterior Diameter of the Thorax* (no. 1) [Xiphoid - Mean] - measurement . . . in the horizontal plane at the level of the base of the ensiform [xiphoid] cartilage  
GENEVA: *Antero-Posterior Diameter of the Thorax* (no. 2) [Mesosternale - Intermediate Stage] - measurement is . . . made in the horizontal plane at the level of the upper border of the fourth chondro-sternal articulation  
GENEVA: *Antero-Posterior Diameter of the Thorax* (no. 2) [Mesosternale - Mean] - measurement is . . . made in the horizontal plane at the level of the upper border of the fourth chondro-sternal articulation  
HRDLICKA: *Antero-Posterior Diameter of the Chest* [Men] - [Horizontal] arms are lifted . . . to about 65 degrees outward from the body

***Chest Depth—ARMY QM (Continued)***

HRDLICKA: *Antero-Posterior Diameter of the Chest [Women] - [Horizontal]*  
arms are lifted . . . to about 65 degrees outward from the body  
INDIA: *Chest [Depth, Sitting] - [Horizontal]*  
KOREA: *Chest Depth - Holding the anthropometer horizontally*  
MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax - [Horizontal]* At the level of the inferior angles of the scapulae  
NATO: *Chest Depth - Holding the anthropometer horizontally*  
NAVY RECRUITS: *Chest Depth - anthropometer . . . held horizontally*  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter - [Horizontal]*  
TUFTS: *Chest Depth - Horizontal anteroposterior dimension*  
USAF '50: *Chest Depth - Holding the anthropometer horizontally*  
USMC: *Chest Depth - anthropometer . . . held horizontally*  
USN: *Chest Depth - Holding the anthropometer horizontally*  
WAC: *Chest Depth - left arm extended forward . . . Anthropometer held horizontally and as high in the axilla as possible*

Indeterminable:

None

**See Also:**

*Trunk Depth*

**CHEST DEPTH**

**Reference: FAA**

The anterior-posterior diameter of the chest, taken at the nipple line during normal breathing. [Arms are pendant]

N: 681  
 $\bar{X}$ : 24.16 cm; 9.51 in  
SD: 1.90 cm; 0.75 in  
V%: 7.88

**Similar Dimensions:**

Equivalent:

ARMY '66: *Chest Depth*  
KOREA: *Chest Depth*  
NATO: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*

*Chest Depth—FAA (Continued)*

THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*

USAF '50: *Chest Depth*

USMC: *Chest Depth*

USN: *Chest Depth*

Not Equivalent:

AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back

ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer . . . [project] †downward and backward † Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter

FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the . . . fourth costal cartilage]

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage † intermediate stage † extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage † mean of the measurements taken at the extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation † measurement . . . made in the intermediate stage † extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation † mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation † forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration

INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board † block placed at the nipple level

MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration

TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in

***Chest Depth—FAA (Continued)***

spinal groove.

WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

See Also:

*Trunk Depth*

**CHEST DEPTH**

Reference: KOREA

Subject stands erect with his arms initially raised and then lowered after the instrument is in place. Holding the anthropometer horizontally on the subject's right side, at the level of the nipples, measure the depth of the chest during normal breathing.

N: 264  
 $\bar{X}$ : 21.66 cm; 9.62 in  
SD: 1.78 cm; 0.70 in  
V%: 8.23

Similar Dimensions:

Equivalent:

ARMY '66: *Chest Depth*  
FAA: *Chest Depth*  
NATO: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*  
USAF '50: *Chest Depth*  
USMC: *Chest Depth*  
USN: *Chest Depth*

Not Equivalent:

AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of an-

### *Chest Depth—KOREA (Continued)*

- thropometer in spinal groove.
- ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back
- ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer [projects] †downward and backward † Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter
- FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage† †intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage† †mean of measurements taken at the extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation.† †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation†. †mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board† block placed at the nipple level
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration
- TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

See Also:

*Trunk Depth*

## CHEST DEPTH or ANTERO-POSTERIOR DIAMETER OF THE THORAX

### Reference: MONTAGU

(Large Spreading Caliper). At the level of the inferior angles of the scapulae. The mean of the measurements made at expiration and inspiration while the subject is breathing normally.

No Data Available

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

AAF: *Chest Depth* - at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY '66: *Chest Depth* - at the level of the nipples

ARMY ARMORED: *Chest Depth* - at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back

ARMY AVIATORS: *Chest Depth* - at nipple level

ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer [projects] †downward and backward † Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale. Measured with pelvimeter.

FAA: *Chest Depth* - at the nipple line

FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage.]

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [Xiphoid - Intermediate Stage] - at the level of the base of the ensiform [xiphoid] cartilage

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform [xiphoid] cartilage

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Intermediate Stage] - at the level of the upper border of the fourth chondro-sternal articulation

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Mean] - at the level of the upper border of the fourth chondro-sternal articulation

HRDLICKA: *Antero-Posterior Diameter of the Chest* [Men] - at the nipples †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees

HRDLICKA: *Antero-Posterior Diameter of the Chest* [Women] - at the line

***Chest Depth or Antero-Posterior Diameter Of The Thorax—MONTAGU (Continued)***

of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
INDIA: *Chest [Depth, Sitting]* - seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level  
KOREA: *Chest Depth* - at the level of the nipples  
NATO: *Chest Depth* - at the level of the nipples  
NAVY RECRUITS: *Chest Depth* - at the level of the nipples  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - at the level of the nipple  
TUFTS: *Chest Depth* - at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove  
USAF '50: *Chest Depth* - at the level of the nipples  
USMC: *Chest Depth* - at the level of the nipples  
USN: *Chest Depth* - at the level of the nipples  
WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

**See Also:**

Trunk Depth

**CHEST DEPTH**

**Reference: NATO**

Subject stands erect with his arms initially raised and then lowered after the instrument is in place. Holding the anthropometer horizontally on the subject's right side at the level of the nipples, measure the depth of the chest during normal breathing.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 23.02 cm; 9.06 in	23.49 cm; 9.25 in	23.84 cm; 9.39 in
SD: 1.52 cm; 0 in	1.46 cm; 0.57 in	1.74 cm; 0.69 in
V%: 6.60	6.19	7.28

**Similar Dimensions:**

Equivalent:

*Chest Depth—NATU (Continued)*

ARMY '66: *Chest Depth*  
FAA: *Chest Depth*  
KOREA: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*  
USAF '50: *Chest Depth*  
USMC: *Chest Depth*  
USN: *Chest Depth*

Not Equivalent:

AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back  
ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer [projects] †downward and backward † Pressure applied  
BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter  
FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage]  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage † intermediate stage † extremes of inspiration and of expiration  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage † †mean of measurements taken at the extremes of inspiration and of expiration  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation. † †measurement . . . made in the intermediate stage † extremes of inspiration and of expiration  
GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation. †mean of . . . extremes of inspiration and of expiration  
HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration  
HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration  
INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board † block placed at the nipple level

### ***Chest Depth—NATO (Continued)***

MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration

TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove

WAC: *Chest Depth* - left arm extended forward horizontally. . . . high in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

See Also:

*Trunk Depth*

## **CHEST DEPTH**

**Reference: NAVY RECRUITS**

Subject stands erect, with his arms initially raised and then lowered after the anthropometer is in place under the right arm. The depth of the chest is measured at the level of the nipples during normal breathing. An anthropometer is used, and is held horizontally.

N: 4095

$\bar{X}$ : 22.78 cm; 8.97 in

SD: 1.90 cm; 0.75 in

V%: 8.32

**Similar Dimensions:**

Equivalent:

ARMY '66: *Chest Depth*

FAA: *Chest Depth*

KOREA: *Chest Depth*

NATO: *Chest Depth*

THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*

USAF '50: *Chest Depth*

USMC: *Chest Depth*

USN: *Chest Depth*

Not Equivalent:

**Chest Depth—NAVY RECRUITS (Continued)**

- AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back
- ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer [projects] †downward and backward † Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter
- FRANCE '65: *Diamètre antéro-postérieur de la poitrine* - [at the . . . fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage † †intermediate stage † extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage † †mean of the measurements taken at the extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation. † †measurement . . . made in the intermediate stage † extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation. † †mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Mean]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board † block placed at the nipple level
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration
- TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- WAC: *Chest Depth* - left arm extended forward horizontally. . . hgh in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

*Chest Depth—NAVY RECRUITS (Continued)*

**See Also:**

*Trunk Depth*

**CHEST DEPTH**

**Reference: TUFTS**

Horizontal anteroposterior dimension at nipple level. Contact to sternum (breast-bone); fixed arm of anthropometer in spinal groove.

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Chest Depth*

ARMY ARMORED: *Chest Depth*

**Not Equivalent:**

ARMY '66: *Chest Depth* - An anthropometer [with straight arms] is used  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back  
ARMY AVIATORS: *Chest Depth* - [An anthropometer with straight arms is used.]

ARMY QM: *Chest Depth* - body of anthropometer . . . [projects] †downward and backward† Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale

FAA: *Chest Depth* - [An anthropometer with straight arms is used.]

FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage]

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - †at the level of the upper border of the fourth chondro-sternal articulation

GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation.

HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 de-

### ***Chest Depth—TUFTS (Continued)***

grees

HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation

INDIA: *Chest [Depth, Sitting]* - back against one wing of the board† block placed at the nipple level

KOREA: *Chest Depth* - [An anthropometer with straight arms is used.]

MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae

NATO: *Chest Depth* - [An anthropometer with straight arms is used.]

NAVY RECRUITS: *Chest Depth* - An anthropometer [with straight arms] is used

THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - [An anthropometer with straight arms is used.]

USAF '50: *Chest Depth* - [An anthropometer with straight arms is used.]

USMC: *Chest Depth* - An anthropometer [with straight arms] is used

USN: *Chest Depth* - [An anthropometer with straight arms is used.]

WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla

Indeterminable:

None

See Also:

*Trunk Depth*

## **CHEST DEPTH**

Reference: USAF '50

Subject stands erect with his arms initially raised and then lowered after the instrument is in place. Holding the anthropometer horizontally on the subject's right side, at the level of the nipples, measure the depth of the chest during normal breathing.

N: 4063

$\bar{X}$ : 23.01 cm; 9.06 in

SD: 1.91 cm; 0.75 in

V%: 8.30

Similar Dimensions:

Equivalent:

**Chest Depth—USAF '50 (Continued)**

ARMY '66: Chest Depth  
 FAA: Chest Depth  
 KOREA: Chest Depth  
 NATO: Chest Depth  
 NAVY RECRUITS: Chest Depth  
 THOUSAND AVIATORS: Chest Anterior-Posterior Diameter  
 USMC: Chest Depth  
 USN: Chest Depth

**Not Equivalent:**

AAF: Chest Depth - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
 ARMY ARMORED: Chest Depth - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
 ARMY ARMORED: Chest Thickness - Greatest thickness from front to back  
 ARMY QM: Chest Depth - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer . . . [projects] †downward and backward † Pressure applied  
 BULGARIA: Antero-Posterior Diameter of the Chest - from mesosternale . . . Measured with pelvimeter  
 FRANCE '65: Diamètre antéro - postérieur de la poitrine - [at the . . . fourth costal cartilage]  
 GENEVA: Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage] - at the level of the base of the ensiform [xiphoid] cartilage † †intermediate stage † †extremes of inspiration and of expiration  
 GENEVA: Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform [xiphoid] cartilage † †mean of the measurements taken at the extremes of inspiration and of expiration  
 GENEVA: Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage] - at the level of the upper border of the fourth chondro-sternal articulation. † †measurement . . . made in the intermediate stage † †extremes of inspiration and of expiration  
 GENEVA: Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean] - at the level of the upper border of the fourth chondro-sternal articulation. † †mean of . . . extremes of inspiration and of expiration  
 HRDLICKA: Antero-Posterior Diameter of the Chest [Men] - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration  
 HRDLICKA: Antero-Posterior Diameter of the Chest [Women] - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration  
 INDIA: Chest [Depth, Sitting] - seat . . . back against one wing of the board † block placed at the nipple level

***Chest Depth—USAF '50 (Continued)***

MONTAGU: *Chest Depth* or *Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration

TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove

WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

**See Also:**

*Trunk Depth*

**CHEST DEPTH**

**Reference: USMC**

Subject stands erect, with his arms initially raised and then lowered after the anthropometer is in place under the right arm. The depth of the chest is measured at the level of the nipples during normal breathing. An anthropometer is used, and is held horizontally.

N: 2008  
 $\bar{X}$ : 23.26 cm; 9.16 in  
SD: 1.75 cm; 0.69 in  
V%: 7.57

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Depth*  
FAA: *Chest Depth*  
KOREA: *Chest Depth*  
NATO: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*  
USAF '50: *Chest Depth*  
USN: *Chest Depth*

**Not Equivalent:**

*Chest Depth—USMC (Continued)*

- AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back
- ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer . . . [projects] †downward and backward† Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter
- FRANCE 65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage]
- GENEVA *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - at the level of the base of the ensiform [xiphoid] cartilage† †intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform [xiphoid] cartilage† †mean of the measurements taken at the extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - at the level of the upper border of the fourth chondro-sternal articulation.† †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation†. †mean of . . . extremes of inspiration and expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board† block placed at the nipple level
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration
- TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove
- WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

**Indeterminable:**

- ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

*Chest Depth—USMC (Continued)*

**See Also:**

*Trunk Depth*

**CHEST DEPTH**

**Reference: USN**

Subject stands erect with his arms initially raised and then lowered after the instrument is in place. Holding the anthropometer horizontally on the subject's right side at the level of the nipples, measure the depth of the chest during normal breathing.

N: 1549  
 $\bar{X}$ : 23.85 cm; 9.39 in  
SD: 1.79 cm; 0.71 in  
V% 7.53

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Chest Depth*  
FAA: *Chest Depth*  
KOREA: *Chest Depth*  
NATO: *Chest Depth*  
NAVY RECRUITS: *Chest Depth*  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter*  
USAF '50: *Chest Depth*  
USMC: *Chest Depth*

**Not Equivalent:**

AAF: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove  
ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back  
ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer . . . [projects] †downward and backward† Pressure applied  
BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . Measured with pelvimeter  
FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth

### *Chest Depth—USN (Continued)*

costal cartilage.]

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [Xiphoid - Intermediate Stage] - at the level of the base of the ensiform [xiphoid] cartilage† †intermediate stage† †extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [Xiphoid - Mean] - at the level of the base of the ensiform [xiphoid] cartilage† †mean of the measurements taken at the extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Intermediate Stage] - at the level of the upper border of the fourth chondro-sternal articulation.† †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [Mesosternale - Mean] - at the level of the upper border of the fourth chondro-sternal articulation†. †mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration

INDIA: *Chest [Depth, Sitting]* - seat . . . back against one wing of the board† block placed at the nipple level

MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae . . . mean of . . . measurements made at expiration and inspiration

TUFTS: *Chest Depth* - Contact to sternum . . . fixed arm of anthropometer in spinal groove

WAC: *Chest Depth* - left arm extended forward horizontally . . . high in the axilla . . . maximum anterior-posterior diameter

Indeterminable:

ARMY AVIATORS: *Chest Depth* - [position of subject's arms not specified]

See Also:

*Trunk Depth*

## **CHEST DEPTH**

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon† with the

*Chest Depth—WAC (Continued)*

left arm extended forward horizontally. Anthropometer held horizontally and as high in the axilla as possible without exerting pressure. Measurement taken as the maximum anterior-posterior diameter of the chest. No pressure.

No Data Available

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

AAF: *Chest Depth* - at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY '66: *Chest Depth* - at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Depth* - at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY ARMORED: *Chest Thickness* - Greatest thickness from front to back

ARMY AVIATORS: *Chest Depth* - at nipple level

ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples . . . body of anthropometer . . . [projects] †downward and backward † Pressure applied

BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale. Measured with pelvimeter

FAA: *Chest Depth* - at the nipple line

FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [at the . . . fourth costal cartilage]

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [*Xiphoid - Intermediate Stage*] - at the level of the base of the ensiform [xiphoid] cartilage †intermediate stage †extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 1) [*Xiphoid - Mean*] - at the level of the base of the ensiform [xiphoid] cartilage †mean of the measurements taken at the extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [*Mesosternale - Intermediate Stage*] - at the level of the upper border of the fourth chondrosternal articulation. †measurement . . . made in the intermediate stage †extremes of inspiration and of expiration

GENEVA: *Antero-Posterior Diameter of the Thorax*, (no. 2) [*Mesosternale - Mean*] - at the level of the upper border of the fourth chondrosternal articulation. †mean of . . . extremes of inspiration and of expiration

HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - at the nipples †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees

### *Chest Depth—WAC (Continued)*

HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
INDIA: *Chest [Depth, Sitting]* - seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level  
KOREA: *Chest Depth* - at the level of the nipples  
MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae  
NATO: *Chest Depth* - at the level of the nipples  
NAVY RECRUITS: *Chest Depth* - at the level of the nipples  
THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - at the level of the nipple  
TUFTS: *Chest Depth* - at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove  
USAF '50: *Chest Depth* - at the level of the nipples  
USMC: *Chest Depth* - at the level of the nipples  
USN: *Chest Depth* - at the level of the nipples

Indeterminable:

None

See Also:

*Trunk Depth*

## **CHEST GIRTH AT ARMSCYE**

### **Reference: WOMEN**

Tape. . . . The subject stood erect. Care was taken that the shoulders were relaxed. . . . The tape was placed around the trunk without constriction with the zero point at the center back. The upper border of the tape rested under the arms at the level of the armscye of the trunk and passed through the underarm midpoints †placed with reference to the natural folds in the armpit and the total width of the shoulder . . . The level of the midpoint was set with respect to the more clearly defined folds . . . A short, thin line on the trunk marked the underarm scye level† of the right and left armscye. When the tape was satisfactorily placed, the measurer passed around to the side of the subject to check the relative positions of the anterior and posterior arcs of the girth and to be sure they lay in the same horizontal plane. The reading was taken at the midpoint of respiration. [Subject wore a snug bandeaux]

*Chest Girth at Armscye—WOMEN (Continued)*

N: 10042  
 $\bar{X}$ : 88.32 cm; 34.77 in  
SD: 8.13 cm; 3.20 in  
V%: 9.2

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

- AAF: *Chest Circumference*—just above nipples [Measured on men.]
- ARMY '66: *Chest Circumference*—maximum . . . at the level of the nipples [Measured on men.]
- ARMY ARMORED: *Chest Circumference*—just above nipples [Measured on men.]
- ARMY AVIATORS: *Chest Circumference*—at nipple level [Measured on men.]
- ARMY QM: *Chest Circumference*—tape on the areolae above the nipples [Measured on men.]
- AUSTRALIA: *Chest [Circumference]*—[Measured on men.]
- BELGIUM: *Périmètre thoracique [Expiration]*—[at the . . . nipples . . . exhales . . . as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Inspiration]*—[at the . . . nipples . . . inhales as deeply as possible] [Measured on men.]
- BELGIUM: *Périmètre thoracique [Mean]*—[at the . . . nipples] [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Men]*—just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference at Pause [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Exhaling [Men]*—maximum amount of air exhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Exhaling [Women]*—the tape passes immediately below the mammary glands kept in their uppermost position
- BULGARIA: *Chest Circumference upon Inhaling [Men]*—maximum amount of air inhaled †just under the mammilla in front [Measured on men.]
- BULGARIA: *Chest Circumference upon Inhaling [Women]*—maximum amount of air inhaled †the tape passes immediately below the mammary glands kept in their uppermost position

*Chest Girth at Armscye—WOMEN (Continued)*

- COMAS: *Chest Circumference* [Axillary, Calm Respiration] — [In reference dimension, subject wore a snug bandeaux.] [This dimension is not equivalent when measured on men.]
- COMAS: *Chest Circumference* [Axillary, Full Exhalation]—full exhalation
- COMAS: *Chest Circumference* [Axillary, Full Inhalation]—full inhalation
- COMAS: *Chest Circumference* [Fourth Rib, Calm Respiration, Women]—at the height of the fourth chondrosternal articulation
- COMAS: *Chest Circumference* [Fourth Rib, Full Exhalation, Women]—at the height of the fourth chondrosternal articulation . . . minimum chest circumference at full exhalation
- COMAS: *Chest Circumference* [Fourth Rib, Full Inhalation, Women] — at the height of the fourth chondrosternal articulation . . . maximum chest circumference at full inhalation
- COMAS: *Chest Circumference* [Nipples, Calm Respiration, Men]—at the nipples [Measured on men.]
- COMAS: *Chest Circumference* [Nipples, Full Exhalation, Men]—at the nipples . . . full exhalation [Measured on men.]
- COMAS: *Chest Circumference* [Nipples, Full Inhalation, Men] — at the nipples . . . full inhalation [Measured on men.]
- COMAS: *Chest Circumference* [Xiphoid, Calm Respiration]—at the level of the xiphoid cartilage
- COMAS: *Chest Circumference* [Xiphoid, Full Exhalation]—at the level of the xiphoid cartilage . . . at full exhalation
- COMAS: *Chest Circumference* [Xiphoid, Full Inhalation] — at the level of the xiphoid cartilage . . . at full inhalation
- FAA: *Chest Circumference*—Maximum thoracic circumference . . . nipples [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Expiration]—[at . . . xiphoid process . . . after . . . deep exhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Inspiration]—[at . . . xiphoid process . . . after deep inhalation] [Measured on men.]
- FRANCE '55: *Périmètre thoracique* [Mean]—[at . . . xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire*—[tape . . . passes around above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre sus-mamelonnaire en inspiration forcée*—[forced inspiration . . . above the two nipples] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien au repos*—[tape . . . level with the xiphoid process] [Measured on men.]
- FRANCE '65: *Périmètre xiphoidien en inspiration forcée*—[forced inspiration . . . level with the xiphoid process] [Measured on men.]
- GENEVA: *Thoracic Circumference* [Intermediate]—base of the ensiform cartilage
- GENEVA: *Thoracic Circumference* [Mean]—base of the ensiform cartilage

*Chest Girth at Armscye—WOMEN (Continued)*

- JAPAN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]
- KOREA: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]
- MARTIN: *Umfang der Brust bei Expiration*—[maximum possible expiration]
- MARTIN: *Umfang der Brust bei Inspiration*—[inhale deeply]
- MARTIN: *Umfang der Brust bei ruhigem Atmen*—[level with mesosternale]
- MARTIN-SALLER: *Umfang der Brust bei Expiration*—[under bottom edge of the scapulae . . . over the areola . . . maximum possible expiration]
- MARTIN-SALLER: *Umfang der Brust bei Inspiration*—[under bottom edge of the scapulae . . . over the areola . . . inhale as deeply as possible]
- MARTIN-SALLER: *Umfang der Brust bei ruhigem Atmen*—[under bottom edge of the scapulae . . . over the areola]
- MONTAGU: *Axillary Chest Girth*—[When measured on men.] [When measured on women, foundation garment not specified.]
- MONTAGU: *Mesosternale Chest Girth*—at the level of the mesosternale
- NATO: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]
- NAVY RECRUITS: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]
- THAI: *Chest Circumference*—average . . . at level of nipples [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Expiration*—at the fourth intercostal space . . . at maximal expiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Inspiration*—at the fourth intercostal space . . . at maximal inspiration [Measured on men.]
- THOUSAND AVIATORS: *Chest Circumference Mid-Breath*—at the fourth intercostal space [Measured on men.]
- TUFTS: *Chest Circumference*—just above nipples [Measured on men.]
- USAF '50: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]
- USMC: *Chest Circumference*—maximum . . . at the level of the nipples during normal breathing [Measured on men.]
- USN: *Chest Circumference*—nipples . . . maximum . . . during normal breathing [Measured on men.]
- VIETNAM: *Chest Circumference*—nipples [Measured on men.]
- WAC: *Breast Circumference*—passing over both nipples. [Bra]
- WAC: *Chest Circumference*—horizontally just below the breasts. [Bra]
- WAF RECRUITS: *Bust Circumference*—at the level of the nipples . . . at the maximum dimension during normal breathing. [Bra]

*Chest Girth at Armscye—WOMEN (Continued)*

WAF RECRUITS: *Chest Circumference (Over)*—across the back at the level of the nipples . . . across front above fullness of the breasts . . . [Bra]

WAF RECRUITS: *Chest Circumference (Under)*—across the back at the level of the nipples . . . across front below fullness of the breasts . . . [Bra]

WASP: *Chest Girth*—maximum . . . over breasts. [Bra?]

WOMEN: *Bust Circumference*—maximum girth

Indeterminable:

None

**See Also:**

*Anterior Bust Arc*

## CHEST THICKNESS

**Reference: ARMY ARMORED**

Stand at attention. Greatest thickness from front to back in thorax.

N: 914

Median: 24.4 cm; 9.6 in

SD: NDA

V%: NDA

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Chest Depth*—at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY '66: *Chest Depth*—arms . . . lowered . . . at the level of the nipples during normal breathing

ARMY ARMORED: *Chest Depth*—at nipple level. Contact to sternum . . . fixed arm of anthropometer in spinal groove

ARMY AVIATORS: *Chest Depth*—at nipple level . . . normal breathing

**Chest Thickness—ARMY ARMORED (Continued)**

- ARMY QM: *Chest Depth* - sliding arm of the anthropometer . . . just above the nipples. body of anthropometer . . . [projects] †downward and backward† Pressure applied
- BULGARIA: *Antero-Posterior Diameter of the Chest* - from mesosternale . . . calm breathing and relaxed arms. Measured with pelvimeter
- FAA: *Chest Depth* - at the nipple line during normal breathing. [Arms are pendant.]
- FRANCE '65: *Diamètre antéro - postérieur de la poitrine* - [calm respiration . . . at the . . . fourth costal cartilage]
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Intermediate Stage]* - upper limbs are pendant . . . at the level of the base of the ensiform [xiphoid] cartilage† †intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 1) [Xiphoid - Mean]* - upper limbs are pendant . . . at the level of the base of the ensiform [xiphoid] cartilage† †mean of the measurements taken at the extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Intermediate Stage]* - upper limbs are pendant† †at the level of the upper border of the fourth chondro-sternal articulation†. †measurement . . . made in the intermediate stage† †extremes of inspiration and of expiration
- GENEVA: *Antero-Posterior Diameter of the Thorax, (no. 2) [Mesosternale - Mean]* - upper limbs are pendant† †at the level of the upper border of the fourth chondro-sternal articulation† †mean of . . . extremes of inspiration and of expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Men]* - at the nipples †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- HRDLICKA: *Antero-Posterior Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation †forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees . . . medium between normal inspiration and expiration
- INDIA: *Chest [Depth, Sitting]* - seat . . . adjusted . . . back against one wing of the board† block placed at the nipple level
- KOREA: *Chest Depth* - arms . . . lowered . . . at the level of the nipples . . . during normal breathing
- MONTAGU: *Chest Depth or Antero-Posterior Diameter of the Thorax* - At the level of the inferior angles of the scapulae. . . mean of . . . measurements made at expiration and inspiration . . . breathing normally
- NATO: *Chest Depth* - arms . . . lowered . . . at the level of the nipples . . . during normal breathing
- NAVY RECRUITS: *Chest Depth* - arms . . . lowered . . . at the level of the nipples during normal breathing
- THOUSAND AVIATORS: *Chest Anterior-Posterior Diameter* - at the level of

**Chest Thickness—ARMY ARMORED (Continued)**

the nipple during normal breathing†. Maximal anterior-posterior diameter  
... arms at his sides  
TUFTS: *Chest Depth* - at nipple level. Contact to sternum ... fixed arm of  
anthropometer in spinal groove  
USAF '50: *Chest Depth* - arms ... lowered ... at the level of the nipples  
... during normal breathing  
USMC: *Chest Depth* - arms ... lowered ... at the level of the nipples dur-  
ing normal breathing  
USN: *Chest Depth* - arms ... lowered ... at the level of the nipples ...  
during normal breathing  
WAC: *Chest Depth* - left arm extended forward horizontally ... high in  
the axilla ... maximum anterior-posterior diameter

Indeterminable:

None

**See Also:**

*Trunk Depth*

**CHEST WIDTH**

**Reference:** ARMY ARMORED

Arms fully extended above head as far as possible, hands together; measure  
greatest width in upper chest region.

N: 918  
Median: 36.4 cm; 14.3 in  
SD: NDA  
V%: NDA

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

AAF: *Chest Breadth* - at nipple level  
ARMY '66: *Chest Breadth* - measured at the level of the nipples during nor-  
mal breathing

**Chest Width—ARMY ARMORED (Continued)**

ARMY ARMORED: *Chest Breadth* - at nipple level  
ARMY QM: *Chest Breadth* - just above the nipples  
BULGARIA: *Transverse Diameter of the Chest* - at the height of meso-sternale  
FAA: *Chest Breadth* - at the nipple level, during normal breathing  
FRANCE '65: *Diamètre transverse de la poitrine* - [at the level of the fourth costal cartilage]  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate]* - at the level of the base of the ensiform cartilage  
GENEVA: *Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean]* - at the level of the base of the ensiform cartilage  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate]* - at the level of the upper border of the fourth chondro-sternal articulation  
GENEVA: *Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean]* - at the level of the upper border of the fourth chondro-sternal articulation  
HRDLICKA: *Transverse Diameter of the Chest [Men]* - at the line of the nipples . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body  
HRDLICKA: *Transverse Diameter of the Chest [Women]* - at the line of the fourth costo-sternal articulation . . . forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body  
KOREA: *Chest Breadth* - at the level of the nipples  
MONTAGU: *Chest Breadth or Transverse Diameter of the Thorax* - between the most lateral points on the chest. [Arms pendant]  
NATO: *Chest Breadth - Bone* - instrument at the level of the subject's nipples  
NATO: *Chest Breadth - Skin* - at the level of the subject's nipples  
NAVY RECRUITS: *Chest Breadth* - measured at the level of the nipples during normal breathing  
THOUSAND AVIATORS: *Chest Breadth* - at the level of the nipple during normal breathing  
USAF '50: *Chest Breadth* - at the level of the nipples  
USMC: *Chest Breadth* - measured at the level of the nipples during normal breathing  
USN: *Chest Breadth* - instrument at the level of the subject's nipples  
WAC: *Chest Breadth* - arms extended horizontally to the side. . . needles extend downward and backward . . . high in the axilla  
WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

None

See Also:

**Chest Width—ARMY ARMORED (Continued)**

*Anterior Chest Width*  
*Posterior Chest Width*

**CHIN [HEIGHT]**

**Reference: GENEVA**

†The subject stands erect on a horizontal and resisting plane surface . . .: no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downward, the heels in contact, and the axis of vision horizontal† [A]natomical landmark: the inferior border of the mandible in the median plane †the height of the "anatomical landmark" above the ground is to be determined†.

No Data Available

**Similar Dimensions:**

None

**CHIN-NECK PROJECTION**

**Reference: TUFTS**

Subject in horizontal eye-ear plane. Straight line distance between tip of thyroid cartilage and menton (the most anterior point in the midline of the lower border of the mandible).

No Data Available

**Similar Dimensions:**

None

**CIRCUMFERENCE [HEAD]**

**Reference: TUFTS**

Distance around the largest part of the head.

No Data Available

**Similar Dimensions:**

*Circumference [Head]—TUFTS (Continued)*

Equivalent:

None

Not Equivalent:

None

Indeterminable:

Reference dimension description does not specify position of tape vis-a-vis brow ridges.

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
AUSTRALIA: *Head Circumference (Size)*  
BULGARIA: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
MARTIN: *Horizontal Umfang des Kopfes*  
MONTAGU: *Maximum Circumference of the Head*  
NAVY RECRUITS: *Head Circumference*  
NATO: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

**CIRCUMFERENCE OF THE CALF OF THE LEG**

Reference: GENEVA

[T]he maximum value.

***Circumference Of The Calf Of The Leg—GENEVA (Continued)***

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: Calf Circumference  
ARMY '66: Calf Circumference  
ARMY ARMORED: Calf Circumference  
ARMY QM: Calf Circumference  
FAA: Calf Circumference  
FRANCE '65: *Périmètre maximum de la jambe*  
JAPAN: Calf Circumference  
KOREA: Calf Circumference  
MARTIN: *Groesster Umfang des rechten Unterschenkels*  
NATO: Calf Circumference  
NAVY RECRUITS: Calf Circumference  
THAI: Calf Circumference  
THOUSAND AVIATORS: Calf Circumference  
USAF '50: Calf Circumference  
USMC: Calf Circumference  
USN: Calf Circumference  
VIETNAM: Calf Circumference  
WAF RECRUITS: Calf Circumference  
WASP: Calf Circumference  
WOMEN: Calf Girth

**Not Equivalent:**

HRDLICKA: Girth of Calf - leg forms a little larger than a right angle with thigh

**Indeterminable:**

None

**CIRCUMFERENCE OF THE NECK**

**Reference: MONTAGU**

(Tape) At the level of the most prominent portion of the thyroid cartilage.

No Data Available

### *Circumference Of The Neck—MONTAGU (Continued)*

#### **Similar Dimensions:**

##### **Equivalent:**

NATO: *Neck Circumference, Maximum*  
USN: *Neck Circumference*

##### **Not Equivalent:**

ARMY '66: *Neck Circumference* - just below the "Adam's apple"  
ARMY AVIATORS: *Neck Circumference* - just below the Adam's apple  
ARMY QM: *Neck Circumference* - below the . . . thyroid cartilage  
AUSTRALIA: *Neck Size* - just below the Adam's apple  
BULGARIA: *Neck Circumference* - immediately under Adam's apple  
FAA: *Neck Circumference* - just below the "Adam's Apple"  
JAPAN: *Neck Circumference* - just below the 'Adam's Apple'  
KOREA: *Neck Circumference* - just below the 'Adam's Apple'  
NAVY RECRUITS: *Neck Circumference* - just below the "Adam's apple"  
THAI: *Neck Circumference* - just below Adam's apple  
USAF '50: *Neck Circumference* - just below the 'Adam's Apple'  
USMC: *Neck Circumference* - just below the "Adam's apple"  
VIETNAM: *Neck Circumference* - just below Adam's apple  
WAC: *Neck Circumference* - just below the voice box  
WAF RECRUITS: *Neck Circumference* - just below the thyroid cartilage

##### **Indeterminable:**

FRANCE '65: *Périmètre du cou* [Reference dimension description does not specify a point on the back of the neck]

#### **See Also:**

*Neck Base Girth*

### **CIRCUMFERENCE OF THE UPPER ARM**

#### **Reference: GENEVA**

The maximum circumference obtained *below* the insertion of the deltoid muscle, the arm being held in the position of rest.

No Data Available

#### **Similar Dimensions:**

***Circumference Of The Upper Arm—GENEVA (Continued)***

**Equivalent:**

BULGARIA: *Biceps Circumference Extended*  
FAA: *Upper-Arm Circumference*  
MARTIN: *Groesster Umfang des rechten Oberarms bei Streckung*  
MONTAGU: *Maximum Circumference of the Right Arm*  
WASP: *Upper Arm Circumference*

**Not Equivalent:**

ARMY '66: *Biceps Circumference, Relaxed* - midway between the shoulder and the elbow  
ARMY QM: *Lower Upper Arm Circumference* - one half inch above the maximum prominence of the entepicondylar process  
ARMY QM: *Middle Upper Arm Circumference* - midway between the axilla and the . . . cubital fossa  
FRANCE '65: *Périmètre maximum du membre supérieur* - [at the inferior insertion of the deltoid muscle]  
NAVY RECRUITS: *Biceps Circumference, Relaxed* - midway between the shoulder and the elbow  
NATO: *Biceps Circumference, Extended* - at the . . . landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps . . . Mark with a line  
THAI: *Upper Arm Circumference* - mid-way between shoulder and elbow  
THOUSAND AVIATORS: *Biceps Resting [Circumference]* - midpoint . . . between the right acromial process and olecranon  
USMC: *Biceps Circumference, Relaxed* - midway between the shoulder and the elbow  
VIETNAM: *Upper Arm Circumference* - mid-way between shoulder and elbow  
WAC: *Upper Arm Circumference* - midway between the shoulder and elbow

**Indeterminable:**

None

**See Also:**

*Biceps Circumference, Flexed*

**CIRCUMFERENCE OF THE UPPER ARM [BICEPS FLEXED]**

**Reference: GENEVA**

[w]ith the biceps muscle in the contracted state. †The maximum circumference

***Circumference Of The Upper Arm [Biceps Flexed]—GENEVA (Continued)***

obtained below the insertion of the deltoid muscle.

No Data Available

**Similar Dimensions:**

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference, Flexed*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
MARTIN: *Groesster Umfang des rechten Oberarmes bei Beugung*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference (Flexed)*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference (Flexed)*  
USN: *Biceps Circumference (Flexed)*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference] - midpoint of the arm between the right acromial process and olecranon*

Indeterminable:

None

**See Also:**

*Biceps Circumference, Relaxed*

**COAT LENGTH**

**Reference: THAI**

Measured as distance from the level of the base of the neck (cervicale) to the level of the first knuckle of the right thumb (base of proximal phalanx).

N: 2950  
 $\bar{X}$ : 64.8 cm; 25.51 in  
SD: 4.2 cm; 1.65 in  
V%: 6.5

**Similar Dimensions:**

None

## CORONAL ARC

### Reference: WAF RECRUITS

The subject sits looking straight ahead (the head in the Frankfurt plane). Measure the arc from right to left trignon over the top of the skull with the tape in a vertical plane.

N: 845  
X: 35.95 cm; 14.15 in  
SD: 1.57 cm; 0.62 in  
V%: 4.36

### Similar Dimensions:

#### Equivalent:

ARMY AVIATORS: *Bitracion-Coronal Arc*  
FRANCE '65: *Longueur de l'arc bitragus coronal*  
KOREA: *Bitracion-Coronal Arc*  
MARTIN: *Transversaler Kopfbogen*  
NATO: *Bitracion-Coronal Arc*  
USAF '50: *Bitracion-Coronal Arc*  
USN: *Bitracion-Coronal Arc*

#### Not Equivalent:

None

#### Indeterminable:

None

## COUDEE [ARM'S LENGTH]

### Reference: FRANCE '55

L'avant-bras du sujet repose entièrement du côté cubital, sur une table, les doigts de la main allongés. On recherche la distance entre la pointe de l'olécrane et l'extrémité distale de la première phalange du médus. On obtient ainsi la longueur de la coudee.

[The forearm, resting on the ulna, was placed on the table with fingers extended. The distance between olecranon and tip of middle finger represents the length of the forearm]

**Coudees [Arm's Length]—FRANCE '55 (Continued)**

N: 1000  
 $\bar{X}$ : 46.57 cm; 18.33 in  
SD: 2.39 cm; 0.94 in  
V%: 5.1

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '65: *Longueur olécrâne*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip - Elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**CROSS BACK WIDTH**

**Reference: ARMY QM**

†Subject stands erect with heels together, eyes straight ahead† Minimum distance between posterior armscye points †The point where the medial edge of the tape crosses midway between the upper angle of the axilla and acromiale† fol-

**Cross Back Width—ARMY QM (Continued)**

lowing the curve of the back.

N: 24432  
X: 37.63 cm; 14.82 in  
SD: 3.00 cm; 1.18 in  
V%: [7.97]

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

ARMY '66: *Interscye Breadth* - between the upper ends of the . . . creases  
JAPAN: *Interscye* - highest point in the crease  
KOREA: *Interscye* - highest point in the crease  
NATO: *Interscye* - upper end of the vertical . . . fold  
NAVY RECRUITS: *Interscye Breadth* - between the upper ends of the . . .  
                  creases  
THAI: *Interscye Breadth* - between armpit creases  
USAF '50: *Interscye* - highest point in the crease  
USN: *Interscye* - upper end of the vertical . . . fold  
USMC: *Interscye Breadth* - between the upper ends of the . . . creases  
VIETNAM: *Interscye Breadth* - between armpit creases  
WAC: *Cross Back Width* - most superior point of the axillary fold  
WAF: *Interscye* - tip of the crease  
WOMEN: *Posterior Chest Width* - at the level . . . of the seventh thoracic  
          vertebra

Indeterminable:

None

**See Also:**

*Interscye, Maximum*

**CROSS BACK WIDTH**

**Reference:** WAC

†Subject stood erect without stretching, eyes on an imaginary horizon but with

**Cross Back Width—WAC (Continued)**

feet slightly apart† with back to measurer. With the lower edge of tape resting on the most superior point of the axillary fold the measurement is taken from the left to the right axillary fold.

N: 3414  
X: 35.39 cm; 12.93 in  
SD: 2.81 cm; 1.11 in  
V%: [7.94]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Interscye Breadth*  
JAPAN: *Interscye*  
KOREA: *Interscye*  
NATO: *Interscye*  
NAVY RECRUITS: *Interscye Breadth*  
USAF: *Interscye*  
USMC: *Interscye Breadth*  
USN: *Interscye*  
WAF RECRUITS: *Interscye*

**Not Equivalent:**

ARMY QM: *Cross Back Width - midway between the upper angle of the axilla and acromiale*  
WOMEN: *Posterior Chest Width - at the level . . . of the seventh thoracic vertebra*

**Indeterminable:**

In the following sources, the points on the armpit creases, between which the measurement is made, are not specified.

THAI: *Interscye Breadth*  
VIETNAM: *Interscye Breadth*

**See Also:**

*Interscye, Maximum*

## CROTCH 1 HEIGHT

Reference: HANDS — FEMALE

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 1.

N: 211  
 $\bar{X}$ : 5.72 cm; 2.25 in  
SD: 0.56 cm; 0.22 in  
V%: 9.73

Similar Dimensions:

Equivalent:

HANDS-MALE: *Crotch 1 Height*

Not Equivalent:

None

Indeterminable:

None

## CROTCH 1 HEIGHT

Reference: HANDS — MALE

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 1.

N: 148  
 $\bar{X}$ : 6.81 cm; 2.68 in  
SD: 0.60 cm; 0.23 in  
V%: 8.73

Similar Dimensions:

Equivalent:

HANDS-FEMALE: *Crotch 1 Height*

Not Equivalent:

**Crotch 1 Height—HANDS-MALE (Continued)**

None

Indeterminable:

None

**CROTCH 2 HEIGHT**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 2.

N: 211  
X: 9.86 cm; 3.88 in  
SD: 0.60 cm; 0.24 in.  
V%: 6.09

**Similar Dimensions:**

Equivalent:

HANDS-MALE: Crotch 2 Height

Not Equivalent:

None

Indeterminable:

None

**CROTCH 2 HEIGHT**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 2.

N: 148  
X: 11.05 cm; 4.35 in  
SD: 0.60 cm; 0.24 in  
V%: 5.43

***Crotch 2 Height—HANDS-MALE (Continued)***

**Similar Dimensions:**

**Equivalent:**

**HANDS-MALE: *Crotch 2 Height***

**Not Equivalent:**

**None**

**Indeterminable**

**None**

**CROTCH 3 HEIGHT**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 3.

N: 211  
X: 9.81 cm; 3.86 in  
SD: 0.59 cm; 0.23 in  
V%: 6.04

**Equivalent:**

**HANDS-MALE: *Crotch 3 Height***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**CROTCH 3 HEIGHT**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the level of hand

***Crotch 3 Height—HANDS-MALE (Continued)***

crotch 3.

N: 148  
 $\bar{X}$ : 10.87 cm; 4.28 in  
SD: 0.58 cm; 0.23 in  
V%: 5.32

**Similar Dimensions:**

Equivalent:

HANDS-FEMALE: *Crotch 3 Height*

Not Equivalent:

None

Indeterminable:

None

**CROTCH 4 HEIGHT**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 4.

N: 211  
 $\bar{X}$ : 8.72 cm; 3.43 in  
SD: 0.60 cm; 0.24 in  
V%: 6.91

**Similar Dimensions:**

Equivalent:

HANDS-MALE: *Crotch 4 Height*

Not Equivalent:

None

Indeterminable:

**Crotch 4 Height—HANDS-FEMALE (Continued)**

None

**CROTCH 4 HEIGHT**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the level of hand crotch 4.

N: 148  
 $\bar{X}$ : 9.72 cm; 3.83 in  
SD: 0.51 cm; 0.20 in  
V%: 5.28

**Similar Dimensions:**

Equivalent:

HANDS-FEMALE: Crotch 4 Height

Not Equivalent:

None

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: AAF**

Vertical distance, subject standing, from crotch to floor.

No Data Available

**Similar Dimensions:**

Equivalent:

ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)  
ARMY QM: Inseam

***Crotch Height—AAF (Continued)***

AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: ARMY '66**

Subject stands erect, with his feet initially apart and then brought together after the anthropometer is in place. Crotch height is measured as the vertical distance from the floor (or standing surface) to the crotch. An anthropometer is used, with the anthropometer arm firmly in contact with the highest point in the crotch.

N: 6682  
 $\bar{X}$ : 82.93 cm; 32.65 in  
SD: 4.67 cm; 1.84 in  
V%: 5.64

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*

**Crotch Height—ARMY '66 (Continued)**

ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT (INSEAM)**

**Reference: ARMY AVIATORS**

The vertical distance from the floor to the lowest level of the crotch.

N: 500  
 $\bar{X}$ : 80.49 cm; 31.69 in  
SD: 4.17 cm; 1.64 in  
V%: [5.18]

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*

***Crotch Height (Inseam)—ARMY AVIATORS (Continued)***

KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

**Not Equivalent:**

WAC: *Inseam* - stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**CROTCH HEIGHT**

**Reference: JAPAN**

Subject stands erect, his legs slightly apart. Hold the anthropometer vertically in front of the subject and raise the instrument arm between the scrotum and right leg. Have the subject bring his heels together and raise the instrument arm until it firmly presses against the flesh of the midpoint of the crotch. Record the indicated distance from the floor.

N: 232  
 $\bar{X}$ : 74.53 cm; 29.34 in  
SD: 3.46 cm; 1.36 in  
V%: 4.60

**Similar Dimensions:**

**Equivalent:**

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*  
ARMY QM: *Inseam*

**Crotch Height—JAPAN (Continued)**

AUSTRALIA: *Inside Leg*  
KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT (INSEAM)**

**Reference: KOREA**

Subject stands erect, his legs slightly apart. Hold the anthropometer vertically in front of the subject and raise the instrument arm between the scrotum and right leg. Have the subject bring his heels together and raise the instrument arm until it firmly presses against the flesh of the midpoint of the crotch. Record the indicated distance from the floor.

N: 264  
X: 75.28 cm; 29.64 in  
SD: 3.52 cm; 1.39 in  
V%: 4.68

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*

**Crotch Height (Inseam)—KOREA (Continued)**

ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT (INSEAM)**

**Reference: NATO**

Subject stands erect, his legs slightly apart. Hold the anthropometer vertically in front of the subject and raise the instrument arm between the scrotum and right leg. Have the subject bring his heels together and raise the instrument arm until it presses firmly against the flesh of the midpoint of the crotch. Measure the indicated distance above the standing surface.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 78.78 cm; 31.02 in	80.14 cm; 31.55 in	80.62 cm; 31.74 in
SD: 3.89 cm; 1.53 in	3.90 cm; 1.54 in	4.23 cm; 1.69 in
V%: 4.94	4.86	5.32

**Similar Dimensions:**

Equivalent:

***Crotch Height (Inseam)—NATO (Continued)***

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*  
ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

**Not Equivalent:**

WAC: *Inseam* - stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**CROTCH HEIGHT**

**Reference: NAVY RECRUITS**

Subject stands erect, with his feet initially apart and then brought together after the anthropometer is in place. Crotch height is measured as the vertical distance from the floor (or standing surface) to the crotch. An anthropometer is used, with the anthropometer arm firmly in contact with the highest point in the crotch.

N: 4095  
X: 83.15 cm; 32.74 in  
SD: 4.59 cm; 1.81 in  
V%: 5.51

**Similar Dimensions:**

**Equivalent:**

**Crotch Height—NAVY RECRUITS (Continued)**

AAF: Crotch Height  
ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)  
ARMY QM: Inseam  
AUSTRALIA: Inside Leg  
JAPAN: Crotch Height  
KOREA: Crotch Height (Inseam)  
NATO: Crotch Height (Inseam)  
THAI: Crotch Height  
TUFTS: Crotch Height  
USAF '50: Crotch Height (Inseam)  
USMC: Crotch Height  
USN: Crotch Height  
VIETNAM: Crotch Height  
WAF RECRUITS: Crotch Height (Inseam)  
WASP: Crotch Height  
WOMEN: Crotch Height

Not Equivalent:

WAC: Inseam - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: THAI**

Measured as distance from floor to crotch.

N: 2950  
 $\bar{X}$ : 75.3 cm; 29.6 in  
SD: 3.9 cm; 1.5 in  
V%: 5.2

**Similar Dimensions:**

Equivalent:

AAF: Crotch Height  
ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)

***Crotch Height--THAI (Continued)***

ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '59: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: TUFTS**

Vertical distance, subject standing, from crotch to floor.

No Data Available.

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*  
ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*  
NAVY RECRUITS: *Crotch Height*

### **Crotch Height—TUFTS (Continued)**

THAI: Crotch Height  
USAF '50: Crotch Height (Inseam)  
USMC: Crotch Height  
USN: Crotch Height  
VIETNAM: Crotch Height  
WAF RECRUITS: Crotch Height (Inseam)  
WASP: Crotch Height  
WOMEN: Crotch Height

#### **Not Equivalent:**

WAC: Inseam - stands on left foot with right foot placed on a stool

#### **Indeterminable:**

None

### **CROTCH HEIGHT [INSEAM]**

#### **Reference: USAF '50**

Subject stands erect, his legs slightly apart. Hold the anthropometer vertically in front of the subject and raise the instrument arm between the scrotum and right leg. Have the subject bring his heels together and raise the instrument arm until it firmly presses against the flesh of the midpoint of the crotch. Record the indicated distance from the floor

N: 4062  
 $\bar{X}$ : 83.40 cm; 32.83 in  
SD: 4.39 cm, 1.73 in  
V%: 5.25

#### **Similar Dimensions:**

##### **Equivalent:**

AAF: Crotch Height  
ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)  
ARMY QM: Inseam  
AUSTRALIA: Inside Leg  
JAPAN: Crotch Height  
KOREA: Crotch Height (Inseam)  
NATO: Crotch Height (Inseam)

***Crotch Height (Inseam)—USAF '50 (Continued)***

NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: USMC**

Subject stands erect, with his feet initially apart and then brought together after the anthropometer is in place. Crotch height is measured as the vertical distance from the floor (or standing surface) to the crotch. An anthropometer is used, with the anthropometer arm firmly in contact with the highest point in the crotch.

N: 2008  
 $\bar{X}$ : 82.95 cm; 32.66 in  
SD: 4.62 cm; 1.82 in  
V%: 5.58

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*  
ARMY QM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*  
NATO: *Crotch Height (Inseam)*

***Crotch Height—USMC (Continued)***

NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*  
WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: USN**

Subject stands erect, his legs slightly apart. Hold the anthropometer vertically in front of the subject and raise the instrument arm between the scrotum and right leg. Have the subject bring his heels together and raise the instrument arm until it presses firmly against the flesh of the midpoint of the crotch. Measure the indicated distance above the standing surface.

N: 1549  
X: 84.36 cm; 33.21 in  
SD: 4.12 cm; 1.62 in  
V%: 4.88

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*  
ARMY '66: *Crotch Height*  
ARMY AVIATORS: *Crotch Height (Inseam)*  
ARMY AM: *Inseam*  
AUSTRALIA: *Inside Leg*  
JAPAN: *Crotch Height*  
KOREA: *Crotch Height (Inseam)*

**Crotch Height—USN (Continued)**

NATO: Crotch Height (Inseam)  
NAVY RECRUITS: Crotch Height  
THAI: Crotch Height  
TUFTS: Crotch Height  
USAF '50: Crotch Height (Inseam)  
USMC: Crotch Height  
VIETNAM: Crotch Height  
WAF RECRUITS: Crotch Height (Inseam)  
WASP: Crotch Height  
WOMEN: Crotch Height

**Not Equivalent:**

WAC: Inseam - stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**CROTCH HEIGHT**

**Reference: VIETNAM**

Measured as distance from floor to crotch.

N: 2128  
X: 73.9 cm; 29.1 in  
SD: 4.0 cm; 1.6 in  
V%: 5.4

**Similar Dimensions:**

**Equivalent:**

AAF: Crotch Height  
ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)  
ARMY QM: Inseam  
AUSTRALIA: Inside Leg  
JAPAN: Crotch Height  
KOREA: Crotch Height (Inseam)  
NATO: Crotch Height (Inseam)  
NAVY RECRUITS: Crotch Height  
THAI: Crotch Height

**Crotch Height—VIETNAM (Continued)**

TUFTS: Crotch Height  
USAF '50: Crotch Height (Inseam)  
USMC: Crotch Height  
USN: Crotch Height  
WAF RECRUITS: Crotch Height (Inseam)  
WASP: Crotch Height  
WOMEN: Crotch Height

Not Equivalent:

WAC: Inseam - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT (INSEAM)**

**Reference: WAF RECRUITS**

Subject stands with her legs slightly apart. Measure from the floor to the highest point in the crotch. This measurement is made from the front of the subject with the anthropometer.

N: 851  
X: 76.99 cm; 30.31 in  
SD: 4.15 cm; 1.63 in  
V%: 5.39

**Similar Dimensions:**

Equivalent:

AAF: Crotch Height  
ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)  
ARMY QM: Inseam  
AUSTRALIA: Inside Leg  
JAPAN: Crotch Height  
KOREA: Crotch Height (Inseam)  
NATO: Crotch Height (Inseam)  
NAVY RECRUITS: Crotch Height  
THAI: Crotch Height  
TUFTS: Crotch Height

***Crotch Height (Inseam)—WAF RECRUITS (Continued)***

USAF '50: *Crotch Height (Inseam)*

USMC: *Crotch Height*

USN: *Crotch Height*

VIETNAM: *Crotch Height*

WASP: *Crotch Height*

WOMEN: *Crotch Height*

Not Equivalent:

WAC: *Inseam* - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: WASP**

Vertical distance, subject standing, from crotch to floor.

***Women Pilots***

N: 447

X: 77.28 cm; 30.5 in

SD: NDA

V%: NDA

***Flying Nurses***

151

74.90 cm; 29.5 in

NDA

NDA

**Similar Dimensions:**

Equivalent:

AAF: *Crotch Height*

ARMY '66: *Crotch Height*

ARMY AVIATORS: *Crotch Height (Inseam)*

ARMY QM: *Inseam*

AUSTRALIA: *Inside Leg*

JAPAN: *Crotch Height*

KOREA: *Crotch Height (Inseam)*

NATO: *Crotch Height (Inseam)*

NAVY RECRUITS: *Crotch Height*

THAI: *Crotch Height*

TUFTS: *Crotch Height*

USAF '50: *Crotch Height (Inseam)*

**Crotch Height—WASP (Continued)**

USMC: Crotch Height  
USN: Crotch Height  
VIETNAM: Crotch Height  
WAF RECRUITS: Crotch Height (Inseam)  
WOMEN: Crotch Height

Not Equivalent:

WAC: Inseam - stands on left foot with right foot placed on a stool

Indeterminable:

None

**CROTCH HEIGHT**

**Reference: WOMEN**

Anthropometer. . . . The subject stood erect in a normal, nonfatigue position. . . . The subject was asked to pull up the measuring suit by the waist band. The anthropometer was held in the right hand and the movable arm raised with the left until the brass point rested on the landmark *†the subject rested her left foot on a chair . . . The subject's right foot was directed straight forward. The middle line of the inner surface of the right thigh was sighted and marked. . . . This landmark corresponds to the intersection of the inside seams of the trouser legs with the crotch seams†. [Height from floor to landmark]*

N: 10042  
X: 72.47 cm; 28.53 in  
SD: 4.42 cm; 1.74 in  
V%: 6.1

**Similar Dimensions:**

Equivalent:

AAF: Crotch Height  
ARMY '66: Crotch Height  
ARMY AVIATORS: Crotch Height (Inseam)  
ARMY QM: Inseam  
AUSTRALIA: Inside Leg  
JAPAN: Crotch Height  
KOREA: Crotch Height (Inseam)  
NATO: Crotch Height (Inseam)

**Crotch Height—WOMEN (Continued)**

NAVY RECRUITS: *Crotch Height*  
THAI: *Crotch Height*  
TUFTS: *Crotch Height*  
USAF '50: *Crotch Height (Inseam)*  
USMC: *Crotch Height*  
USN: *Crotch Height*  
VIETNAM: *Crotch Height*  
WAF RECRUITS: *Crotch Height (Inseam)*  
WASP: *Crotch Height*

**Not Equivalent:**

WAC: *Inseam* - stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**CROTCH LENGTH**

**Reference: JAPAN**

Subject stands with his legs slightly apart. With the tape passing through the crotch and over the right buttock, measure the surface distance from the point marked on the front of the waist [the natural waistline, the level of greatest lateral indentation in the region of the abdomen] to the waist line [same] marked directly above the buttock.

N: 23;  
 $\bar{X}$ : 67.24 cm.; 26.47 in  
SD: 4.53 cm; 1.80 in  
V%: 6.81

**Similar Dimensions:**

**Equivalent:**

KOREA: *Crotch Length*  
USAF '50: *Crotch Length*  
WAC: *Total Crotch Length*

**Not Equivalent:**

ARMY '50: *Total Crotch Length* - a plane midway between the lowest mar-

### **Crotch Length—JAPAN (Continued)**

*gins of the ribs . . . and the superior margin . . . of the iliac crests*  
NATO: Crotch Length-Omphalion - horizontal plane through omphalion  
WAF RECRUITS: Crotch Length - [between omphalion and greatest lateral indentation]  
WOMEN: Total Crotch Length - left foot on a stool . . . at average waist level . . . lower edge of the lowest rib

Indeterminable:

None

### **CROTCH LENGTH**

Reference: KOREA

Subject stands with his legs slightly apart. With the tape passing through the crotch and over the right buttock, measure the surface distance from the point marked on the front of the waist *†the natural waistline, the level of greatest lateral indentation in the region of the abdomen†* to the waist line [same] marked directly above the buttock.

N: 264  
 $\bar{X}$ : 65.48 cm; 25.80 in  
SD: 4.90 cm; 1.93 in  
V%: 7.48

Similar Dimensions:

Equivalent:

JAPAN: Crotch Length  
USAF '50: Crotch Length  
WAC: Total Crotch Length

Not Equivalent:

ARMY QM: Total Crotch Length - a plane midway between the lowest margins of the ribs . . . and the superior margin . . . of the iliac crests  
NATO: Crotch Length-Omphalion - horizontal plane through omphalion  
WAF RECRUITS: Crotch Length - [between omphalion and greatest lateral indentation]  
WOMEN: Total Crotch Length - left foot on a stool . . . at average waist level . . . lower edge of the lowest rib

**Crotch Length—KOREA (Continued)**

Indeterminable:

None

**CROTCH LENGTH**

**Reference: USAF '50**

Subject stands with his legs slightly apart. With the tape passing through the crotch and over the right buttock, measure the surface distance from the point marked on the front of the waist *[the natural waistline, the level of greatest lateral indentation in the region of the abdomen]* to the waist line [same] marked directly above the buttock.

N: 4053  
X: 71.63 cm; 28.20 in  
SD: 5.08 cm; 2.00 in  
V%: 7.09

**Similar Dimensions:**

Equivalent:

JAPAN: *Crotch Length*  
KOREA: *Crotch Length*  
WAC: *Total Crotch Length*

Not Equivalent:

ARMY QM: *Total Crotch Length - a plane midway between the lowest margins of the ribs . . . and the superior margin . . . of the iliac crests*  
NATO: *Crotch Length-Omphalion - horizontal plane through omphalion*  
WAF RECRUITS: *Crotch Length - [between omphalion and greatest lateral indentation]*  
WOMEN: *Total Crotch Length - left foot on a stool . . . at average waist level . . . lower edge of the lowest rib*

Indeterminable:

None

## CROTCH LENGTH

### Reference: WAF RECRUITS

The subject stands with her legs slightly apart. Measure the distance with the tape from the anterior waist mark through the crotch and over the right buttock to the posterior waist mark. [Sketch indicates landmark midway between omphalion and greatest lateral indentation (natural waist) ]

N: 848  
X: 69.64 cm; 27.42 in  
SD: 4.99 cm; 1.97 in  
V%: 7.17

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

ARMY QM: *Total Crotch Length - a plane midway between the lowest margins of the ribs . . . and the superior margin . . . of the iliac crests*  
JAPAN: *Crotch Length - level of greatest lateral indentation*  
KOREA: *Crotch Length - level of greatest lateral indentation*  
NATO: *Crotch Length-Omphalion - horizontal plane through omphalion*  
USAF '50: *Crotch Length - level of greatest lateral indentation*  
WAC: *Total Crotch Length - at the minimal circumference*  
WOMEN: *Total Crotch Length - left foot on a stool . . . at average waist level . . . lower edge of the lowest rib*

#### Indeterminable:

None

## CROTCH LENGTH-OMPHALION

### Reference: NATO

Subject stands with his legs slightly apart. Using the tape, measure the surface distance through the crotch and over the middle of the right buttock from the center of the umbilicus to the omphalion waist level landmark †the horizontal plane through omphalion† on the right side of the back.

### **Crotch Length-Omphalion—NATO (Continued)**

<b>Turkey</b>	<b>Greece</b>	<b>Italy</b>
N: 915	1084	1358
X: 66.91 cm; 26.34 in	65.85 cm; 25.93 in	66.47 cm; 26.17 in
SD: 3.99 cm; 1.57 in	3.88 cm; 1.53 in	3.76 cm; 1.48 in
V%: 5.96	5.88	5.65

#### **Similar Dimensions:**

**Equivalent**

**None**

**Not Equivalent:**

**ARMY QM:** Total Crotch Length - a plane midway between the lowest margins of the ribs . . . and the superior margin . . . of the iliac crests

**JAPAN:** Crotch Length - level of greatest lateral indentation

**KOREA:** Crotch Length - level of greatest lateral indentation

**USAF '50:** Crotch Length - level of greatest lateral indentation

**WAC:** Total Crotch Length - at the minimal circumference

**WAF RECRUITS:** Crotch Length - [between omphalion and greatest lateral indentation]

**WOMEN:** Total Crotch Length - left foot on a stool . . . at average waist level . . . lower edge of the lowest rib

**Indeterminable:**

**None**

### **CROTCH THIGH CIRCUMFERENCE**

**Reference: ARMY QM**

Erect posture, legs spread slightly to allow passage of the tape between them. The circumference of the thigh taken in a plane at right angles to the long axis of the femur through the gluteal fold.

N: 24832

X: 54.45 cm; 21.44 in

SD: 4.32 cm; 1.70 in

V%: [7.9]

**Similar Dimensions:**

*Crotch Thigh Circumference—ARMY QM (Continued)*

Equivalent:

GENEVA: *Maximum Circumference of the Thigh*  
MONTAGU: *Maximum Circumference of the Right Thigh*  
WAC: *Thigh Circumference at Crotch*

Not Equivalent:

AAF: *Thigh Circumference* - halfway between crotch and knee  
ARMY '66: *Upper Thigh Circumference* - just below the gluteal furrow  
ARMY QM: *Middle Thigh Circumference* - midway between . . . crotch and tibiale  
BULGARIA: *Thigh Circumference* - at the . . . greatest bulging of the muscles  
FAA: *Thigh Circumference* - juncture of the upper one-third and distal two-thirds  
FRANCE '65: *Périmètre maximum de la cuisse* - [just below the gluteal furrow]  
JAPAN: *Thigh Circumference* - just below . . . the gluteal furrow  
KOREA: *Thigh Circumference* - just below . . . the gluteal furrow  
MARTIN: *Groesster Umfang des rechten Oberschenkels* - [at the greatest medial protrusion of the muscles . . . but not in the gluteal furrow]  
NATO: *Upper Thigh Circumference* - as high in the crotch as possible  
NAVY RECRUITS: *Upper Thigh Circumference* - just below the gluteal furrow  
THAI: *Crotch-Thigh Circumference* - just below . . . (gluteal furrow)  
USAF '50: *Thigh Circumference* - just below . . . the gluteal furrow  
USMC: *Upper Thigh Circumference* - just below the gluteal furrow  
USN: *Upper Thigh Circumference* - as high in the crotch as possible  
VIETNAM: *Crotch-Thigh Circumference* - just below . . . (gluteal furrow)  
WAC: *Mid-Thigh Circumference* - mid-way between crotch and knee  
WAF RECRUITS: *Thigh Circumference* - as high up as possible in the crotch, without including any buttock  
WASP: *Thigh Circumference* - halfway between crotch and knee  
WOMEN: *Midway Thigh Girth* - halfway between . . . the trochanter major and tibiale  
WOMEN: *Thigh Girth, Maximum* - largest part of the thigh

Indeterminable:

None

See Also:

*Lower Thigh Circumference*  
*Upper Thigh Circumference, Sitting*

## CROTCH-THIGH CIRCUMFERENCE

### Reference: THAI

Measured as circumference of the right upper thigh, with tape passing just below crease of buttock (gluteal furrow).

N: 2950  
 $\bar{X}$ : 49.5 cm; 19.5 in  
SD: 3.7 cm; 1.5 in  
V%: 7.5

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Upper Thigh Circumference*  
FRANCE '65: *Périmètre maximum de la cuisse*  
JAPAN: *Thigh Circumference*  
KOREA: *Thigh Circumference*  
NAVY RECRUITS: *Upper Thigh Circumference*  
USAF '50: *Thigh Circumference*  
USMC: *Upper Thigh Circumference*  
VIETNAM: *Crotch-Thigh Circumference*

#### Not Equivalent:

AAF: *Thigh Circumference* - halfway between crotch and knee  
ARMY QM: *Crotch Thigh Circumference* - through the gluteal fold  
ARMY QM: *Middle Thigh Circumference* - midway between . . . crotch and tibiale  
BULGARIA: *Thigh Circumference* - at the . . . greatest bulging of the muscles  
FAA: *Thigh Circumference* - juncture of the upper one-third and distal two-thirds  
GENEVA: *Maximum Circumference of the Thigh* - at the level of the gluteal fold  
MARTIN: *Groesster Umfang des rechten Oberschenkels* - [at the greatest medial protrusion of the muscles . . . but not in the gluteal furrow]  
MONTAGU: *Maximum Circumference of the Right Thigh* - in the gluteal fold  
NATO: *Upper Thigh Circumference* - as high in the crotch as possible  
USN: *Upper Thigh Circumference* - as high in the crotch as possible  
WAC: *Thigh Circumference at Crotch* - in the gluteal furrow  
WAC: *Mid-Thigh Circumference* - half-way between crotch and knee  
WAF RECRUITS: *Thigh Circumference* - as high up as possible in the crotch, without including any buttock  
WASP: *Thigh Circumference* - halfway between crotch and knee

***Crotch-Thigh Circumference—THAI (Continued)***

WOMEN: *Midway Thigh Girth* - halfway between . . . the trochanter major and tibiale

WOMEN: *Thigh Girth, Maximum* - largest part of the thigh

Indeterminable:

None

**See Also:**

*Lower Thigh Circumference*

*Upper Thigh Circumference, Sitting*

**CROTCH-THIGH CIRCUMFERENCE**

**Reference: VIETNAM**

Measured as circumference of the right upper thigh, with tape passing just below crease of buttock (gluteal furrow).

N: 2125

$\bar{X}$ : 47.7 cm; 18.8 in

SD: 3.6 cm; 1.4 in

V%: 7.5

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Upper Thigh Circumference*

FRANCE '65: *Périmètre maximum de la cuisse*

JAPAN: *Thigh Circumference*

KOREA: *Thigh Circumference*

NAVY RECRUITS: *Upper Thigh Circumference*

THAI: *Crotch-Thigh Circumference*

USAF '50: *Thigh Circumference*

USMC: *Upper Thigh Circumference*

**Not Equivalent:**

AAF: *Thigh Circumference* - halfway between crotch and knee

ARMY QM: *Crotch Thigh Circumference* - through the gluteal fold

ARMY QM: *Middle Thigh Circumference* - midway between . . . crotch and tibiale

***Crotch-Thigh Circumference—VIETNAM (Continued)***

**BULGARIA:** *Thigh Circumference* - at the . . . greatest bulging of the muscles

**FAA:** *Thigh Circumference* - juncture of the upper one-third and distal two-thirds

**GENEVA:** *Maximum Circumference of the Thigh* - at the level of the gluteal fold

**MARTIN:** *Groesster Umfang des rechten Oberschenkels* - [at the greatest medial protrusion of the muscles . . . but not in the gluteal furrow]

**MONTAGU:** *Maximum Circumference of the Right Thigh* - in the gluteal fold

**NATO:** *Upper Thigh Circumference* - as high in the crotch as possible

**USN:** *Upper Thigh Circumference* - as high in the crotch as possible

**WAC:** *Thigh Circumference at Crotch* - in the gluteal furrow

**WAF RECRUITS:** *Thigh Circumference* - as high up as possible in the crotch, without including any buttock

**WASP:** *Thigh Circumference* - halfway between crotch and knee

**WOMEN:** *Midway Thigh Girth* - halfway between . . . the trochanter major and tibiale

**WOMEN:** *Thigh Girth, Maximum* - largest part of the thigh

**Indeterminable:**

None

**See Also:**

*Lower Thigh Circumference*

*Upper Thigh Circumference, Sitting*

## DACTYLION HEIGHT

### Reference: NATO

The subject stands erect, his arms and hands extended, and the palms touching the thighs. Using the anthropometer, measure the vertical distance from the standing surface to the tip of the extended right middle finger.

Turkey	Greece	Italy
N: 915	1064	1358
X: 63.18 cm; 24.87 in	62.59 cm; 24.64 in	63.19 cm; 24.88 in
SD: 3.34 cm; 1.31 in	3.41 cm; 1.34 in	3.27 cm; 1.29 in
V% 5.28	5.44	5.17

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

GENEVA: *Tip of the Middle Finger [Height]* - the upper limbs are pendant

MARTIN: *Hoche der rechten Mittelfingerspitze ueber dem Boden* - [the hand must be stretched completely, . . . it no longer touches the thigh]

MONTAGU: *Right Dactylon [sic] Height* - the fingers are removed from contact with the thigh and are pointing perpendicularly downwards

#### Indeterminable:

None

## DELTOID ARC

### Reference: NATO

Subject stands erect, his arms hanging naturally at his sides. Using the tape, measure the surface distance from the right acromiale landmark †the highest point above the floor that can be palpated on the lateral edge of the acromial spine of the scapula† to the right deltoid landmark †below the deltoid muscle, just where the muscle disappears from view† below.

*Deltoid Arc—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 14.98 cm; 5.90 in	14.86 cm; 5.85 in	14.83 cm; 5.84 in
SD: 1.13 cm; 0.44 in	1.09 cm; 0.43 in	1.10 cm; 0.43 in
V% 7.55	7.30	7.42

**Similar Dimensions:**

None

**DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 2.

N: 211  
 $\bar{X}$ : 1.28 cm; 0.51 in  
SD: 0.09 cm; 0.04 in  
V% 6.95

**Similar Dimensions:**

**Equivalent:**

**HANDS-MALE: *Depth [of] Distal Interphalangeal Joint-Digit 2***

**Not Equivalent:**

None

**Indeterminable:**

None

**DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 2.

**Depth [of] Distal Interphalangeal Joint-Digit 2—HANDS-MALE (Continued)**

N: 148  
 $\bar{X}$ : 1.55 cm; 0.61 in  
SD: 0.13 cm; 0.05 in  
V% 8.53

**Similar Dimensions:**

**Equivalent:**

HANDS-FEMALE: *Depth [of] Distal Interphalangeal Joint-Digit 2*

**Not Equivalent:**

None

**Indeterminable:**

None

**DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 3**

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 3.

N: 211  
 $\bar{X}$ : 1.31 cm; 0.52 in  
SD: 0.09 cm; 0.04 in  
V% 7.11

**Similar Dimensions:**

**Equivalent:**

HANDS-MALE: *Depth [of] Distal Interphalangeal Joint-Digit 3*

**Not Equivalent:**

None

**Indeterminable:**

None

### DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 3

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 3.

N: 148  
X: 1.60 cm; 0.63 in  
SD: 0.13 cm; 0.05 in  
V% 8.28

#### **Similar Dimensions:**

**Equivalent:**

**HANDS-FEMALE:** *Depth [of] Distal Interphalangeal Joint-Digit 3*

**Not Equivalent:**

None

**Indeterminable:**

None

### DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 4

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 4.

N: 211  
X: 1.25 cm; 0.49 in  
SD: 0.09 cm; 0.03 in  
V% 6.95

#### **Similar Dimensions:**

**Equivalent:**

**HANDS-MALE:** *Depth [of] Distal Interphalangeal Joint-Digit 4*

**Not Equivalent:**

**Depth [of] Distal Interphalangeal Joint-Digit 4—HANDS-FEMALE (Continued)**

None

Indeterminable:

None

**DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 4**

**Reference: HANDS -- MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 4.

N: 148

$\bar{X}$ : 1.51 cm; 0.60 in

SD: 0.13 cm; 0.05 in

V% 8.74

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE: Depth [of] Distal Interphalangeal Joint-Digit 4**

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 5**

**Reference: HANDS -- FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 5.

N: 211

$\bar{X}$ : 1.13 cm; 0.45 in

SD: 0.09 cm; 0.03 in

V%: 7.51

***Depth [of] Distal Interphalangeal Joint-Digit 5—HANDS-FEMALE (Continued)***

**Similar Dimensions:**

Equivalent:

**HANDS-MALE:** *Depth [of] Distal Interphalangeal Joint-Digit 5*

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] DISTAL INTERPHALANGEAL JOINT-DIGIT 5**

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the distal interphalangeal joint of digit 5.

N: 148  
X: 1.37 cm; 0.54 in  
SD: 0.13 cm; 0.05 in  
V%: 9.13

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE:** *Depth [of] Distal Interphalangeal Joint-Digit 5*

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] INTERPHALANGEAL JOINT-DIGIT 1**

**Reference: HANDS — FEMALE**

***Depth [of] Interphalangeal Joint-Digit 1—HANDS-FEMALE (Continued)***

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the interphalangeal joint of digit 1.

N: 211  
X: 1.66 cm; 0.66 in  
SD: 0.12 cm; 0.04 in  
V%: 6.90

**Similar Dimensions:**

Equivalent:

**HANDS-MALE: *Depth [of] Interphalangeal Joint-Digit 1***

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] INTERPHALANGEAL JOINT-DIGIT 1**

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the interphalangeal joint of digit 1.

N: 148  
X: 2.02 cm; 0.79 in  
SD: 0.15 cm; 0.06 in  
V%: 7.46

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE: *Depth [of] Interphalangeal Joint-Digit 1***

Not Equivalent:

None

**Depth [of] Interphalangeal Joint-Digit 1—HANDS-MALE (Continued)**

Indeterminable:

None

**DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 2.

N: 211

$\bar{X}$ : 1.62 cm; 0.64 in

SD: 0.10 cm; 0.04 in

V%: 6.22

**Similar Dimensions:**

Equivalent:

BARTER: *Thickness of Proximal Knuckle of Digits 2 to 5*

HANDS-MALE: *Depth [of] Proximal Interphalangeal Joint-Digit 2*

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 2**

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 2.

N: 148

$\bar{X}$ : 1.94 cm; 0.77 in

SD: 0.12 cm; 0.05 in

V%: 6.36

***Depth [of] Proximal Interphalangeal Joint-Digit 2 HANDS-MALE (Continued)***

**Similar Dimensions:**

**Equivalent:**

**BARTER:** *Thickness of Proximal Knuckle of Digits 2 to 5*

**HANDS-FEMALE:** *Depth [of] Proximal Interphalangeal Joint-Digit 2*

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 3**

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 3.

**N:** 211

**X:** 1.67 cm; 0.66 in

**SD:** 0.11 cm; 0.04 in

**V%:** 6.50

**Similar Dimensions:**

**Equivalent:**

**BARTER:** *Thickness of Proximal Knuckle of Digits 2 to 5*

**HANDS-MALE:** *Depth [of] Proximal Interphalangeal Joint-Digit 3*

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

### DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 3

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 3.

N: 148  
 $\bar{X}$ : 2.01 cm; 0.79 in  
SD: 0.14 cm; 0.06 in  
V%: 7.08

**Similar Dimensions:**

Equivalent:

BARTER: *Thickness of Proximal Knuckle of Digits 2 to 5*  
HANDS-FEMALE: *Depth [of] Proximal Interphalangeal Joint-Digit 3*

Not Equivalent:

None

Indeterminable:

None

### DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 4

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 4.

N: 211  
 $\bar{X}$ : 1.57 cm; 0.62 in  
SD: 0.11 cm; 0.04 in  
V%: 6.84

**Similar Dimensions:**

Equivalent:

BARTER: *Thickness of Proximal Knuckle of Digits 2 to 5*  
HANDS-MALE: *Depth [of] Proximal Interphalangeal Joint-Digit 4*

**Depth [of] Proximal Interphalangeal Joint-Digit 4—HANDS-FEMALE (Continued)**

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 4**

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 4.

N: 148  
X: 1.89 cm; 0.74 in  
SD: 0.13 cm; 0.05 in  
V%: 7.04

**Similar Dimensions:**

Equivalent:

BARTER: *Thickness of Proximal Knuckle of Digits 2 to 5*  
HANDS-FEMALE: *Depth [of] Proximal Interphalangeal Joint-Digit 4*

Not Equivalent:

None

Indeterminable:

None

**DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 5**

**Reference: HANDS — FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 5.

**Depth [of] Proximal Interphalangeal Joint-Digit 5—HANDS-FEMALE (Continued)**

N: 211  
 $\bar{X}$ : 1.39 cm; 0.55 in  
SD: 0.09 cm; 0.04 in  
V%: 6.46

**Similar Dimensions:**

**Equivalent:**

BARTER: *Thickness of Proximal Knuckle of Digits 2 to 5*  
HANDS-MALE: *Depth [of] Proximal Interphalangeal Joint-Digit 5*

**Not Equivalent:**

None

**Indeterminable:**

None

**DEPTH [OF] PROXIMAL INTERPHALANGEAL JOINT-DIGIT 5**

**Reference: HANDS — MALE**

Subject's right hand is extended. With the sliding caliper, measure the . . . maximum depth of the proximal interphalangeal joint of digit 5.

N: 211  
 $\bar{X}$ : 1.67 cm; 0.66 in  
SD: 0.12 cm; 0.35 in  
V%: 7.45

**Similar Dimensions:**

**Equivalent:**

BARTER: *Thickness of Proximal Knuckle of Digits 2 to 5*  
HANDS-FEMALE: *Depth [of] Proximal Interphalangeal Joint-Digit 5*

**Not Equivalent:**

None

**Indeterminable:**

None

## DIAGONAL ANKLE GIRTH

### Reference: FOOT

Girth around posterior-inferior aspect of the heel and the dorsal junction of the foot and leg.

#### White

N: 5575  
 $\bar{X}$ : 34.41 cm; 13.55 in  
Est SD: [1.54 cm; 0.61 in]  
Est  $\sqrt{v}$ : [4.47]

#### Negro

1200  
34.99 cm; 13.78 in  
[1.60 cm; 0.64 in]  
[4.57]

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Heel-Ankle Circumference*  
MORANT: *Diagonal Ankle Girth*  
NAVY RECRUITS: *Heel-Ankle Circumference*  
THAI: *Heel-Ankle Diagonal*  
VIETNAM: *Heel-Ankle Circumference*  
USMC: *Heel-Ankle Circumference*

#### Not Equivalent:

None

#### Indeterminable:

None

### See Also:

*Instep Circumference*

## DIAGONAL ANKLE GIRTH

### Reference: MORANT

This is the girth, taken with a narrow linen tape, round the posterior-inferior aspect of the heel and along the line marked indicating the dorsal junction of the foot and leg. When positioning the tape the subject is not required to raise his heel.

*Diagonal Ankle Girth—MORANT (Continued)*

N: 200  
X: 33.39 cm; 13.15 in  
SD: 1.39 cm; 0.55 in  
V%: [4.05]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel-Ankle Circumference*  
FOOT: *Diagonal Ankle Girth*  
NAVY RECRUITS: *Heel-Ankle Circumference*  
THAI: *Heel-Ankle Diagonal*  
USMC: *Heel-Ankle Circumference*  
VIETNAM: *Heel-Ankle Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Instep Circumference*

**DIAGONAL FOOT BREADTH**

**Reference: MORANT**

This is the chord taken with small calipers between points marked on the medial surface of the ball and on the lateral surface in the region of the fifth metatarso-phalangeal joint. The former point is usually appreciably higher than the latter so the chord is not horizontal. †Subjects were without footwear and socks. . . . They stood "at ease" . . . with the body weight roughly supported equally by the two feet.†

N: 200  
X: 10.15 cm; 4.00 in  
SD: 0.48 cm; 0.19 in  
V%: [4.63]

*Diagonal Foot Breadth—MORANT (Continued)*

**Similar Dimensions:**

**Equivalent:**

FOOT: *Foot Breadth (Diagonal)*

**Not Equivalent:**

AAF: *Foot Breadth*—maximum breadth

ARMY '66: *Ball of Foot Breadth*—A foot measuring box is used

ARMY ARMORED: *Foot Breadth*—maximum breadth

ARMY AVIATORS: *Foot Breadth*—maximum width of the right foot

ARMY QM: *Foot Breadth*—Anthropometer held perpendicular to the antero-posterior axis of the foot

FOOT: *Foot Breadth (Horizontal)*—[anthropometer arms] parallel to the longitudinal axis

HRDLICKA: *Foot Breadth*—maximum breadth of the foot

KOREA: *Foot Breadth*—widest part of the foot

MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]

NATO: *Foot Breadth*—widest part of the foot

NAVY RECRUITS: *Ball of Foot Breadth*—A foot measuring box is used

THAI: *Foot Breadth*—maximum breadth

USAF '50: *Foot Breadth*—the widest part of the foot

USMC: *Ball of Foot Breadth*—A foot measuring box is used

USN: *Foot Breadth*—the widest part of the foot

VIETNAM: *Foot Breadth*—maximum breadth of right foot

WAF RECRUITS: *Foot Width*—widest part of the foot

WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

AUSTRALIA: *Foot Width*

FAA: *Foot Breadth*

FRANCE '65: *Largeur du pied*

MONTAGU: *Foot Breadth*

**See Also:**

*Breadth of Instep*

## DIAMETER FRONTAL MINIMUM

**Reference:** HPDIČKA

The shortest distance between the temporal crests above the zygomatic processes of the frontal squama.

No Data Available

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Minimum Frontal*  
FRANCE '65: *Largeur frontale minimum*  
KOREA: *Minimum Frontal Diameter*  
MARTIN: *Kleinste Stirnbreite*  
MONACO: *Largeur frontale minima*  
MONTAGU: *Minimum Frontal Breadth*  
NATO: *Minimum Frontal Diameter*  
USAF '50: *Minimum Frontal Diameter*  
WAC: *Minimum Frontal*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Maximum Frontal Diameter*

## DIAMETRE ANTERO-POSTERIEUR DE LA POITRINE [ANTERIOR-POSTERIOR CHEST DEPTH]

**Reference:** FRANCE '65

Subject debout en état respiratoire indifférent. Mesure prise au niveau du 4<sup>e</sup> cartilage costal.

[The subject stands, calm respiration. The measurement is taken at the level of the fourth costal cartilage.] [Position of arms not specified, but illustrated as pendant. Instrument unknown.]

**Diamètre antero-postérieur de la poitrine**  
**[Anterior-Posterior Chest Depth] —FRANCE '65 (Continued)**

<b>Military Fighter Pilots</b>	<b>Military Transport Pilots</b>	<b>Civilian Transport Pilots</b>
N: 220	450	150
$\bar{X}$ : 21.31 cm; 8.38 in	21.58 cm; 8.49 in	21.33 cm; 8.39 in
SD: 1.55 cm; 0.61 in	1.77 cm; 0.69 in	1.82 cm; 0.71 in
V%: 7.29	8.22	8.56

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

AAF: Chest Depth - at nipple level  
 ARMY '66: Chest Depth - at the level of the nipples  
 ARMY ARMORED: Chest Depth - at nipple level  
 ARMY ARMORED: Chest Thickness - Greatest thickness from front to back  
 ARMY AVIATORS: Chest Depth - at nipple level  
 ARMY QM: Chest Depth - sliding arm of the anthropometer . . . just above the nipples  
 FAA: Chest Depth - at the nipple line  
 GENEVA: Antero-Posterior Diameter of the Thorax (no. 1) [Xiphoid - Intermediate Stage] - at the level of base of ensiform [xiphoid] cartilage  
 GENEVA: Antero-Posterior Diameter of the Thorax (no. 1) [Xiphoid - Mean] - at the level of base of ensiform [xiphoid] cartilage  
 GENEVA: Antero-Posterior Diameter of the Thorax (no. 2) [Mesosternale - Intermediate Stage] - measurement . . . made in the intermediate stage† extremes of inspiration and of expiration  
 GENEVA: Antero-Posterior Diameter of the Thorax (no. 2) [Mesosternale - Mean] - mean of . . . extremes of inspiration and of expiration  
 HRDLICKA: Antero-Posterior Diameter of the Chest [Men] - at . . . the nipples  
 HRDLICKA: Antero-Posterior Diameter of the Chest [Women] - forearms are flexed loosely at about right angles . . . arms . . . forward . . . 65 degrees  
 INDIA: Chest [Depth, Sitting] - seat . . . adjusted . . . back against one wing of the board  
 KOREA: Chest Depth - at the level of the nipples  
 MONTAGU: Chest Depth or Antero-Posterior Diameter of the Thorax - At the level of the inferior angles of the scapulae  
 NATO: Chest Depth - at the level of the nipples  
 NAVY RECRUITS: Chest Depth - at the level of the nipples  
 THOUSAND AVIATORS: Chest Anterior-Posterior Diameter - at the level of

*Diamètre antero-postérieur de la poitrine*  
[Anterior-Posterior Chest Depth]—FRANCE '65 (Continued)

the nipple  
TUFTS: Chest Depth - at nipple level  
USAF '50: Chest Depth - at the level of the nipples  
USMC: Chest Depth - at the level of the nipples  
USN: Chest Depth - at the level of the nipples  
WAC: Chest Depth - left arm extended forward horizontally . . . high in the axilla

Indeterminable:

BULGARIA: Antero-Posterior Diameter of the Chest - Measured with pelvi-meter

**DIAMETRE BI-ACROMIAL [BIACROMIAL DIAMETER]**

Reference: FRANCE '65

Sujet au garde à vous. Distance entre les bords latéraux des acromions.

[The subject [sits] at attention. Distance between the lateral edges of the acromions.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 40.31 cm; 15.87 in	40.47 cm; 15.93 in	40.23 cm; 15.83 in
SD: 2.06 cm; 0.81 in	2.06 cm; 0.81 in	1.29 cm; 0.50 in
V%: 5.11	5.10	3.20

Similar Dimensions:

Equivalent:

AAF: Biacromial  
ARMY ARMORED: Biacromial  
COMAS: Bi-Acromial Breadth  
MARTIN: Breite zwischen den Akromien  
MONTAGU: Bi-Acromial Breadth  
THOUSAND AVIATORS: Biacromial Diameter  
WASP: Biacromial

Not Equivalent:

GENEVA: Bi-Acromial Diameter - between the 2 acromial points †superior

**Diamètre bi-acromial [Biacromial Diameter]—FRANCE '65 (Continued)**

and external border of the acromial process

JAPAN: Biacromial Diameter - (acromion to acromion) †highest point on the lateral edge of the shoulder bone

KOREA: Biacromial Diameter - (acromion to acromion) †highest point on the lateral edge of the shoulder bone

NATO: Biacromial Breadth - between the right and left acromion landmarks †the highest point on the lateral edge of the acromial spine

USAF '50: Biacromial Diameter - (acromion to acromion) †the highest point on the lateral edge of the shoulder bone

Indeterminable:

BULGARIA: Biacromial Breadth - [ acromion not defined ]

See Also:

Bideltoid Breadth

**DIAMETRE BICRETE [BICRISTALE DIAMETER]**

Reference: FRANCE '65

Sujet au garde à vous. Distance au niveau des crêtes iliaques entre les points cutanés les plus externes sans déprimer les parties molles.

[The subject stands at attention. Distance at the level of the iliac crests between the most lateral protrusion of the sides without pressing in the surface of the skin.]

Military Fighter Pilots	Military Transport Pilots	Civilian Transport Pilots
N: 220	450	150
$\bar{X}$ : 30.16 cm; 11.87 in	30.41 cm; 11.97 in	30.28 cm; 11.92 in
SD: 2.04 cm; 0.08 in	2.20 cm; 0.86 in	2.09 cm; 0.82 in
V%: 6.77	7.26	6.90

Similar Dimensions:

Equivalent:

None

Not Equivalent:

**Diamètre bicrete [Bicristals Diameter]—FRANCE '65 (Continued)**

ARMY '66: *Hip Breadth, Standing* - maximum breadth  
 FAA: *Hip Breadth* - maximum transverse diameter  
 KOREA: *Hip Breadth* - the widest portion of the hips  
 NATO: *Hip Breadth* - the widest portion of the hips  
 NAVY RECRUITS: *Hip Breadth, Standing* - maximum breadth  
 THAI: *Hip Breadth, Standing* - maximum breadth  
 USAF '50: *Hip Breadth* - the widest portion of the hips  
 USMC: *Hip Breadth, Standing* - maximum breadth  
 JSN: *Hip Breadth* - the widest portion of the hips  
 VIETNAM: *Hip Breadth, Standing* - maximum breadth  
 WAF RECRUITS: *Hip Breadth* - widest portion of the hips

Indeterminable:

None

**See Also:**

*Bi-iliac*  
*Bi-trochanteric Breadth, Bone*  
*Hip Breadth, Sitting*

**DIAMETRE BIDELOIDIEN [BIDELTOID DIAMETER]**

**Reference: FRANCE '65**

Sujet au garde à vous. Distance entre les points les plus externes des muscles deltoïdes.

[The subject [sits] at attention. Distance between the most exterior points of the deltoid muscles.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 46.60 cm; 18.34 in	46.48 cm; 18.29 in	46.34 cm; 18.24 in
SD: 2.04 cm; 0.80 in	2.66 cm; 0.81 in	2.15 cm; 0.84 in
V%: 4.38	4.43	4.65

**Similar Dimensions:**

Equivalent:

None

**Diamètre bideltôdien [Bideloid Diameter]—FRANCE '65 (Continued)**

**Not Equivalent:**

None

**Indeterminable:**

Reference dimension description does not specify arm position.

AAF: Bi-Deltoid  
ARMY '66: Shoulder Breadth (Bideloid Breadth)  
ARMY ARMORED: Bi-Deltoid  
ARMY AVIATORS: Shoulder Breadth  
ARMY QM: Bi-Deltoid  
FAA: Shoulder Breadth  
GENEVA: Bi-Humeral Diameter  
HOOTON: Shoulder Breadth  
INDIA: Shoulder [Width]  
KOREA: Shoulder Breadth (Bideloid Diameter)  
NATO: Bi-Deltoid Breadth (Shoulder Breadth)  
NAVY RECRUITS: Shoulder Breadth (Bideloid Breadth)  
THAI: Shoulder Breadth  
TUFTS: Bi-Deltoid  
TUFTS: Shoulder Breadth  
USAF '50: Shoulder Breadth (Bi-Deltoid Diameter)  
USMC: Shoulder Breadth (Bideloid Breadth)  
USN: Bi-Deltoid Diameter  
VIETNAM: Shoulder Breadth  
WAC: Bideloid  
WASP: Bi-Deltoid

**See Also:**

Biacromial Diameter  
Elbow to Elbow Breadth  
Maximum Body Breadth

**DIAMETRE BIGONIAQUE [BIGONIAL DIAMETER]**

**Reference: MONACO**

Compas d'épaisseur. Éviter avec soin la partie charnue du masséter. †Points anatomiques: gonions ou sommet des angles que forment les branches montantes avec le corps de la mandibule. Mesurer leur écartement en appliquant le compas sur la face externe.†

**Diamètre bigoniaque [Bigonial Diameter]—MONACO (Continued)**

[Spreading caliper. The fleshy parts of the masseters are to be avoided. †Landmarks: The gonions, or points of the angles formed by the ascending branches with the body of the lower jaw. The separation of the angles is measured by applying the caliper to their external surfaces.†]

No Data Available

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

None

Indeterminable:

Reference dimension does not specify pressure.

ARMY QM: *Bigonial*  
FRANCE '65: *Largeur bigoniale*  
HRDLICKA: *Bigonial Diameter*  
JAPAN: *Bigonial Diameter*  
KOREA: *Bigonial Diameter*  
MONTAGU: *Bigonial Breadth*  
NATO: *Bigonial Diameter*  
NORWAY: *Bigonial Breadth*  
USAF '50: *Bigonial Diameter*  
USN: *Bigonial Diameter*

**DIAMETRE BIMASTOIDIEN MAXIMUM  
[MAXIMUM BIMASTOIDAL DIAMETER]**

**Reference: MONACO**

Compas d'épaisseur . . . en se placant derrière le sujet.

†Point anatomique: face externe de l'apophyse mastoïde au niveau du centre du trou auditif. A ce niveau chercher avec le compas d'épaisseur la ligne transversale d'écartement maximum.†

[Spreading caliper. [the observer] standing behind the subject.

*Diamètre bimastoidien maximum*  
[*Maximum Bimastoidal Diameter*]*—MONACO (Continued)*

†Landmarks: The external surface of each mastoid process at the level of the center of the meatus auditorius. At this level search with the spreading caliper for the maximum diameter.†]

No Data Available

**Similar Dimensions:**

None

**See Also:**

*Head Breadth*  
*Maximum Frontal Diameter*

**DIAMETRE BI-TROCHANTER [BITROCHANTERIC DIAMETER]**

**Reference: FRANCE '65**

Sujet au garde à vous. Distance entre les plus saillants des extrémités des diaphyses fémorales.

[The subject stands at attention. Distance between the most lateral prominences of the femur.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 33.51 cm; 13.19 in	33.60 cm; 13.22 in	33.62 cm; 13.23 in
SD: 1.51 cm; 0.59 in	1.63 cm; 0.64 in	1.57 cm; 0.61 in
V%: 4.51	4.86	4.89

**Similar Dimensions:**

**Equivalent:**

BULGARIA: *Bitrochanteric Breadth*  
GENEVA: *Bi-Trochanteric Diameter*  
MONTAGU: *Bi-Trochanteric*  
NATO: *Bi-Trochanteric Breadth - Bone*

**Not Equivalent:**

**Diamètre bi-trochanter [Bitrochanteric Diameter]—FRANCE '65 (Continued)**

None

Indeterminable:

None

**See Also:**

*Bi-Iliac  
Hip Breadth*

**DIAMETRE BIZYGOMATIQUE [BIZYGOMATIC DIAMETER]**

**Reference: MONACO**

Compas d'épaisseur . . . Chercher avec soin le maximum qui est souvent plus en arrière qu'on ne le suppose.

†Point anatomique: face externe des apophyses zygomatiques.

A ce niveau chercher avec le compas la ligne transversale d'écartement maximum.†

[Spreading caliper . . . The maximum should be searched for with care, for it is often located more posteriorly than one would expect.

†Landmarks: the external surface of the zygomatic arches. The object is to find the greatest diameter with the caliper.†]

No Data Available

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*

ARMY AVIATORS: *Face Breadth*

ARMY QM: *Bizygomatic*

COMAS: *Bizygomatic Breadth*

FRANCE '65: *Largeur bizygomatique*

HRDLICKA: *Face Breadth*

JAPAN: *Bizygomatic Diameter*

KOREA: *Bizygomatic Diameter*

MARTIN: *Jochbogenbreite*

MONTAGU: *Bizygomatic Breadth*

NATO: *Bizygomatic Diameter*

**Diamètre bizygomatique [Bizygomatic Diameter]—MONACO (Continued)**

NAVY RECRUITS: Face Breadth (Bizygomatic Breadth)

NORWAY: Bizygomatic Diameter

THAI: Face Breadth

USAF '50: Bizygomatic Diameter

USMC: Face Breadth (Bizygomatic Breadth)

USN: Bizygomatic Diameter

VIETNAM: Face Breadth

WAC: Bizygomatic

Not Equivalent:

None

Indeterminable:

None

**DIAMETRE NASO-ALVEOLAIRE [NASO-ALVEOLAR DIAMETER]**

**Reference: MONACO**

Compas glissière.

†Points anatomiques: en haut: nasion; en bas: le point le plus inférieur du bord alvéolaire, entre les deux incisives médianes et supérieures†. Il est toujours facile de faire retrousser les lèvres au sujet pour qu'on puisse apercevoir le bord libre des gencives.

[Sliding caliper.

†Landmarks: superiorly-the nasion; inferiorly-the lowest point of the alveolar border between the 2 median upper incisors†. It is always easily possible to turn the lips up so that the free border of the gums can be seen.]

No Data Available

**Similar Dimensions:**

None

**See Also:**

*Diamètre naso-buccal*

## DIAMETRE NASO-BUCCAL [NASO-BUCCAL DIAMETER]

Reference: MONACO

Compas glissière.

Points anatomiques dans le plan médian: en haut: nasion; en bas: interligne des lèvres.

[Sliding caliper.

Landmarks: in the median plane, superiorly-the nasion; inferiorly-the line between the lips.]

No Data Available

Similar Dimensions:

See Also:

*Diamètre naso - alvéolaire*

## DIAMETRE NASO-MENTONNIER [NASO-MENTON DIAMETER]

Reference: MONACO

Compas glissière.

†Points anatomiques: en haut: nasion; en bas: bord inférieur de la mandibule, dans le plan médian† †en pressant un peu pour ne pas tenir compte des épaisseurs adipeuses†. Chercher le nasion en remontant avec l'ongle le dos du nez jusqu'au léger ressaut que fait le bord inférieur du frontal.

Sliding caliper.

†Landmarks: superiorly: the nasion; inferiorly- the inferior border of the lower jaw, in the median plane† †a slight pressure is to be used to discount the soft parts†. Look for the nasion by passing the nail along the ridge of the nose until it encounters a slight ridge which is formed by the inferior border of the frontal.

No Data Available

Similar Dimensions:

Equivalent:

ARMY QM: *Face Length*

**Diamètre naso-mentonnier [Naso-Menton Diameter]—MONACO (Continued)**

COMAS: Morphological Facial Height  
 FRANCE '65: Hauteur de la face  
 HRDLICKA: Face Height (Length), Morphological  
 MARTIN: Morphologische Gesichtshöhe  
 NORWAY: Height of Face  
 WAC: Face Length

**Not Equivalent:**

ARMY '66: Face Length (Menton-Nasal Root Length) - to the nasal root depression  
 MONTAGU: Morphological Facial Height - the lowest median point on the lower border of the mandible  
 NATO: Menton-Nasal Root Depression Length - nasal root depression  
 NAVY RECRUITS: Face Length (Menton-Nasal Root Length) - to the nasal root depression  
 USMC: Face Length (Menton-Nasal Root Length) - to the nasal root depression  
 THAI: Face Length - depression of nose between eyes  
 VIETNAM: Face Length - depression of nose between eyes

**Indeterminable:**

ARMY AVIATORS: Face Length - [landmark on chin not specified]  
 FRANCE '55: Distance racine du nez-Fossette mentonnaire - [landmarks not specified]

**DIAMETRE TRANSVERSE DE LA POITRINE  
 [TRANSVERSE DIAMETER OF THE CHEST]**

**Reference: FRANCE '65**

Sujet debout en état respiratoire indifférent. Largeur maxima du thorax au niveau du 4e cartilage costal.

[The subject stands, calm respiration. Greatest breadth of the thorax at the level of the fourth costal cartilage.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 32.99 cm; 12.98 in	33.05 cm; 13.01 in	33.15 cm; 13.05 in
SD: 2.55 cm; 1.00 in	2.62 cm; 1.03 in	2.67 cm; 1.05 in
V%: 7.73	7.95	8.08

*Diamètre transverse de la poitrine*  
[Transverse Diameter Of The Chest]—FRANCE '65 (Continued)

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: Chest Breadth - at nipple level

ARMY '66: Chest Breadth - measured at the level of the nipples

ARMY ARMORED: Chest Breadth - at nipple level

ARMY ARMORED: Chest Width - Arms fully extended above head . . . greatest width

ARMY QM: Chest Breadth - just above the nipples. [Anthropometer] . . . arms . . . project downward and backward. . . Firm pressure

FAA: Chest Breadth - at the nipple level

GENEVA: Transverse Diameter of Thorax (no. 1) [Xiphoid - Intermediate] - at the level of the base of the ensiform cartilage . . . in the intermediate stage as regards . . . extremes of inspiration and of expiration

GENEVA: Transverse Diameter of Thorax (no. 1) [Xiphoid - Mean - at the level of the base of the ensiform cartilage . . . mean of . . . extremes of inspiration and of expiration

GENEVA: Transverse Diameter of Thorax (no. 2) [Mesosternale - Intermediate] - at the level of the upper border of the 4th chondro-sternal articulation. in the intermediate stage as regards . . . the extremes of inspiration and of expiration

GENEVA: Transverse Diameter of Thorax (no. 2) [Mesosternale - Mean] - at the level of the upper border of the 4th chondro-sternal articulation. the mean of . . . extremes of inspiration and of expiration

HRDLICKA: Transverse Diameter of the Chest [Men] - at the line of the nipples . . . forearms . . . at right angles . . . arms . . . forward . . . 65 degrees outward from the body . . . fixed branch pressed . . . until it meets with the resistance of the ribs

HRDLICKA: Transverse Diameter of the Chest [Women] - forearms . . . at about right angles . . . arms . . . forward . . . 65 degrees outward from the body . . . fixed branch pressed . . . until it meets with the resistance of the ribs

KOREA: Chest Breadth - at the level of the nipples

MONTAGU: Chest Breadth or Transverse Diameter of the Thorax - between the most lateral points on the chest

NATO: Chest Breadth—Bone - instrument at the level of the subject's nipples . . . using strong pressure to compress the flesh. Angle the tips of the anthropometer downward slightly

NATO: Chest Breadth—Skin - at the level of the subject's nipples

*Diamètre transverse de la poitrine*  
[Transverse Diameter Of The Chest]—FRANCE '65 (Continued)

NAVY RECRUITS: *Chest Breadth* - measured at the level of the nipples  
THOUSAND AVIATORS: *Chest Breadth* - at the level of the nipple  
USAF '50: *Chest Breadth* - at the level of the nipples  
USMC: *Chest Breadth* - measured at the level of the nipples  
USN: *Chest Breadth* - instrument at the level of the subject's nipples . . . using strong pressure to compress the flesh. Angle the tips of the anthropometer downward slightly  
WAC: *Chest Breadth* - arms extended horizontally to the side . . . needles extend downward and backward . . . high in the axilla  
WAF RECRUITS: *Chest Breadth* - at the level of the nipples

Indeterminable:

[In the following reference, the stage of respiration is not specified.]

BULGARIA: *Transverse Diameter of the Chest*

See Also:

*Anterior Chest Width*  
*Posterior Chest Width*

### DIGIT 1 HEIGHT; PERPENDICULAR TO WRIST CREASE

Reference: HANDS — FEMALE

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 1.

N: 211  
 $\bar{X}$ : 8.64 cm; 3.40 in  
SD: 0.84 cm; 0.33 in  
V%: 9.69

Similar Dimensions:

Equivalent:

HANDS-MALE: *Digit 1 Height; Perpendicular to Wrist Crease*

Not Equivalent:

None

***Digit 1 Height; Perpendicular To Wrist Crease—HANDS-FEMALE (Continued)***

Indeterminable:

None

**DIGIT 1 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 1.

N: 148  
X: 10.03 cm; 3.95 in  
SD: 0.92 cm; 0.36 in  
V%: 9.17

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE: *Digit 1 Height; Perpendicular to Wrist Crease***

Not Equivalent:

None

Indeterminable:

None

**DIGIT 2 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 2.

N: 211  
X: 16.43 cm; 6.47 in  
SD: 0.92 cm; 0.36 in  
V%: 5.53

**Similar Dimensions:**

***Digit 2 Height; Perpendicular To Wrist Crease—HANDS-FEMALE (Continued)***

Equivalent:

**HANDS-MALE: *Digit 2 Height; Perpendicular to Wrist Crease***

Not Equivalent:

None

Indeterminable:

None

**DIGIT 2 HEIGHT; PERPENICULAR TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 2.

N: 148  
X: 18.32 cm; 7.21 in  
SD: 0.88 cm; 0.35 in  
V%: 4.80

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE: *Digit 2 Height; Perpendicular to Wrist Crease***

Not Equivalent:

None

Indeterminable:

None

**DIGIT 3 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 3.

***Digit 3 Height; Perpendicular To Wrist Crease—HANDS-FEMALE (Continued)***

N: 211  
 $\bar{X}$ : 17.63 cm; 6.94 in  
SD: 0.88 cm; 0.35 in  
V%: 4.97

**Similar Dimensions:**

**Equivalent:**

**HANDS-MALE: *Digit 3 Height; Perpendicular to Wrist Crease***

**Not Equivalent:**

None

**Indeterminable:**

None

**DIGIT 3 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 3.

N: 148  
 $\bar{X}$ : 19.52 cm; 7.69 in  
SD: 0.92 cm; 0.36 in  
V%: 4.72

**Similar Dimensions:**

**Equivalent:**

**HANDS-FEMALE: *Digit 3 Height; Perpendicular to Wrist Crease***

**Not Equivalent:**

None

**Indeterminable:**

None

## **DIGIT 4 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 4.

N: 211  
 $\bar{X}$ : 16.36 cm; 6.44 in  
SD: 0.89 cm; 0.35 in  
V%: 5.42

**Similar Dimensions:**

**Equivalent:**

**HANDS-MALE: *Digit 4 Height; Perpendicular to Wrist Crease***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

## **DIGIT 4 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 4.

N: 148  
 $\bar{X}$ : 18.20 cm; 7.16 in  
SD: 0.88 cm; 0.35 in  
V%: 4.83

**Similar Dimensions:**

**Equivalent:**

**HANDS-FEMALE: *Digit 4 Height; Perpendicular to Wrist Crease***

**Not Equivalent:**

**None**

***Digit 4 Height; Perpendicular To Wrist Crease—HANDS-MALE (Continued)***

Indeterminable:

None

**DIGIT 5 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 5.

N: 211  
 $\bar{X}$ : 13.00 cm; 5.12 in  
SD: 0.89 cm; 0.35 in  
V%: 6.87

**Similar Dimensions:**

Equivalent:

**HANDS-MALE: *Digit 5 Height; Perpendicular to Wrist Crease***

Not Equivalent:

None

Indeterminable:

None

**DIGIT 5 HEIGHT; PERPENDICULAR TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he perpendicular distance from the wrist crease baseline to the midpoint of the tip of digit 5.

N: 148  
 $\bar{X}$ : 14.60 cm; 5.75 in  
SD: 0.80 cm; 0.32 in  
V%: 5.50

**Similar Dimensions:**

***Digit 5 Height; Perpendicular To Wrist Crease—HANDS-MALE (Continued)***

Equivalent:

**HANDS-FEMALE:** *Digit 5 Height; Perpendicular to Wrist Crease*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 1 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 1 from the midpoint of the tip of digit 1 to the level of hand crotch 1.

N: 211  
 $\bar{X}$ : 5.37 cm; 2.12 in  
SD: 0.44 cm; 0.17 in  
V%: 8.23

**Similar Dimensions:**

Equivalent:

**HANDS-MALE:** *Digit 1 Length; Fingertip to Crotch Level*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 1 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — MALE**

[T]he distance along the axis of digit 1 from the midpoint of the tip of digit 1 to

***Digit 1 Length; Fingertip To Crotch Level—HANDS-MALE (Continued)***

the level of hand crotch 1.

N: 148  
 $\bar{X}$ : 5.87 cm; 2.31 in  
SD: 0.45 cm; 0.18 in  
V%: 7.63

**Similar Dimensions:**

Equivalent:

HANDS-FEMALE: *Digit 1 Length; Fingertip to Crotch Level*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 2 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 2 from the midpoint of the tip of digit 2 to the level of hand crotch 2.

N: 211  
 $\bar{X}$ : 6.90 cm; 2.72 in  
SD: 0.52 cm; 0.20 in  
V%: 7.52

**Similar Dimensions:**

Equivalent:

HANDS-MALE: *Digit 2 Length; Fingertip to Crotch Level*

Not Equivalent:

None

Indeterminable:

None

## DIGIT 2 LENGTH; FINGERTIP TO CROTCH LEVEL

Reference: HANDS — MALE

[T]he distance along the axis of digit 2 from the midpoint of the tip of digit 2 to the level of hand crotch 2.

N: 148  
X: 7.53 cm; 2.96 in  
SD: 0.46 cm; 0.18 in  
V%: 6.09

### Similar Dimensions:

Equivalent:

HANDS-FEMALE: *Digit 2 length; Fingertip to Crotch Level*

Not Equivalent:

None

Indeterminable:

None

## DIGIT 3 LENGTH; FINGERTIP TO CROTCH LEVEL

Reference: HANDS — FEMALE

[T]he distance along the axis of digit 3 from the midpoint of the tip of digit 3 to the average level of hand crotch 2-3.

N: 211  
X: 7.79 cm; 3.07 in  
SD: 0.51 cm; 0.20 in  
V%: 6.49

### Similar Dimensions:

Equivalent:

HANDS-MALE: *Digit 3 Length; Fingertip to Crotch Level*

Not Equivalent:

***Digit 3 Length; Fingertip To Crotch Level—HANDS-FEMALE (Continued)***

None

Indeterminable:

None

**DIGIT 3 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — MALE**

[T]he distance along the axis of digit 3 from the midpoint of the tip of digit 3 to the average level of hand crotch 2-3.

N: 148  
 $\bar{X}$ : 8.57 cm; 3.37 in  
SD: 0.51 cm; 0.20 in  
V%: 6.00

**Similar Dimensions:**

Equivalent:

HANDS-FEMALE: *Digit 3 Length; Fingertip to Crotch Level*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 4 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 4 from the midpoint of the tip of digit 4 to the average level of hand crotch 3-4.

N: 211  
 $\bar{X}$ : 7.31 cm; 2.88 in  
SD: 0.52 cm; 0.20 in  
V%: 7.05

**Digit 4 Length; Fingertip To Crotch Level—HANDS-FEMALE (Continued)**

**Similar Dimensions:**

**Equivalent:**

HANDS-MALE: *Digit 4 Length; Fingertip to Crotch Level*

**Not Equivalent:**

None

**Indeterminable:**

None

**DIGIT 4 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — MALE**

[T]he distance along the axis of digit 4 from the midpoint of the tip of digit 4 to the average level of hand crotch 3-4.

N: 148  
 $\bar{X}$ : 8.05 cm; 3.17 in  
SD: 0.47 cm; 0.19 in  
V%: 5.87

**Similar Dimensions:**

**Equivalent:**

HANDS-FEMALE: *Digit 4 Length; Fingertip to Crotch Level*

**Not Equivalent:**

None

**Indeterminable:**

None

**DIGIT 5 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — FEMALE**

***Digit 5 Length; Fingertip To Crotch Level—HANDS-FEMALE (Continued)***

[T]he distance along the axis of digit 5 from the midpoint of the tip of digit 5 to the level of hand crotch 4.

N: 211  
X: 5.46 cm; 2.15 in  
SD: 0.44 cm; 0.17 in  
V%: 8.03

**Similar Dimensions:**

Equivalent:

**HANDS-MALE: *Digit 5 Length; Fingertip to Crotch Level***

Not Equivalent:

None

Indeterminable:

None

**DIGIT 5 LENGTH; FINGERTIP TO CROTCH LEVEL**

**Reference: HANDS — MALE**

[T]he distance along the axis of digit 5 from the midpoint of the tip of digit 5 to the level of hand crotch 4.

N: 148  
X: 6.14 cm; 2.42 in  
SD: 0.47 cm; 0.18 in  
V%: 7.63

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE: *Digit 5 Length; Fingertip to Crotch Level***

Not Equivalent:

None

**Digit 5 Length; Fingertip To Crotch Level—HANDS-MALE (Continued)**

Indeterminable:

None

**DIGIT 1 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 1 from the midpoint of the tip of digit 1 to the wrist crease baseline.

N: 211  
X: 11.05 cm; 4.35 in  
SD: 1.00 cm; 0.40 in  
V%: 9.07

**Similar Dimensions:**

Equivalent:

HANDS-MALE: *Digit 1 Length; Total, Tip to Wrist Crease*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 1 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS -- MALE**

[T]he distance along the axis of digit 1 from the midpoint of the tip of digit 1 to the wrist crease baseline.

N: 148  
X: 12.70 cm; 5.00 in  
SD: 1.13 cm; 0.45 in  
V%: 8.91

**Similar Dimensions:**

***Digit 1 Length; Total, Tip To Wrist Crease—HANDS-MALE (Continued)***

**Equivalent:**

**HANDS-FEMALE:** *Digit 1 Length; Total, Tip to Wrist Crease*

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**DIGIT 2 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 2 from the midpoint of the tip of digit 2 to the wrist crease baseline.

N: 211  
X: 16.67 cm; 6.56 in  
SD: 0.89 cm; 0.35 in  
V%: 5.38

**Similar Dimensions:**

**Equivalent:**

**HANDS-MALE:** *Digit 2 Length; Total, Tip to Wrist Crease*

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**DIGIT 2 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — MALE**

***Digit 2 Length; Total, Tip To Wrist Crease—HANDS-MALE (Continued)***

[T]he distance along the axis of digit 2 from the midpoint of the tip of digit 2 to the wrist crease baseline.

N: 148  
 $\bar{X}$ : 19.52 cm; 7.29 in  
SD: 0.88 cm; 0.35 in  
V%: 4.75

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE:** *Digit 2 Length; Total, Tip to Wrist Crease*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 3 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 3 from the midpoint of the tip of digit 3 to the wrist crease.

N: 211  
 $\bar{X}$ : 17.65 cm; 6.95 in  
SD: 0.87 cm; 0.34 in  
V%: 4.93

**Similar Dimensions:**

Equivalent:

**HANDS-MALE:** *Digit 3 Length; Total, Tip to Wrist Crease*

Not Equivalent:

None

***Digit 3 Length; Total, Tip To Wrist Crease—HANDS-FEMALE (Continued)***

Indeterminable:

None

**DIGIT 3 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he distance along the axis of digit 3 from the midpoint of the tip of digit 3 to the wrist crease baseline.

N: 148  
X: 19.52 cm; 7.69 in  
SD: 0.92 cm; 0.36 in  
V%: 4.72

**Similar Dimensions:**

Equivalent:

**HANDS-FEMALE: *Digit 3 Length; Total, Tip to Wrist Crease***

Not Equivalent:

None

Indeterminable:

None

**DIGIT 4 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 4 from the midpoint of the tip of digit 4 to the wrist crease baseline.

N: 211  
X: 16.76 cm; 6.60 in  
SD: 8.94 cm; 3.52 in  
V%: 5.34

**Similar Dimensions:**

***Digit 4 Length; Total, Tip To Wrist Crease—HANDS-FEMALE (Continued)***

**Equivalent:**

**HANDS-MALE: *Digit 4 Length; Total, Tip to Wrist Crease***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**DIGIT 4 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he distance along the axis of the digit 4 from the midpoint of the tip of digit 4 to the wrist crease baseline.

N: 148  
 $\bar{X}$ : 18.72 cm; 7.37 in  
SD: 0.91 cm; 0.36 in  
V%: 4.84

**Similar Dimensions:**

**Equivalent:**

**HANDS-FEMALE: *Digit 4 Length; Total, Tip to Wrist Crease***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**DIGIT 5 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — FEMALE**

[T]he distance along the axis of digit 5 from the midpoint of the tip of digit 5 to

***Digit 5 Length; Total, Tip To Wrist Crease—HANDS-FEMALE (Continued)***

the wrist crease baseline.

N: 211  
X: 14.64 cm; 5.76 in  
SD: 0.92 cm; 0.36 in  
V%: 6.26

**Similar Dimensions:**

Equivalent:

HANDS-MALE: *Digit 5 Length; Total, Tip to Wrist Crease*

Not Equivalent:

None

Indeterminable:

None

**DIGIT 5 LENGTH; TOTAL, TIP TO WRIST CREASE**

**Reference: HANDS — MALE**

[T]he distance along the axis of digit 5 from the midpoint of the tip of digit 5 to the wrist crease baseline.

N: 148  
X: 16.61 cm; 6.54 in  
SD: 0.91 cm; 0.36 in  
V%: 5.47

**Similar Dimensions:**

Equivalent:

HANDS-FEMALE: *Digit 5 Length; Total, Tip to Wrist Crease*

Not Equivalent:

None

Indeterminable:

None

## DISTANCE BIPUPILLAIRE [BIPUPILLARY DISTANCE]

Reference: FRANCE '65

Mesurée le sujet regardant à l'horizon.

[Measurement taken with the subject staring at the horizon.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 6.20 cm; 2.44 in	6.25 cm; 2.46 in	6.22 cm; 2.45 in
SD: 0.34 cm; 0.13 in	0.34 cm; 0.14 in	0.40 cm; 0.16 in
V%: 5.44	5.49	6.06

Equivalent:

KOREA: *Interpupillary Distance*  
MARTIN: *Pupillendistanz*  
TUFTS: *Interpupillary Distance*  
USAF '50: *Interpupillary Distance*

Not Equivalent:

NATO: *Interpupillary Distance* - [Subject] to look at the point between the anthropometrist's eyebrows  
USN: *Interpupillary Distance* - [Subject] to look at the point between the anthropometrist's eyebrows

Indeterminable:

In the following sources, the subject's gaze is not specified.

ARMY '66: *Interpupillary Breadth*  
NAVY RECRUITS: *Interpupillary Breadth*  
THAI: *Interpupillary Distance*  
USMC: *Interpupillary Breadth*  
VIETNAM: *Interpupillary Distance*

See Also:

*Interocular Diameter*

## DISTANCE FESSE-GENOU [BUTTOCK-KNEE LENGTH]

Reference: FRANCE '65

Sujet assis à une hauteur convenable pour que la cuisse soit perpendiculaire à la

***Distance fesse-genou [Buttock-Knee Length]—FRANCE '65 (Continued)***

jambe. Distance entre le point le plus postérieur de la fesse et le point le plus antérieur de la rotule.

[The subject sits in such a position that the thigh is perpendicular to the lower leg. Distance from the back of the buttock to the anterior of the patella.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 58.91 cm; 23.19 in	59.07 cm; 23.25 in	58.99 cm; 23.22 in
SD: 2.67 cm; 1.05 in	2.62 cm; 1.03 in	2.44 cm; 0.96 in
V%: 4.54	4.43	4.15

**Similar Dimensions:**

**Equivalent:**

AAF: *Buttock-Knee*  
 ARMY '66: *Buttock-Knee Length*  
 ARMY ARMORED: *Buttock-Knee Length*  
 ARMY AVIATORS: *Buttock-Knee Length*  
 ARMY QM: *Buttock-Knee*  
 FAA: *Buttock-Knee*  
 KOREA: *Buttock-Knee Length*  
 NATO: *Buttock-Knee Length*  
 NAVY RECRUITS: *Buttock-Knee Length*  
 THAI: *Buttock-Knee Length*  
 TUFTS: *Buttock-Knee*  
 USAF '50: *Buttock-Knee Length*  
 USMC: *Buttock-Knee Length*  
 USN: *Buttock-Knee*  
 VIETNAM: *Buttock-Knee Length*  
 WAC: *Buttock-Knee*  
 WASP: *Buttock-Knee*

**Not Equivalent:**

BULGARIA: *Length of the Thigh - from iliospinale to tibiale*  
 INDIA: *Thigh [Length] - sits back [against board] as hard as possible*  
 RAF-RCAF: *Thigh Length - buttocks hard against the backboard*  
 US ADULTS: *Buttock-Knee Length - from the most posterior protrusion of the sacral area*

**Indeterminable:**

None

**DISTANCE RACINE DU NEZ-FOSSETTE MENTONNIERE  
[MENTON-NASAL ROOT DISTANCE]**

**Reference: FRANCE '55**

Cette distance est mesurée avec un compas analogue à celui de Demeny, les olives du compas n'exerçant aucune pression importante sur les tissus.

[This distance was measured with calipers (similar to "Demeny's"), the blunt tips of which do not exert pressure upon the skin]

N: 1000  
X: 10.91 cm; 4.29 in  
SD: 0.63 cm; 0.25 in  
V%: 6.2

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

None

**Indeterminable:**

Reference dimension description does not define landmarks.

ARMY '66: *Face Length (Menton-Nasal Root Length)*  
ARMY AVIATORS: *Face Length*  
ARMY QM: *Face Length*  
COMAS: *Morphological Facial Height*  
FRANCE '65: *Hauteur de la face*  
HRDLICKA: *Face Height (Length), Morphological*  
MARTIN: *Morphologische Gesichtshoehe*  
MONACO: *Diamètre naso-mentonnier*  
MONTAGU: *Morphological Facial Height*  
NATO: *Menton-Nasal Root Depression Length*  
NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)*  
NORWAY: *Height of Face*  
THAI: *Face Length*  
USMC: *Face Length (Menton-Nasal Root Length)*  
VIETNAM: *Face Length*  
WAC: *Face Length*

## DORSAL ARCH HEIGHT

Reference: FOOT

Height from the ground to the dorsal foot surface at the junction of the foot and leg.

*White*

N: 5575  
 $\bar{X}$ : 7.82 cm; 3.08 in  
Est SD: [0.50 cm; 0.20 in]  
Est V%: [6.39]

*Negro*

1200  
7.48 cm; 2.94 in  
[0.48 cm; 0.19 in]  
[6.42]

Similar Dimensions:

None

## EAR BREADTH

### Reference: HRDLIČKA

The greatest breadth at right angles to the length of the ear †length parallel to the long axis of the ear†.

No Data Available

### Similar Dimensions:

#### Equivalent:

KOREA: *Ear Breadth*  
MARTIN: *Physiognomische Breite des Ohres*  
MONTAGU: *Physiognomic Ear Breadth*  
MONACO: *Oreille: c) Largeur*  
NATO: *Ear Breadth*  
USAF '50: *Ear Breadth*  
USN: *Ear Breadth*

#### Not Equivalent:

FRANCE '65: *Largeur de l'oreille* - [from the most posterior point of the curvature to the most anterior point of the tragus]

#### Indeterminable:

None

### See Also:

*Morphologische Breite des Ohres*

## EAR BREADTH

### Reference: KOREA

With the fixed arm of the sliding caliper parallel to the long axis of the ear, measure the maximum breadth of the ear.

N: 264  
 $\bar{X}$ : 3.01 cm; 1.38 in  
SD: 0.24 cm; 0.09 in  
V%: 6.82

***Ear Breadth—KOREA (Continued)***

**Similar Dimensions:**

**Equivalent:**

HRDLICKA: *Ear Breadth*  
MARTIN: *Physiognomische Breite des Ohres*  
MONTAGU: *Physiognomic Ear Breadth*  
MONACO: *Oreille: c) Largeur*  
NATO: *Ear Breadth*  
USAF '50: *Ear Breadth*  
USN: *Ear Breadth*

**Not Equivalent:**

FRANCE '65: *Largeur de l'oreille* - [from the most posterior point of the curvature to the most anterior point of the tragus]

**Indeterminable:**

None

**See Also:**

*Morphologische Breite des Ohres*

**EAR BREADTH**

**Reference: NATO**

Subject sits. With fixed arm of the sliding caliper parallel to the long axis of the ear, measure the maximum breadth of the ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
X: 3.47 cm; 1.37 in	3.40 cm; 1.34 in	3.60 cm; 1.42 in
SD: 0.31 cm; 0.12 in	0.32 cm; 0.13 in	0.32 cm; 0.03 in
V%: 8.90	9.37	9.00

**Similar Dimensions:**

**Equivalent:**

HRDLICKA: *Ear Breadth*

**Ear Breadth—NATO (Continued)**

KOREA: *Ear Breadth*  
MARTIN: *Physiognomische Breite des Ohres*  
MONTAGU: *Physiognomic Ear Breadth*  
MONACO: *Oreille: c) Largeur*  
USAF '50: *Ear Breadth*  
USN: *Ear Breadth*

**Not Equivalent:**

FRANCE '65: *Largeur de l'oreille* - [from the most posterior point of the curvature to the most anterior point of the tragus]

**Indeterminable:**

None

**See Also:**

*Morphologische Breite des Ohres*

**EAR BREADTH**

**Reference: USAF '50**

With the fixed arm of the sliding caliper parallel to the long axis of the ear, measure the maximum breadth of the ear.

N: 4060  
X: 3.66 cm; 1.44 in  
SD: 0.27 cm; 0.11 in  
V%: 7.41

**Similar Dimensions:**

**Equivalent:**

HRDLICKA: *Ear Breadth*  
KOREA: *Ear Breadth*  
MARTIN: *Physiognomische Breite des Ohres*  
MONTAGU: *Physiognomic Ear Breadth*  
MONACO: *Oreille: c) Largeur*  
NATO: *Ear Breadth*  
USN: *Ear Breadth*

**Not Equivalent:**

*Ear Breadth—USAF '50 (Continued)*

FRANCE '65: *Largeur de l'oreille* - [from the most posterior point of the curvature to the most anterior point of the tragus]

Indeterminable:

None

See Also:

*Morphologische Breite des Ohres*

**EAR BREADTH**

Reference: USN

Subject sits. With the fixed arm of the sliding caliper parallel to the long axis of the ear, measure the maximum breadth of the ear.

N: 1549

$\bar{X}$ : 3.57 cm; 1.41 in

SD: 0.33 cm; 0.13 in

V%: 9.31

Similar Dimensions:

Equivalent:

HRDLICKA: *Ear Breadth*

KOREA: *Ear Breadth*

MARTIN: *Physiognomische Breite des Ohres*

MONTAGU: *Physiognomic Ear Breadth*

MONACO: *Oreille: c) Largeur*

NATO: *Ear Breadth*

USAF '50: *Ear Breadth*

Not Equivalent:

FRANCE '65: *Largeur de l'oreille* - [from the most posterior point of the curvature to the most anterior point of the tragus]

Indeterminable:

None

**Ear Breadth.—USN (Continued)**

**See Also:**

*Morphologische Breite des Ohres*

**EAR LENGTH**

**Reference: KOREA**

Using the sliding caliper, measure the maximum length of the subject's right ear along its long axis.

N: 264  
X: 6.46 cm; 2.54 in  
SD: 0.39 cm; 0.16 in  
V%: 6.15

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur de l'oreille*  
HRDLICKA: *Ear Length (Height) Maximum*  
MARTIN: *Physiognomische Laenge des Ohres*  
MONACO: *Oreille: a) Longueur maxima*  
NATO: *Ear Length*  
TUFTS: *Ear Length*  
USAF '50: *Ear Length*  
USN: *Ear Length*

**Not Equivalent:**

MARTIN: *Morphologische Breite des Ohres* - [superior point of insertion of the ear pinna . . . to the inferior point of insertion]  
MARTIN: *Morphologische Laenge des Ohres* - [point located . . . in a depression of the anterior incisura auris from the tip of Darwin's tubercle]  
MONACO: *Oreille: b) Longueur de l'oreille cartilagineuse* - [highest point on the border of the helix . . . inferior border in the cartilaginous concha]  
MONTAGU: *Physiognomic Ear Breadth [Length]* - between †highest point . . . of the helix† . . . and †lowest point . . . of the ear lobule when the head is held in the Frankfort Plane

**Indeterminable:**

None

*Ear Length—KOREA (Continued)*

**See Also:**

*Ear Length Above Trignon*

**EAR LENGTH**

**Reference: NATO**

Subject sits. Using the sliding caliper, measure the maximum length of the subject's right ear along its long axis.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 6.36 cm; 2.50 in	6.42 cm; 2.53 in	6.49 cm; 2.56 in
SD: 0.39 cm; 0.15 in	0.37 cm; 0.15 in	0.38 cm; 0.15 in
V%: 6.17	5.72	5.81

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur de l'oreille*  
HRDLICKA: *Ear Length (Height) Maximum*  
KOREA: *Ear Length*  
MARTIN: *Physiognomische Laenge des Ohres*  
MONACO: *Oreille: a) Longueur maxima*  
TUFTS: *Ear Length*  
USAF '50: *Ear Length*  
USN: *Ear Length*

**Not Equivalent:**

MARTIN: *Morphologische Breite des Ohres* - [superior point of insertion of the ear pinna . . . to the inferior point of insertion]  
MARTIN: *Morphologische Laenge des Ohres* - [point located . . . in a depression of the anterior incisura auris from the tip of Darwin's tubercle]  
MONACO: *Oreille: b) Longueur de l'oreille cartilagineuse* - [highest point on the border of the helix . . . inferior border in the cartilaginous concha]  
MONTAGU: *Physiognomic Ear Breadth [Length]* - between †highest point . . . of the helix† . . . and †lowest point . . . of the ear lobule when the head is held in the Frankfort Plane

**Indeterminable:**

**Ear Length—NATO (Continued)**

None

**See Also:**

*Ear Length Above Trignon*

**EAR LENGTH**

**Reference: TUFTS**

Maximum distance along axis of ear, wherever found.

No Data Available

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur de l'oreille*

HRDLICKA: *Ear Length: (Height) Maximum*

KOREA: *Ear Length*

MARTIN: *Physiognomische Laenge des Ohres*

MONACO: *Oreille: a) Longueur maxima*

NATO: *Ear Length*

USAF '50: *Ear Length*

USN: *Ear Length*

**Not Equivalent:**

MARTIN: *Morphologische Breite des Ohres* - [superior point of insertion of the ear pinna . . . to the inferior point of insertion]

MARTIN: *Morphologische Laenge des Ohres* - [point located . . . in a depression of the anterior incisura auris from the tip of Darwin's tubercle]

MONACO: *Oreille: b) Longueur de l'oreille cartilagineuse* - [highest point on the border of the helix . . . inferior border in the cartilaginous concha]

MONTAGU: *Physiognomic Ear Breadth [Length]* - between †highest point . . . of the helix† . . . and †lowest point . . . of the ear lobule when the head is held in the Frankfort Plane

**Indeterminable:**

None

**See Also:**

*Ear Length—TUFTS (Continued)*

*Ear Length Above Tragon*

**EAR LENGTH**

**Reference:** USAF '50

Using the sliding caliper, measure the maximum length of the subject's right ear along its long axis.

N: 4062  
X: 6.27 cm, 2.47 in  
SD: 0.41 cm, 0.16 in  
V%: 6.53

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur de l'oreille*  
HRDLICKA: *Ear Length (Height) Maximum*  
KOREA: *Ear Length*  
MARTIN: *Physiognomische Laenge des Ohres*  
MONACO: *Oreille: a) Longueur maxima*  
NATO: *Ear Length*  
TUFTS: *Ear Length*  
USN: *Ear Length*

**Not Equivalent:**

MARTIN: *Morphologische Breite des Ohres* - [superior point of insertion of the ear pinna . . . to the inferior point of insertion]  
MARTIN: *Morphologische Laenge des Ohres* - [point located . . . in a depression of the anterior incisura auris from the tip of Darwin's tubercle]  
MONACO: *Oreille: b) Longueur de l'oreille cartilagineuse* - [highest point on the border of the helix . . . inferior border in the cartilaginous concha]  
MONTAGU: *Physiognomic Ear Breadth [Length]* - between †highest point . . . of the helix† . . . and †lowest point . . . of the ear lobule when the head is held in the Frankfort Plane

**Indeterminable:**

None

**See Also:**

**Ear Length—USAF '50 (Continued)**

**Ear Length Above Trignon**

**EAR LENGTH**

**Reference: USN**

Subject sits. Using the sliding caliper, measure the maximum length of the subject's right ear along its long axis.

N: 1549  
 $\bar{X}$ : 6.53 cm; 2.57 in  
SD: 0.40 cm; 0.16 in  
V%: 6.19

**Similar Dimensions:**

**Equivalent:**

FRANCE '65: *Longueur de l'oreille*  
HRDLICKA: *Ear Length (Height) Maximum*  
KOREA: *Ear Length*  
MARTIN: *Physiognomische Laenge des Ohres*  
MONACO: *Oreille: a) Longueur mazima*  
NATO: *Ear Length*  
TUFTS: *Ear Length*  
USAF '50: *Ear Length*

**Not Equivalent:**

MARTIN: *Morphologische Breite des Ohres* - [superior point of insertion of the ear pinna . . . to the inferior point of insertion]  
MARTIN: *Morphologische Laenge des Ohres* - [point located . . . in a depression of the anterior incisura auris from the tip of Darwin's tubercle]  
MONACO: *Oreille: b) Longueur de l'oreille cartilagineuse* - [highest point on the border of the helix . . . inferior border in the cartilaginous concha]  
MONTAGU: *Physiognomic Ear Breadth [Length]* - between †highest point . . . of the helix† . . . and †lowest point . . . of the ear lobule when the head is held in the Frankfort Plane

**Indeterminable:**

None

**See Also:**

***Ear Length—USN (Continued)***

***Ear Length Above Tragon***

**EAR LENGTH ABOVE TRAGON**

**Reference: KOREA**

With the bar of the sliding caliper held parallel to the long axis of the right ear, and one caliper arm passing over tragon *the point located at the notch just above the tragus of the ear*, measure the distance to the top of the ear.

N: 284  
X: 3.23 cm; 1.19 in  
SD: 0.26 cm; 0.10 in  
V%: 8.79

**Similar Dimensions:**

**Equivalent:**

NATO: *Ear Length Above Tragon*  
USAF '50: *Ear Length Above Tragon*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Ear Length*

**EAR LENGTH ABOVE TRAGON**

**Reference: NATO**

Subject sits. With the bar of the sliding caliper held parallel to the long axis of the right ear, measure the vertical distance from tragon *the point located at the notch just above the tragus of the ear* to the top of the ear.

***Ear Length Above Tragion—NATO (Continued)***

<b><i>Turkey</i></b>	<b><i>Greece</i></b>	<b><i>Italy</i></b>
N: 595	1084	1358
$\bar{X}$ : 2.85 cm; 1.12 in	2.91 cm; 1.15 in	3.05 cm; 1.20 in
SD: 0.25 cm; 0.10 in	0.23 cm; 0.09 in	0.24 cm; 0.09 in
V%: 8.78	7.90	7.94

**Similar Dimensions:**

**Equivalent:**

KOREA: *Ear Length Above Tragion*  
USAF '50: *Ear Length Above Tragion*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Ear Length*

**EAR LENGTH ABOVE TRAGION**

**Reference: USAF '50**

With the bar of the sliding caliper held parallel to the long axis of the right ear, and one caliper arm passing over tragion ~~the~~ the point located at the notch just above the tragus of the ear, measure the distance to the top of the ear.

N: 4061  
 $\bar{X}$ : 2.97 cm; 1.17 in  
SD: 0.28 cm; 0.11 in  
V%: 9.36

**Similar Dimensions:**

**Equivalent:**

KOREA: *Ear Length Above Tragion*

***Ear Length Above Tragon—USAF '50 (Continued)***

**NATO: Ear Length Above Tragon**

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**See Also:**

***Ear Length***

**EAR LENGTH (HEIGHT) MAXIMUM**

**Reference: HRDLICKA**

**The greatest length parallel to the long axis of the ear.**

**No Data Available**

**Equivalent:**

**FRANCE '65: *Longueur de l'oreille***

**KOREA: *Ear Length***

**MARTIN: *Physiognomische Laenge des Ohres***

**MONACO: *Oreille: a) Longueur maxima***

**NATO: *Ear Length***

**TUFTS: *Ear Length***

**USAF '50: *Ear Length***

**USN: *Ear Length***

**Not Equivalent:**

**MARTIN: *Morphologische Breite des Ohres* - [superior point of insertion of the ear pinna . . . to the inferior point of insertion]**

**MARTIN: *Morphologische Laenge des Ohres* - [point located . . . in a depression of the anterior inc.sura auris from the tip of Darwin's tubercle]**

**MONACO: *Oreille: b) Longueur de l'oreille cartilagineuse* - [highest point on the border of the helix . . . inferior border in the cartilaginous concha]**

**MONTAGU: *Physiognomic Ear Breadth [Length]* - between †highest point . . . of the helix† . . . and †lowest point . . . of the ear lobule when the head is held in the Frankfort Plane**

***Ear Length (Height) Maximum—HRDLICKA (Continued)***

**Indeterminable:**

None

**See Also:**

*Ear Length Above Tragion*

**EAR-NECK ARC**

**Reference: FAA**

The length of the arc from the right to left tragion as measured with the tape passing under the lower jaw and positioned along the juncture of the jaw and the neck.

N: 477  
X: 31.76 cm; 12.51 in  
SD: 1.28 cm; 0.50 in  
V%: 4.03

**Similar Dimensions:**

**Equivalent:**

KOREA: *Bitragion-Submandibular Arc*  
NATO: *Bitragion-Submandibular Arc*  
USAF '50: *Bitragion-Submandibular Arc*  
USN: *Bitragion-Submandibular Arc*

**Not Equivalent:**

None

**Indeterminable:**

None

**EAR PROTRUSION**

**Reference: KOREA**

With the fixed point of the sliding caliper resting on the right mastoid process (the bony eminence directly behind the ear), measure the distance to the most

***Ear Protrusion—KOREA (Continued)***

lateral protusion of the ear.

N: 264  
 $\bar{X}$ : 2.41 cm; 0.95 in  
SD: 0.29 cm; 0.12 in  
V%: 12.27

**Similar Dimensions:**

Equivalent:

NATO: *Ear Protrusion*  
USAF '50: *Ear Protrusion*  
USN: *Ear Protrusion*

Not Equivalent:

None

Indeterminable:

None

**EAR PROTRUSION**

**Reference: NATO**

Subject sits. With the fixed point of the sliding caliper resting on the right mastoid process (the bony eminence directly behind the ear), measure the horizontal distance to the most lateral protrusion of the ear.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 595	1084	1358
$\bar{X}$ : 2.50 cm; 0.98 in	2.44 cm; 0.96 in	2.30 cm; 0.91 in
SD: 0.38 cm; 0.15 in	0.37 cm; 0.15 in	0.36 cm; 0.14 in
V%: 15.26	15.23	15.64

**Similar Dimensions:**

Equivalent:

KOREA: *Ear Protrusion*  
USAF '50: *Ear Protrusion*

***Ear Protrusion—NATO (Continued)***

**USN: *Ear Protrusion***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**EAR PROTRUSION**

**Reference: USAF '50**

With the fixed point of the sliding caliper resting on the right mastoid process (the bony eminence directly behind the ear), measure the distance to the most lateral protrusion of the ear.

**N: 4063**

**$\bar{X}$ : 2.15 cm; 0.84 in**

**SD: 0.37 cm; 0.14 in**

**V%: 17.06**

**Similar Dimensions:**

**Equivalent:**

**KOREA: *Ear Protrusion***

**NATO: *Ear Protrusion***

**USN: *Ear Protrusion***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**EAR PROTRUSION**

**Reference: USN**

Subject sits. With the fixed point of the sliding caliper resting on the right mastoid

***Ear Protrusion—USN (Continued)***

process (the bony eminence directly behind the ear), measure the horizontal distance to the most lateral protrusion of the ear.

N: 1549  
X: 2.19 cm; 0.86 in  
SD: 0.35 cm; 0.14 in  
V%: 15.81

**Similar Dimensions:**

Equivalent:

KOREA: *Ear Protrusion*  
NATO: *Ear Protrusion*  
USAF '50: *Ear Protrusion*

Not Equivalent:

None

Indeterminable:

None

**EAR TO EAR BREADTH**

**Reference: NATO**

Subject sits. Holding the spreading caliper near the tips, measure the maximum horizontal distance between the most lateral extensions of the right and left ears.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 595	1084	1358
X: 18.71 cm; 7.37 in	18.74 cm; 7.38 in	18.76 cm; 7.39 in
SD: 0.79 cm; 0.31 in	0.78 cm; 0.31 in	0.76 cm; 0.30 in
V%: 4.14	4.17	4.05

**Similar Dimensions:**

None

## ELBOW [HEIGHT]

### Reference: GENEVA

†Subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal†[A]natomical landmark: the radio-humeral articulation. †the height of the anatomical landmark above the ground is to be determined†.

No Data Available

### Similar Dimensions:

#### Equivalent:

FAA: *Elbow Height*

JAPAN: *Elbow Height*

KOREA: *Elbow Height*

MARTIN: *Hoehe der rechten Ellenbogengelenkfuge ueber dem Boden*

MONTAGU: *Right Radiale Height*

NATO: *Radiale Height (Elbow Height)*

USAF '50: *Elbow Height (Radiale Height)*

#### Not Equivalent:

HOOTON: *Elbow Height - [height . . . above the seat]*

#### Indeterminable:

None

## ELBOW BREADTH

### Reference: ARMY QM

†Subject sits on a table with adjustable foot rest. Subject sits erect with thighs just touching the table and knees at right angles. The foot rest is adjusted so that his feet just rest upon it† with upper arms at the side and forearms at right angles to them. With anthropometer horizontal in rear of subject, measure the diameter across the most lateral points on the lateral epicondyles of the humeri. Medial condyles are in contact with trunk. Contact.

N: 24590

$\bar{X}$ : 44.54 cm; 17.54 in

SD: 3.90 cm; 1.54 in

V%: [8.76]

*Elbow Breadth—ARMY QM (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-epicondylar, Elbows*  
ARMY ARMORED: *Bi-epicondylar, Elbows*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
NATO: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*  
WASP: *Bi-epicondylar, Elbows*

**Not Equivalent:**

None

**Indeterminable:**

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*  
WAC: *Elbow Breadth*

**See Also:**

*Maximum Body Breadth*  
*Maximum Forearm-Forearm Breadth*

**ELBOW BREADTH**

**Reference: WAC**

†Subject sat erect with eyes on an imaginary horizon, with both upper arms parallel to the body and both forearms extending forward at right angles to the upper arms† †Anthropometer held parallel to the floor to the rear of the subject. The needles point downward at a 45-degree angle† Measurement taken as the maximum breadth between the most lateral points on the lateral epicondyles of the humeri.

No Data Available

**Similar Dimensions:**

**Equivalent:**

### *Elbow Breadth—WAC (Continued)*

None

Not Equivalent:

None

Indeterminable:

Reference dimension description does not specify position of elbows relative to the trunk.

AAF: *Bi-epicondylar, Elbows*

ARMY ARMORED: *Bi-epicondylar, Elbows*

ARMY QM: *Elbow Breadth*

FAA: *Elbow-Elbow Breadth*

INDIA: *Elbows [Width]*

KOREA: *Elbow-to-Elbow Breadth*

NATO: *Elbow-to-Elbow Breadth*

USAF '50: *Elbow-to-Elbow Breadth*

US ADULTS: *Elbow-to-Elbow Breadth*

WASP: *Bi-epicondylar, Elbows*

**See Also:**

*Maximum Body Breadth*

*Maximum Forearm-Forearm Breadth*

### **ELBOW BREADTH, BONE**

**Reference: NATO**

Subject stands, with his upper arm hanging at his side and his elbow bent. Using the sliding caliper, with maximum pressure to compress the flesh, measure the distance between the medial and lateral epicondyles of the right humerus.

#### *Turkey*

N: 915

$\bar{X}$ : 6.96 cm; 2.74 in

SD: 0.33 cm; 0.13 in

V%: 4.77

#### *Greece*

1084

6.93 cm; 2.73 in

0.33 cm; 0.13 in

4.78

#### *Italy*

1358

6.99 cm; 2.75 in

0.35 cm; 0.14 in

5.01

**Similar Dimensions:**

None

## ELBOW CIRCUMFERENCE, EXTENDED

### Reference: NATO

Subject stands, his right arm extended with the hand about a foot from the body. Holding the tape perpendicular to the long axis of the arm with the tape passing over the tip of the elbow, measure the circumference of the elbow.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 25.32 cm; 9.97 in	25.86 cm; 10.18 in	26.49 cm; 10.43 in
SD: 1.43 cm; 0.56 in	1.31 cm; 0.52 in	1.44 cm; 0.57 in
V%: 5.63	5.05	5.42

### Similar Dimensions:

None

### See Also:

*Elbow Circumference, Flexed*  
*Upper Forearm Circumference*

## ELBOW CIRCUMFERENCE (FLEXED)

### Reference: JAPAN

Subject bends his right arm at about a right angle and makes a fist. With the tape passing over the tip and through the crotch of the elbow, measure the circumference of the elbow.

N: 208  
 $\bar{X}$ : 28.43 cm; 11.93 in  
SD: 1.55 cm; 0.61 in  
V%: 5.50

### Similar Dimensions:

Equivalent:

KOREA: *Elbow Circumference (Flexed)*  
NATO: *Elbow Circumference, Flexed*  
USAF '50: *Elbow Circumference (Flexed)*  
WAF RECRUITS: *Elbow Circumference (Flexed)*

*Elbow Circumference (Flexed)—JAPAN (Continued)*

WOMEN: *Elbow Girth*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Elbow Circumference, Extended*

**ELBOW CIRCUMFERENCE (FLEXED)**

Reference: KOREA

Subject bends his right arm at about a right angle and makes a fist. With the tape passing over the tip and through the crotch of the elbow, measure the circumference of the elbow.

N: 264

$\bar{X}$ : 33.33 cm; 13.12 in

SD: 2.59 cm; 1.02 in

V%: 7.77

Similar Dimensions:

Equivalent:

JAPAN: *Elbow Circumference (Flexed)*

NATO: *Elbow Circumference, Flexed*

USAF '50: *Elbow Circumference (Flexed)*

WAF RECRUITS: *Elbow Circumference (Flexed)*

WOMEN: *Elbow Girth*

Not Equivalent:

None

Indeterminable:

None

***Elbow Circumference (Flexed)—KOREA (Continued)***

**See Also:**

*Elbow Circumference, Extended*

**ELBOW CIRCUMFERENCE, FLEXED**

**Reference: NATO**

Subject bends his right arm at about a right angle and makes a fist. With the tape passing over the tip and through the crotch of the elbow, measure the circumference of the elbow.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
X: 29.99 cm; 11.81 in	30.19 cm; 11.89 in	31.41 cm; 12.37 in
SD: 1.96 cm; 0.77 in	1.91 cm; 0.75 in	1.82 cm; 0.72 in
V%: 6.54	6.31	5.80

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Elbow Circumference (Flexed)*  
KOREA: *Elbow Circumference (Flexed)*  
USAF '50: *Elbow Circumference (Flexed)*  
WAF RECRUITS: *Elbow Circumference (Flexed)*  
WOMEN: *Elbow Girth*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Elbow Circumference, Extended*

**ELBOW CIRCUMFERENCE (FLEXED)**

**Reference: USAF '50**

***Elbow Circumference (Flexed)—USAF '50 (Continued)***

Subject bends his right arm at about a right angle and makes a fist. With the tape passing over the tip and through the crotch of the elbow, measure the circumference of the elbow.

N: 4062  
 $\bar{X}$ : 31.13 cm; 12.26 in  
SD: 2.03 cm; 0.80 in  
V%: 6.52

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Elbow Circumference (Flexed)*  
KOREA: *Elbow Circumference (Flexed)*  
NATO: *Elbow Circumference, Flexed*  
WAF RECRUITS: *Elbow Circumference (Flexed)*  
WOMEN: *Elbow Girth*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Elbow Circumference, Extended*

**ELBOW CIRCUMFERENCE (FLEXED)**

**Reference: WAF RECRUITS**

Ask the subject to flex her right arm so that her elbow is bent at a right angle. Then measure the circumference with a tape, passing over the tip and through the crotch of the elbow.

N: 349  
 $\bar{X}$ : 28.49 cm; 11.22 in  
SD: 2.73 cm; 1.07 in  
V%: 9.57

**Similar Dimensions:**

***Elbow Circumference (Flexed)—WAF RECRUITS (Continued)***

**Equivalent:**

JAPAN: *Elbow Circumference (Flexed)*  
KOREA: *Elbow Circumference (Flexed)*  
NATO: *Elbow Circumference, Flexed*  
USAF '50: *Elbow Circumference (Flexed)*  
WOMEN: *Elbow Girth*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Elbow Circumference, Extended*

**ELBOW CLEARANCE BACK (HORIZ.)**

**Reference: FAA**

The subject sits erect with the right elbow flexed at 90°. The upper arm is then circumducted posteriorly as far as possible and the horizontal distance between the tip of the elbow and the plane of the back is recorded.

N: 679  
X: 14.95 cm; 5.89 in  
SD: 3.87 cm; 1.52 in  
V%: 25.88

**Similar Dimensions:**

None

**ELBOW CLEARANCE BACK (VERTICAL)**

**Reference: FAA**

†The subject sits erect with the right elbow flexed at 90°. The upper arm is then

***Elbow Clearance Back (Vertical)—FAA (Continued)***

circumducted posteriorly as far as possible† The vertical distance from the tip of the elbow to the seat level is recorded.

N: 681  
X: 61.14 cm; 24.07 in  
SD: 21.89 cm; 8.62 in  
V%: 35.81

**Similar Dimensions:**

None

**ELBOW CLEARANCE OUT (HORIZ.)**

**Reference: FAA**

†The subject sits erect and extends the right upper arm laterally† The horizontal distance between the tip of the elbow to the mid-line of the back is recorded.  
[Elbow flexed]

N: 681  
X: 49.55 cm; 19.51 in  
SD: 3.27 cm; 1.29 in  
V%: 6.60

**Similar Dimensions:**

None

**See Also:**

*Span Akimbo*

**ELBOW CLEARANCE OUT (VERT.)**

**Reference: FAA**

The subject sits erect and extends the right upper arm laterally. The vertical distance from the tip of the elbow to the seat level is recorded.

N: 681  
X: 66.56 cm; 26.21 in  
SD: 12.28 cm; 4.83 in  
V%: 18.44

***Elbow Clearance Out (Vert.)—FAA (Continued)***

**Similar Dimensions:**

None

**ELBOW-ELBOW BREADTH**

**Reference: FAA**

The maximum horizontal distance between the lateral surface of the elbows.

N: 681  
X: 44.72 cm; 17.60 in  
SD: 3.90 cm; 1.54 in  
V%: 8.73

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

None

**Indeterminable:**

Reference dimension description does not specify position of elbows relative to trunk.

AAF: *Bi-epicondylar, Elbows*  
ARMY ARMORED: *Bi-epicondylar, Elbows*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
NATO: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*  
WAC: *Elbow Breadth*  
WASP: *Bi-epicondylar, Elbows*

**See Also:**

*Maximum Body Breadth*  
*Maximum Forearm-Forearm Breadth*

## ELBOW-FINGERTIP LENGTH (FOREARM-HAND LENGTH)

Reference: ARMY '66

Subject sits erect, with his arms bent to form right angles at the elbows and with his hands extended. Elbow-fingertip length is measured as the horizontal distance from the back of the right elbow to the tip of the middle finger of the extended right hand. An anthropometer is used.

N: 6632  
X: 47.95 cm; 18.88 in  
SD: 2.31 cm; 0.91 in  
V%: 4.81

### Similar Dimensions:

#### Equivalent:

ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrâne dactylion*  
JAPAN: *Forearm-Hand Length*  
KORE: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

#### Not Equivalent:

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

#### Indeterminable:

None

#### See Also:

*Elbow to Center of Grip*

## ELBOW-FINGERTIP LENGTH (FOREARM-HAND LENGTH)

### Reference: NAVY RECRUITS

Subject sits erect, with his arms bent to form right angles at the elbows and with his hands extended. Elbow-fingertip length is measured as the horizontal distance from the back of the right elbow to the tip of the middle finger of the extended right hand. An anthropometer is used.

N: 4095  
X: 47.65 cm; 18.76 in  
SD: 2.13 cm; 0.84 in  
V%: 4.48

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrâne dactylion*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

#### Not Equivalent:

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

#### Indeterminable:

None

### See Also:

*Elbow to Center of Grip*

## ELBOW-FINGERTIP LENGTH (FOREARM-HAND LENGTH)

### Reference: USMC

Subject sits erect, with his arms bent to form right angles at the elbows and with his hands extended. Elbow-fingertip length is measured as the horizontal distance from the back of the right elbow to the tip of the middle finger of the extended right hand. An anthropometer is used.

N: 2008  
 $\bar{X}$ : 47.82 cm; 18.83 in  
SD: 2.20 cm; 0.87 in  
V%: 4.64

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrâne dactylion*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

#### Not Equivalent:

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

#### Indeterminable:

None

### See Also:

*Elbow to Center of Grip*

## ELBOW GIRTH

### Reference: WOMEN

Tape. . . . The subject stood in a normal, erect position, her right arm flexed approximately 90 degrees at the elbow and the hand and fingers extended anteriorly. The upper arm was directed downward perpendicularly to the floor. . . . The tape, with zero point in front of measurer, was placed around the elbow so that it passed without constriction over the landmark on the olecranon †the most lateral point of the olecranon† and bisected the angle of the bent elbow.

N: 10042  
X: 26.29 cm; 10.35 in  
SD: 2.24 cm; 0.88 in  
V%: 8.5

### Similar Dimensions:

#### Equivalent:

JAPAN: *Elbow Circumference (Flexed)*  
KOREA: *Elbow Circumference (Flexed)*  
NATO: *Elbow Circumference, Flexed*  
USAF '50: *Elbow Circumference (Flexed)*  
WAF RECRUITS: *Elbow Circumference (Flexed)*

#### Not Equivalent:

None

#### Indeterminable:

None

### See Also:

*Elbow Circumference, Extended*

## ELBOW HEIGHT

### Reference: FAA

The vertical distance from radiale to the floor.

### ***Elbow Height—FAA (Continued)***

N: 678  
 $\bar{X}$ : 111.68 cm; 43.97 in  
SD: 5.16 cm; 2.03 in  
V%: 4.16

#### **Similar Dimensions:**

##### **Equivalent:**

GENEVA: *Elbow [Height]*  
JAPAN: *Elbow Height*  
KOREA: *Elbow Height*  
MARTIN: *Hoche der rechten Ellenbogengelenkfuge ueber dem Boden*  
MONTAGU: *Right Radiale Height*  
NATO: *Radiale Height (Elbow Height)*  
USAF '50: *Elbow Height (Radiale Height)*

##### **Not Equivalent:**

HOOTON: *Elbow Height - [height . . . above the seat]*

##### **Indeterminable:**

None

## **ELBOW HEIGHT**

#### **Reference: HOOTON**

[In special chair]. The individual was asked to place his forearm on (and parallel with) the arm-rest, which was raised or lowered until the individual's shoulders were level and the angle between his upper arm and forearm was approximately 90 degrees. [Measured as height of arm rest above the seat].

<i>Males</i>	<i>Females</i>	<i>Total Series</i>
N: 1959	1908	3867
Median: 24.4 cm; 9.6 in	24.6 cm; 9.7 in	24.4 cm; 9.6 in
SD: NDA	NDA	NDA
V%: NDA	NDA	NDA
	683	

*Elbow Height—HOOTON (Continued)*

**Similar Dimensions:**

**Equivalent:**

TUFTS: *Elbow-Seat*

**Not Equivalent:**

FAA: *Elbow Height—to the floor*

GENEVA: *Elbow [Height]—height . . . above the ground*

INDIA: *Elbow to Seat*—[The posture of the subject's shoulders are not manipulated.]

JAPAN: *Elbow Height—from the floor*

KOREA: *Elbow Height—from the floor*

KOREA: *Elbow Rest Height (Sitting)*—[The posture of the subject's shoulders are not manipulated.]

NATO: *Elbow Rest Height, Sitting*—[The posture of the subject's shoulders are not manipulated.]

NATO: *Radiale Height (Elbow Height)*—from the standing surface

US ADULTS: *Elbow Rest Height—to the lowest bony portion of the elbow*

USAF '50: *Elbow Height (Radiale Height)*—from the floor

USAF '50: *Elbow Rest Height (Sitting)*—[The posture of the subject's shoulders are not manipulated.]

USN: *Elbow Rest Height, Sitting*—[The posture of the subject's shoulders are not manipulated.]

**Indeterminable:**

None

**See Also:**

*Radiale Height*

**ELBOW HEIGHT**

**Reference: JAPAN**

Subject stands erect, his arms hanging naturally at his sides. Using the anthropometer, measure the vertical distance from the floor to the depression between the humerus and radius of the right arm. This depression can be seen in the lateral side of the elbow.

N: 235

$\bar{X}$ : 104.50 cm; 41.14 in

SD: 3.76 cm; 1.48 in

V%: 3.60

**Elbow Height—JAPAN (Continued)**

**Similar Dimensions:**

**Equivalent:**

FAA: *Elbow Height*  
GENEVA: *Elbow [Height]*  
KOREA: *Elbow Height*  
MARTIN: *Hoehe der rechten Ellenbogengelenkfuge ueber dem Boden*  
MONTAGU: *Right Radiale Height*  
NATO: *Radiale Height (Elbow Height)*  
USAF '50: *Elbow Height (Radiale Height)*

**Not Equivalent:**

HOOTON: *Elbow Height - [height . . . above the seat]*

**Indeterminable:**

None

**ELBOW HEIGHT**

**Reference: KOREA**

Subject stands erect, his arms hanging naturally at his sides. Using the anthropometer, measure the vertical distance from the floor to the depression between the humerus and radius of the right arm. This depression can be seen in the lateral side of the elbow.

N: 264  
X: 107.35 cm; 42.26 in  
SD: 3.98 cm; 1.57 in  
V%: 3.71

**Similar Dimensions:**

**Equivalent:**

FAA: *Elbow Height*  
GENEVA: *Elbow [Height]*  
JAPAN: *Elbow Height*  
MARTIN: *Hoehe der rechten Ellenbogengelenkfuge ueber dem Boden*  
MONTAGU: *Right Radiale Height*  
NATO: *Radiale Height (Elbow Height)*

***Elbow Height—KOREA (Continued)***

**USAF '50: Elbow Height (Radiale Height)**

**Not Equivalent:**

**HOOTON: Elbow Height - [height . . . above the seat]**

**Indeterminable:**

**None**

**ELBOW HEIGHT (RADIALE HEIGHT)**

**Reference: USAF '50**

Subject stands erect, his arms hanging naturally at his sides. Using the anthropometer, measure the vertical distance from the floor to the depression between the humerus and the radius of the right arm. This depression can be seen in the lateral side of the elbow.

**N: 4063**  
**X: 110.48 cm; 43.50 in**  
**SD: 4.50 cm; 1.77 in**  
**V%: 4.06**

**Similar Dimensions:**

**Equivalent:**

**FAA: Elbow Height**  
**GENEVA: Elbow [Height]**  
**JAPAN: Elbow Height**  
**KOREA: Elbow Height**  
**MARTIN: Hoehe der rechten Ellenbogengelenkfuge ueber dem Boden**  
**MONTAGU: Right Radiale Height**  
**NATO: Radiale Height (Elbow Height)**

**Not Equivalent:**

**HOOTON: Elbow Height - [height . . . above the seat]**

**Indeterminable:**

**None**

## ELBOW REST HEIGHT

### Reference: US ADULTS

†Examinee seated on a flat, horizontal board, with the knees at right angles, thighs horizontal, and popliteal areas lightly touching the seat surface† The examinee sat erect, shoulders relaxed, both elbows at right angles, fingers straight. The measurement was made with an anthropometer held vertically from the sitting surface to the lowest bony portion of the elbow, using light contact only.

<i>Men</i>	<i>Women</i>
N: 3091	3581
$\bar{X}$ : 24.1 cm; 9.5 in	23.1 cm; 9.1 in
Est SD: [3.23 cm; 1.27 in]	[3.05 cm; 1.20 in]
Est V%: [7.5]	[8.0]

### Similar Dimensions:

#### Equivalent:

KOREA: *Elbow Rest Height (Sitting)*  
NATO: *Elbow Rest Height, Sitting*  
USAF '50: *Elbow Rest Height (Sitting)*  
USN: *Elbow Rest Height, Sitting*

#### Not Equivalent:

HOOTON: *Elbow Height*—arm-rest . . . raised or lowered until . . . shoulders were level  
TUFTS: *Elbow-Seat*—chair-arm . . . adjusted until his shoulders were level

#### Indeterminable:

INDIA: *Elbow to Seat*—[Meaning of "fore-hand" is not clear.]

### See Also:

*Radiale Height*

## ELBOW REST HEIGHT (SITTING)

### Reference: KOREA

Subject sits erect, his feet resting on a surface so that his knees are bent at about right angles, his right upper arm hanging at his side and his forearm extended hor-

### *Elbow Rest Height (Sitting)—KOREA (Continued)*

horizontally. Using the anthropometer, measure the vertical distance from the sitting surface to the bottom of the right elbow.

N: 264  
 $\bar{X}$ : 24.66 cm; 9.71 in  
SD: 2.45 cm; 0.97 in  
V%: 10.00

#### Similar Dimensions:

##### Equivalent:

NATO: *Elbow Rest Height, Sitting*  
US ADULTS: *Elbow Rest Height*  
USAF '50: *Elbow Rest Height (Sitting)*  
USN: *Elbow Rest Height, Sitting*

##### Not Equivalent:

HOOTON: *Elbow Height—arm-rest . . . raised or lowered until . . . shoulders were level*  
TUFTS: *Elbow-Seat—chair-arm . . . adjusted until his shoulders were level*

##### Indeterminable:

INDIA: *Elbow to Seat*—[Meaning of "fore-hand" is not clear.]

#### See Also:

*Radiale Height*

## ELBOW REST HEIGHT, SITTING

#### Reference: NATO

Subject sits erect, his feet resting on a surface adjusted so that his knees are bent at about right angles, his right upper arm hanging at his side and his lower arm extended forward horizontally. Using the anthropometer, measure the vertical distance from the sitting surface to the bottom of the tip of the right elbow.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1034	1358
$\bar{X}$ : 22.37 cm; 8.81 in	23.07 cm; 9.08 in	22.45 cm; 88.4 in
SD: 2.47 cm; 0.97 in	2.35 cm; 0.93 in	2.26 cm; 0.89 in
V%: 11.02	10.17	10.07

*Elbow Rest Height, Sitting—NATO (Continued)*

**Similar Dimensions:**

**Equivalent:**

KOREA: *Elbow Rest Height (Sitting)*  
US ADULTS: *Elbow Rest Height*  
USAF '50: *Elbow Rest Height (Sitting)*  
USN: *Elbow Rest Height, Sitting*

**Not Equivalent:**

HOOTON: *Elbow Height—arm-rest . . . raised or lowered until . . . shoulders were level*  
TUFTS: *Elbow-Seat—chair-arm . . . adjusted until his shoulders were level*

**Indeterminable:**

INDIA: *Elbow to Seat—[Meaning of "fore-hand" is not clear.]*

**See Also:**

*Radiale Height*

**ELBOW REST HEIGHT (SITTING)**

**Reference: USAF '50**

Subject sits erect, his feet resting on a surface so that his knees are bent at about right angles, his right upper arm hanging at his side and his forearm extended horizontally. Using the anthropometer, measure the vertical distance from the sitting surface to the bottom of the right elbow.

N: 4063  
 $\bar{X}$ : 23.16 cm; 9.12 in  
SD: 2.63 cm; 1.04 in  
V%: 11.36

**Similar Dimensions:**

**Equivalent:**

KOREA: *Elbow Rest Height (Sitting)*  
NATO: *Elbow Rest Height, Sitting*  
US ADULTS: *Elbow Rest Height*

*Elbow Rest Height (Sitting)—USAF '50 (Continued)*

*USN: Elbow Rest Height, Sitting*

**Not Equivalent:**

HOOTON: *Elbow Height*—arm-rest . . . raised or lowered until . . . shoulders were level

TUFTS: *Elbow-Seat*—chair-arm . . . adjusted until his shoulders were level

**Indeterminable:**

INDIA: *Elbow 'o Seat*—[Meaning of "fore-hand" is not clear.]

**See Also:**

*Radiale Height*

**ELBOW REST HEIGHT, SITTING**

**Reference: USN**

Subject sits erect, his feet resting on a surface adjusted so that his knees are bent at about right angles, his right upper arm hanging at his side and his lower arm extended forward horizontally. Using the anthropometer, measure the vertical distance from the sitting surface to the bottom of the tip of the right elbow.

N: 1549

$\bar{X}$ : 23.50 cm; 9.25 in

SD: 2.52 cm; 0.99 in

V%: 10.71

**Similar Dimensions:**

**Equivalent:**

KOREA: *Elbow Rest Height (Sitting)*

NATO: *Elbow Rest Height, Sitting*

US ADULTS: *Elbow Rest Height*

USAF '50: *Elbow Rest Height (Sitting)*

**Not Equivalent:**

HOOTON: *Elbow Height*—arm-rest . . . raised or lowered until . . . shoulders were level

TUFTS: *Elbow-Seat*—chair-arm . . . adjusted until his shoulders were level

*Elbow Rest Height, Sitting—USN (Continued)*

Indeterminable:

INDIA: *Elbow to Seat*—[Meaning of "fore-hand" is not clear.]

See Also:

*Radiale Height*

**ELBOW-SEAT**

**Reference: TUFYS**

Subject sitting in the special chair, placed his forearm on the chair-arm which was adjusted until his shoulders were level and the angle between the upper arm and forearm 90 degrees. The distance from the seat of the chair to the surface of the arm-rest was measured.

No Data Available

**Similar Dimensions:**

Equivalent:

HOOTON: *Elbow Height*

Not Equivalent:

INDIA: *Elbow to Seat*—[The posture of the subject's shoulders are not manipulated.]

KOREA: *Elbow Rest Height (Sitting)*—[The posture of the subject's shoulders are not manipulated.]

NATO: *Elbow Rest Height, Sitting*—[The posture of the subject's shoulders are not manipulated.]

US ADULTS: *Elbow Rest Height*—[The posture of the subject's shoulders are not manipulated.]

USAF '50: *Elbow Rest Height (Sitting)*—[The posture of the subject's shoulders are not manipulated.]

USN: *Elbow Rest Height, Sitting*—[The posture of the subject's shoulders are not manipulated.]

Indeterminable:

None

*Elbow-Seat—TUFTS (Continued)*

**See Also:**

*Radiale Height*

**ELBOW TO CENTER OF GRIP**

**Reference: ARMY ARMORED**

†Back against wall. Elbow against wall and parallel to floor† holding pencil in center of grip perpendicular to line of forearm, distance from wall to pencil point.

N: 101  
X: 36.7 cm; 14.2 in  
SD: NDA  
V%: NDA

**Similar Dimensions:**

None

**See Also:**

*Forearm-Hand Length*

**ELBOW-TO-ELBOW BREADTH**

**Reference: KOREA**

Subject sits erect, his upper arms hanging at his side, his forearms extended horizontally, and his elbows resting lightly against his body. Using the anthropometer, measure the maximum horizontal distance across the lateral surfaces of the elbows.

N: 264  
X: 41.52 cm; 16.34 in  
SD: 2.80 cm; 1.10 in  
V%: 6.74

**Similar Dimensions:**

Equivalent:

### ***Elbow-To-Elbow Breadth—KOREA (Continued)***

AAF: *Bi-epicondylar, Elbows*  
ARMY ARMORED: *Bi-epicondylar, Elbows*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
NATO: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*  
WASP: *Bi-epicondylar, Elbows*

Not Equivalent:

None

Indeterminable:

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*

WAC: *Elbow Breadth*

See Also:

*Maximum Body Breadth*

*Maximum Forearm-Forearm Breadth*

### **ELBOW-TO-ELBOW BREADTH**

Reference: NATO

Subject sits erect, his upper arms hanging at his side, his lower arms extended forward horizontally, and his elbows resting lightly against his body. Using the anthropometer, measure the maximum horizontal distance across the lateral surfaces of the elbows.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 44.83 cm; 17.65 in	44.84 cm; 17.65 in	46.59 cm; 18.34 in
SD: 3.09 cm; 1.22 in	2.72 cm; 1.07 in	2.96 cm; 1.17 in
V%: 6.89	6.05	6.34

Similar Dimensions:

Equivalent:

### *Elbow-To-Elbow Breadth—NATO (Continued)*

AAF: *Bi-epicondylar, Elbows*  
ARMY ARMORED: *Bi-epicondylar, Elbow*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*  
WASP: *Bi-epicondylar, Elbows*

Not Equivalent:

None

Indeterminable:

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*  
WAC: *Elbow Breadth*

See Also:

*Maximum Body Breadth*  
*Maximum Forearm-Forearm Breadth*

### **ELBOW-TO-ELBOW BREADTH**

**Reference: US ADULTS**

†Examinee seated on a flat, horizontal board, with the knees at right angles, thighs horizontal, and popliteal areas lightly touching the seat surface† The examinee sat erect, knees together, forearms at right angles, hands open, palms facing each other, and elbows held as tightly as possible to the sides. The measurement was made with an anthropometer, across the humeral epicondyles (lateral projections of the elbows) with firm pressure.

#### *Men*

N: 3091  
X: 42.2 cm; 16.6 in  
Est SD: [4.70 cm; 1.85 in]  
Est V%: [9.0]

#### *Women*

3581  
38.9 cm; 15.3 in  
[5.36 cm; 2.11 in]  
[7.3]

**Similar Dimensions:**

***Elbow-To-Elbow Breadth—US ADULTS (Continued)***

**Equivalent:**

AAF: *Bi-epicondylar, Elbows*  
ARMY ARMORED: *Bi-epicondylar, Elbows*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
NATO: *Elbow-to-Elbow Breadth*  
USAF '50: *Elbow-to-Elbow Breadth*  
WASP: *Bi-epicondylar, Elbows*

**Not Equivalent:**

None

**Indeterminable:**

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*  
WAC: *Elbow Breadth*

**See Also:**

*Maximum Body Breadth*  
*Maximum Forearm-Forearm Breadth*

**ELBOW-TO-ELBOW BREADTH**

**Reference: USAF '50**

Subject sits erect, his upper arms hanging at his side, his forearms extended horizontally, and his elbows resting lightly against his body. Using the anthropometer, measure the maximum horizontal distance across the lateral surfaces of the elbows.

N: 4060  
 $\bar{X}$ : 43.89 cm; 17.28 in  
SD: 3.61 cm; 1.42 in  
V%: 8.23

**Similar Dimensions:**

**Equivalent:**

***Elbow-To-Elbow Breadth—USAF '50 (Continued)***

AAF: *Bi-epicondylar, Elbows*  
ARMY ARMORED: *Bi-epicondylar, Elbows*  
ARMY QM: *Elbow Breadth*  
INDIA: *Elbows [Width]*  
KOREA: *Elbow-to-Elbow Breadth*  
NATO: *Elbow-to-Elbow Breadth*  
US ADULTS: *Elbow-to-Elbow Breadth*  
WAS: *Bi-epicondylar, Elbows*

**Not Equivalent:**

None

**Indeterminable:**

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*  
WAC: *Elbow Breadth*

**See Also:**

*Maximum Body Breadth*  
*Maximum Forearm-Forearm Breadth*

**ELBOW TO FINGER TIP**

**Reference: ARMY ARMORED**

Back against wall. Elbow against wall and parallel [sic] to floor. Distance from wall to end of longest finger.

N: 101  
X: 48.0 cm; 18.9 in  
SD: NDA  
V%: NDA

**Similar Dimensions:**

**Equivalent:**

INDIA: *Fore-Arm [Length]*

**Not Equivalent:**

**Elbow To Finger Tip—ARMY ARMORED (Continued)**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)* - [arm unsupported]  
ARMY AVIATORS: *Forearm-Hand Length* - [arm unsupported]  
ARMY QM: *Forearm-Hand Length* - [arm unsupported]  
FAA: *Forearm-Hand Length* - [arm unsupported]  
FRANCE '55: *Coudée* - [forearm . . . placed on the table]  
FRANCE '65: *Longueur olécrâne dactylion* - [arm unsupported]  
JAPAN: *Forearm-Hand Length* - [arm unsupported]  
KOREA: *Forearm-Hand Length* - [arm unsupported]  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)* - [arm unsupported]  
THAI: *Forearm-Hand Length* - [arm unsupported]  
USAF '50: *Forearm-Hand Length* - [arm unsupported]  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)* - [arm unsupported]  
USN: *Forearm-Hand Length* - [arm unsupported]  
VIETNAM: *Forearm-Hand Length* - [arm unsupported]  
WAC: *Forearm-Hand Length* - [arm unsupported]

Indeterminable:

None

**See Also:**

*Elbow to Center of Grip*

**ELBOW TO SEAT**

**Reference: INDIA**

†The height of the seat [13½ in - 34.3 cm] is first adjusted by adding to or reducing the number of pieces of wooden blocks [½ in - 1.27 cm] on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with the back against one wing of the board and his right side touching the other wing.† arm touching against the side of the body and the fore-arm at right angle and arm with palm stretched facing inwards.† Height from floor when the block is placed at the lower edge of fore-hand is noted and subtracted from seat height.

N: 691  
X̄: 23.25 cm; 9.15 in  
SD: 2.32 cm; 0.91 in  
V%: [9.98]

*Elbow to Seat—INDIA (Continued)*

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

HOOTON: *Elbow Height*—arm-rest . . . raised or lowered until . . . shoulders were level

TUFTS: *Elbow-Seat*—chair-arm . . . adjusted until his shoulders were level

Indeterminable:

In the reference dimension description, the meaning of the term "fore-hand" is unclear, insofar as understanding the nature of this dimension.

KOREA: *Elbow Rest Height (Sitting)*

NATO: *Elbow Rest Height, Sitting*

US ADULTS: *Elbow Rest Height*

USAF '50: *Elbow Rest Height (Sitting)*

USN: *Elbow Rest Height, Sitting*

**See Also:**

*Radiale Height*

**ELBOW WRIST LENGTH**

**Reference: BULGARIA**

[Rectilinear distance from radiale to stylium. Measured with pelvimeter, with arm hanging relaxed.]

<i>Men</i>	<i>Women</i>
N: 1663	1578
$\bar{X}$ : [26.23 cm; 10.33 in]	[23.98 cm; 9.44 in]
Est SD: [1.85 cm; 0.73 in]	[1.79 cm; 0.70 in]
Est V%: [7.04]	[7.47]

**Elbow Wrist Length—BULGARIA (Continued)**

**Similar Dimensions:**

**Equivalent:**

COMAS: *Forearm Length*  
MARTIN: *Laenge des rechten Unterarmes*  
MONTAGU: *Lower Arm Length*

**Not Equivalent:**

NATO: *Elbow-Wrist Length - tip of right elbow to stylium*

**Indeterminable:**

None

**ELBOW-WRIST LENGTH**

**Reference: NATO**

Subject sits erect, his right upper arm hanging at his side, his lower arm and hand extended forward horizontally. Using the anthropometer, measure the distance from the tip of the right elbow to the stylium landmark *the most distal point of the radius*.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 27.51 cm; 10.83 in	27.75 cm; 10.93 in	27.82 cm; 10.95 in
SD: 1.23 cm; 0.48 in	1.21 cm; 0.48 in	1.33 cm; 0.52 in
V%: 4.47	4.34	4.76

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

BULGARIA: *Elbow Wrist Length - radiale to stylium*  
COMAS: *Forearm Length - radiale . . . to stylium*  
MARTIN: *Laenge des rechten Unterarmes - [radiale . . . from right stylium]*  
MONTAGU: *Lower Arm Length - from radiale to stylium*

**Elbow-Wrist Length—NATO (Continued)**

Indeterminable:

None

**ELBOWS [WIDTH]**

**Reference: INDIA**

†The height of the seat [ $13\frac{1}{2}$  in - 34.3 cm] is first adjusted by adding to or reducing the number of pieces of wooden blocks [ $\frac{1}{2}$  in - 1.27 cm] on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with the back against one wing of the board and his right side touching the other wing.† †arm touching against the side of the body and the forearm at right angle and arm with palm stretched facing inwards.† . . . the block is brought into contact with the most advanced point at the left elbow.

N: 691

$\bar{X}$ : 42.52 cm; 16.74 in

SD: 2.35 cm; 0.93 in

V%: [5.28]

Equivalent:

AAF: *Bi-epicondylar, Elbows*

ARMY ARMORED: *Bi-epicondylar, Elbows*

ARMY QM: *Elbow Breadth*

KOREA: *Elbow-to-Elbow Breadth*

NATO: *Elbow-to-Elbow Breadth*

USAF '50: *Elbow-to-Elbow Breadth*

US ADULTS: *Elbow-to-Elbow Breadth*

WASP: *Bi-epicondylar, Elbows*

Not Equivalent:

None

Indeterminable:

Position of elbows relative to trunk not specified in following dimensions.

FAA: *Elbow-Elbow Breadth*

WAC: *Elbow Breadth*

**See Also:**

**Elbows [Width]—INDIA (Continued)**

*Maximum Body Breadth*  
*Maximum Forearm-Forearm Breadth*

**ENVERGURE DES COUDES [SPAN AKIMBO]**

**Reference: FRANCE '65**

Sujet debout, au garde à vous, les mains au contact du thorax à hauteur des mamelons. Distance entre les extrémités des olécrânes.

[The subject stands at attention, his elbows extending perpendicular to the body with the hands touching the thorax at the level of the nipples. Distance between the extremities of the elbows.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 95.22 cm; 37.48 in	95.24 cm, 37.49 in	95.79 cm; 37.71 in
SD: 4.09 cm; 1.61 in	4.19 cm; 1.64 in	3.75 cm; 1.47 in
V%: 4.29	4.40	3.92

**Similar Dimensions:**

Equivalent:

AAF: *Span Akimbo*  
ARMY ARMORED: *Span Akimbo*  
INDIA: *Span Akimbo*  
TUFTS: *Span Akimbo*  
WASP: *Span Akimbo*

Not Equivalent:

None

Indeterminable:

None

**See Also:**

*Elbow Clearance Out (Horiz.)*

*Span*

## EXTERNAL CANTHUS-TO-VERTEX HEIGHT

### Reference: NATO

Subject stands comfortably under the headboard with his head oriented in the Frankfort plane. The headboard slide is then adjusted so that its wall and ceiling surfaces rest snugly against the back and vertex *(the top of the head in the mid-sagittal plane when the head is held in the Frankfort plane)* of the subject's head. His head is then rechecked for orientation and for continued contact at both points. Using the height gauge, measure the vertical distance from the right external canthus to vertex.

Turkey	Greece	Italy
N: 915	1084	1356
X: 11.19 cm; 4.41 in	11.71 cm; 4.61 in	11.25 cm; 4.43 in
SD: 0.74 cm; 0.29 in	0.70 cm; 0.28 in	0.71 cm; 0.28 in
V%: 6.58	5.95	6.35

### Similar Dimensions:

#### Equivalent:

INDIA: *Eye to the Top of the Head*

#### Not Equivalent:

ARMY ARMORED: *Eye Height - pupil to the top of the head*

#### Indeterminable:

None

### See Also:

*External Canthus-to-Wall*

## EXTERNAL CANTHUS TO WALL

### Reference: KOREA

Subject stands erect, looking directly forward (head oriented in the Frankfort plane), both shoulders and the back of his head touching a wall. Using the anthropometer, measure the horizontal distance from the wall to the outer corner (external canthus) of the right eye.

***External Canthus To Wall—KOREA (Continued)***

N: 264  
 $\bar{X}$ : 17.29 cm; 6.81 in  
SD: 0.96 cm; 0.33 in  
V%: 5.54

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Occiput-External Canthus Distance*  
NATO: *External Canthus-to-Wall Distance*  
NAVY RECRUITS: *Occiput-External Canthus Distance*  
USAF '50: *External Canthus to Wall*  
USMC: *Occiput-External Canthus Distance*  
USN: *External Canthus to Wall*

**Not Equivalent:**

None

**Indeterminable:**

None

**EXTERNAL CANTHUS TO WALL DISTANCE**

**Reference: NATO**

Subject stands comfortably under the headboard with his head oriented in the Frankfort plane. The headboard slide is then adjusted so that its wall and ceiling surfaces rest snugly against the back and vertex *(the top of the head in the mid-sagittal plane when the head is held in the Frankfort plane)* of the subject's head. His head is then rechecked for orientation and for continued contact at both points. Using the height gauge, measure the horizontal distance from external canthus to the wall.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 687	1084	1358
$\bar{X}$ : 16.69 cm; 6.57 in	16.41 cm; 6.46 in	17.02 cm; 6.70 in
SD: 0.71 cm; 0.28 in	0.69 cm; 0.27 in	0.67 cm; 0.26 in
V%: 4.22	4.22	3.95

**Similar Dimensions:**

**Equivalent:**

***External Canthus-To-Wall—NATO (Continued)***

ARMY '66: Occiput-External Canthus Distance  
KOREA: External Canthus to Wall  
NAVY RECRUITS: Occiput-External Canthus Distance  
USAF '50: External Canthus to Wall  
USMC: Occiput-External Canthus Distance  
USN: External Canthus to Wall

**Not Equivalent:**

None

**Indeterminable:**

None

**EXTERNAL CANTHUS TO WALL**

**Reference: USAF '50**

Subject stands erect, looking directly forward (head oriented in the Frankfurt plane), both shoulders and the back of his head touching a wall. Using the anthropometer, measure the horizontal distance from the wall to the outer corner (external canthus) of the right eye.

N: 4062  
X: 17.21 cm; 6.78 in  
SD: 0.80 cm; 0.32 in  
V%: 4.67

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Occiput-External Canthus Distance  
KOREA: External Canthus to Wall  
NATO: External Canthus-to-Wall Distance  
NAVY RECRUITS: Occiput-External Canthus Distance  
USMC: Occiput-External Canthus Distance  
USN: External Canthus to Wall

**Not Equivalent:**

None

*External Canthus To Wall—USAF '50 (Continued)*

Indeterminable:

None

**EXTERNAL CANTHUS TO WALL**

**Reference: USN**

Subject stands comfortably under the headboard with his head oriented in the Frankfort plane. The headboard slide is then adjusted so that its wall and ceiling surfaces rest snugly against the back and vertex *†the top of the head in the mid-sagittal plane when the head is held in the Frankfort plane†* of the subject's head. His head is then rechecked for orientation and for continued contact at both points. Using the height gauge, measure the horizontal distance from external canthus to the wall.

N: 1549  
X: 17.87 cm; 7.00 in  
SD: 0.70 cm; 0.28 in  
V%: 3.94

**Similar Dimensions:**

Equivalent:

ARMY '66: *Occiput-External Canthus Distance*  
KOREA: *External Canthus to Wall*  
NATO: *External Canthus-to-Wall Distance*  
NAVY RECRUITS: *Occiput-External Canthus Distance*  
USAF '50: *External Canthus to Wall*  
USMC: *Occiput-External Canthus Distance*

Not Equivalent:

None

Indeterminable:

None

## EXTERNAL CONJUGATE (ANTERO-POSTERIOR) DIAMETER OF THE PELVIS

**Reference:** GENEVA

†The subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal† [A]natomical landmarks: in front, the superior margin of the symphysis pubis in the middle line: posteriorly, the tip of the spinous process of the 5th lumbar vertebra. [Maximum distance between the anterior and posterior anatomical landmarks].

No Data Available

**Similar Dimensions:**

None

**See Also:**

*Buttock Depth*

## EXTRA-CANTHIC DIAMETER

**Reference:** MONTAGNI

(Sliding Compass). From the lateral point of the junction of the upper and lower eyelids of the one side to the other.

No Data Available

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Biocular*  
KOREA: *Biocular Diameter*  
MONACO: *Largeur bipalpébrale externe*  
NATO: *Biocular Diameter*  
USAF '50: *Biocular Diameter*  
USN: *Biocular Diameter*  
WAC: *Biocular*

**Not Equivalent:**

**Extra-Canthic Diameter—MONTAGU (Continued)**

None

Indeterminable:

None

**EYE HEIGHT**

**Reference: ARMY ARMORED**

The distance from the center of the pupil to the top of the head with the subject sitting comfortably and looking straight ahead was measured by having man peer thru a periscope with a 1/8 inch entrance slit. Periscope adjusted to man, head held vertical, and measurement made from center of slit to top of head.

N: 915

Median: 11.2 cm; 4.4 in

SD: NDA

V%: NDA

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

FAA: *Eye Height* - to the floor

INDIA: *Eye to the Top of the Head* - lable of the outer canthus of left eye to the top of the head

KOREA: *Eye Height (Internal Canthus Height)* - from the floor

NATO: *External Canthus-to-Vertex Height* - from the right external canthus to vertex

USAF '50: *Eye Height (Internal Canthus Height)* - from the floor

WASP: *Eye Height* - from seat to pupil of eye

Indeterminable:

None

**See Also:**

*External Canthus-to-Wall*

## EYE HEIGHT

### Reference: FAA

Vertical distance from the inner angle of the eye to the floor.

N: 678  
X: 164.77 cm; 64.87 in  
SD: 6.18 cm; 2.43 in  
V%: 3.75

### Similar Dimensions:

#### Equivalent:

KOREA: *Eye Height (Internal Canthus Height)*  
USAF '50: *Eye Height (Internal Canthus Height)*

#### Not Equivalent:

ARMY ARMORED: *Eye Height - pupil to the top of the head*

#### Indeterminable:

None

## EYE HEIGHT (INTERNAL CANTHUS HEIGHT)

### Reference: KOREA

Subject stands erect looking directly forward (head oriented in the Frankfurt plane). Using the anthropometer, measure the vertical distance from the floor to the inner corner of the right eye (internal canthus).

N: 264  
X: 157.62 cm; 62.05 in  
SD: 4.92 cm; 1.94 in  
V%: 3.11

### Similar Dimensions:

#### Equivalent:

FAA: *Eye Height*  
USAF '50: *Eye Height (Internal Canthus Height)*

***Eye Height (Internal Canthus Height)—KOREA (Continued)***

Not Equivalent:

ARMY ARMORED: *Eye Height* - pupil to the top of the head

Indeterminable:

None

**EYE HEIGHT (INTERNAL CANTHUS HEIGHT)**

**Reference:** USAF '50

Subject stands erect looking directly forward (head oriented in the Frankfort plane). Using the anthropometer, measure the vertical distance from the floor to the inner corner of the right eye (internal canthus).

N: 4063  
 $\bar{X}$ : 164.31 cm; 64.69 in  
SD: 6.04 cm; 2.38 in  
V%: 3.68

**Similar Dimensions:**

Equivalent:

FAA: *Eye Height*  
KOREA: *Eye Height (Internal Canthus Height)*

Not Equivalent:

ARMY ARMORED: *Eye Height* - pupil to the top of the head

Indeterminable:

None

**EYE HEIGHT**

**Reference:** WASP

†Subject back on table as far as possible, until backs of knees hit table edge. Legs dangle freely. Trunk as erect as possible; head in eye-ear horizontal† height from seat to pupil of eye.

**Eye Height—WASP (Continued)**

**Women Pilots**

N: 443  
X: 76.09 cm; 30.0 in  
SD: NDA  
V%: NDA

**Flying Nurses**

151  
74.35 cm; 29.3 in  
NDA  
NDA

**Similar Dimensions:**

**Equivalent:**

FAA: *Sitting Eye Height*  
FRANCE '65: *Hauteur yeux-siège*

**Not Equivalent:**

ARMY '66: *Eye Height, Sitting* - to the inner corner . . . of the right eye  
ARMY AVIATORS: *Eye Height, Sitting* - to the inner corner of the eye  
FAA: *Eye Height* - to the floor  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)* - to the inner corner of the eye  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)* - to the inner corner of the right eye  
NAVY RECRUITS: *Eye Height, Sitting* - to the inner corner . . . of the right eye  
THAI: *Eye Height, Sitting* - to level of inner corner of right eye  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)* - to the inner corner of the eye  
USMC: *Eye Height, Sitting* - to the inner corner . . . of the right eye  
USN: *Eye Height Sitting* - to the inner corner of the right eye  
VIETNAM: *Eye Height, Sitting* - to level of inner corner of right eye

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING**

**Reference:** ARMY '66

### ***Eye Height, Sitting—ARMY '66 (Continued)***

Subject sits erect, with head level, and with his feet resting on a surface adjusted so that his knees are bent at right angles. Eye height is measured as the vertical distance from the sitting surface to the inner corner (internal canthus) of the right eye. An anthropometer is used.

N: 6682  
 $\bar{X}$ : 78.71 cm; 30.99 in  
SD: 3.58 cm; 1.41 in  
V%: 4.53

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height, Sitting*  
VIETNAM: *Eye Height, Sitting*

##### **Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

##### **Indeterminable:**

None

#### **See Also:**

*Eye Height (Internal Canthus Height)*

## **EYE HEIGHT, SITTING**

#### **Reference: ARMY AVIATORS**

The vertical distance from the seat surface to the inner corner of the eye, taken with the subject seated.

***Eye Height, Sitting—ARMY AVIATORS (Continued)***

N: 500  
X: 78.49 cm; 30.90 in  
SD: 3.25 cm; 1.28 in  
V%: [4.14]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height, Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING  
(INTERNAL CANTHUS HEIGHT, SITTING)**

**Reference: KOREA**

Subject sits erect, looking directly forward (head oriented in the Frankfort plane), his feet resting on a surface so that the knees are bent at about right angles. Using the anthropometer, measure the vertical distance from the sitting surface to the inner corner of the eye.

***Eye Height, Sitting (Internal Canthus Height, Sitting)—KOREA (Continued)***

N: 264  
X: 79.20 cm; 31.19 in  
SD: 3.17 cm; 1.25 in  
V%: 4.01

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height, Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING  
(INTERNAL CANTHUS HEIGHT, SITTING)**

**Reference: NATO**

Subject sits erect, his head in the Frankfort plane, his feet resting on a surface adjusted so that the knees are bent at about right angles. Using the anthropometer, measure the vertical distance from the sitting surface to the inner corner of the right eye.

**Eye Height, Sitting (Internal Canthus Height, Sitting)—NATO (Continued)**

<b>Turkey</b>	<b>Greece</b>	<b>Italy</b>
N: 915	1064	1358
$\bar{X}$ : 77.51 cm; 30.40 in	78.05 cm; 30.73 in	77.98 cm; 30.70 in
SD: 3.11 cm; 1.23 in	2.92 cm; 1.15 in	3.01 cm; 1.19 in
V%: 4.01	3.73	3.86

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height, Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING**

**Reference: NAVY RECRUITS**

Subject sits erect, with head level, and with his feet resting on a surface adjusted so that his knees are bent at right angles. Eye height is measured as the vertical distance from the sitting surface to the inner corner (internal canthus) of the right eye. An anthropometer is used.

***Eye Height, Sitting—NAVY RECRUITS (Continued)***

N: 4095  
 $\bar{X}$ : 79.88 cm; 31.45 in  
SD: 3.18 cm; 1.25 in  
V%: 3.96

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING**

**Reference: THAI**

†Subject sitting erect on table or bench† Measured as distance from table surface to level of inner corner of right eye (right inner canthus).

N: 2950  
 $\bar{X}$ : 74.7 cm; 29.4 in  
SD: 3.2 cm; 1.3 in  
V%: 4.3

***Eye Height, Sitting—THAI (Continued)***

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height, Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING  
(INTERNAL CANTHUS HEIGHT, SITTING)**

**Reference: USAF '50**

Subject sits erect, looking directly forward (head oriented in the Frankfort plane), his feet resting on a surface so that the knees are bent at about right angles. Using the anthropometer, measure the vertical distance from the sitting surface to the inner corner of the eye.

N: 4061  
 $\bar{X}$ : 79.94 cm; 31.47 in  
SD: 3.22 cm; 1.27 in  
V%: 4.03

**Similar Dimensions:**

**Eye Height, Sitting (Internal Canthus Height, Sitting)—USAF -50 (Continued)**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USMC: *Eye Height, Sitting*  
USN: *Eye Height Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING**

**Reference: USMC**

Subject sits erect, with head level, and with his feet resting on a surface adjusted so that his knees are bent at right angles. Eye height is measured as the vertical distance from the sitting surface to the inner corner (internal canthus) of the right eye. An anthropometer is used.

N: 2008  
 $\bar{X}$ : 78.64 cm; 30.96 in  
SD: 3.33 cm; 1.31 in  
V%: 4.25

**Similar Dimensions:**

**Equivalent:**

**Eye Height, Sitting—USMC (Continued)**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USN: *Eye Height Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT SITTING**

**Reference: USN**

Subject sits erect, his head in the Frankfort plane, his feet resting on a surface adjusted so that the knees are bent at about right angles. Using the anthropometer, measure the vertical distance from the sitting surface to the inner corner of the right eye.

N: 1549  
 $\bar{X}$ : 80.18 cm; 31.57 in  
SD: 3.01 cm; 1.18 in  
V%: 3.75

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*

**Eye Height, Sitting—USN (Continued)**

KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*  
VIETNAM: *Eye Height, Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height - from the right pupil*  
FRANCE '65: *Hauteur yeux-siège - [the plane of the pupil]*  
WASP: *Eye Height - to pupil of eye*

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE HEIGHT, SITTING**

**Reference: VIETNAM**

†Subject sitting erect on table or bench† Measured as distance from table surface to level of inner corner of right eye (right inner canthus).

N: 2128  
 $\bar{X}$ : 73.1 cm; 28.3 in  
SD: 3.2 cm; 1.3 in  
V%: 4.4

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Eye Height, Sitting*  
ARMY AVIATORS: *Eye Height, Sitting*  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
NAVY RECRUITS: *Eye Height, Sitting*  
THAI: *Eye Height, Sitting*  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*  
USMC: *Eye Height, Sitting*

***Eye Height, Sitting—VIETNAM (Continued)***

**USN:** *Eye Height Sitting*

**Not Equivalent:**

FAA: *Sitting Eye Height* - from the right pupil

FRANCE '65: *Hauteur yeux-siège* - [the plane of the pupil]

WASP: *Eye Height* - to pupil of eye

**Indeterminable:**

None

**See Also:**

*Eye Height (Internal Canthus Height)*

**EYE TO THE TOP OF THE HEAD**

**Reference:** INDIA

By the help of improvised measuring scale, height from the lable of the outer canthus of left eye to the top of the head is measured.

N: 691

$\bar{X}$ : 10.96 cm; 4.31 in

SD: 1.00 cm; 0.39 in

V%: [9.12]

**Similar Dimensions:**

**Equivalent:**

NATO: *External Canthus-to-Vertex Height*

**Not Equivalent:**

ARMY ARMORED: *Eye Height* - pupil to the top of the head

**Indeterminable:**

None

**See Also:**

*External Canthus-to-Wall*

## FACE BREADTH

### Reference: ARMY AVIATORS

The horizontal distance between the cheek bones (zygomatic arches).

N: 500  
 $\bar{X}$ : 14.14 cm; 5.57 in  
SD: 0.51 cm; 0.20 in  
V%: [3.61]

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

#### Not Equivalent:

None

#### Indeterminable:

None

## FACE BREADTH

### Reference: HRDLICKA

**Face Breadth—HRDLICKA (Continued)**

The maximum bizygomatic diameter or greatest facial breadth.

No Data Available

**Similar Dimensions:**

Equivalent:

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogendbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

Not Equivalent:

None

Indeterminable:

None

**FACE BREADTH**

**Reference: THAI**

Measured as maximum breadth of face between outermost bulges of cheek bones (zygomatic arches).

**Face Breadth—THAI (Continued)**

N: 2950  
 $\bar{X}$ : 13.1 cm; 5.2 in  
SD: 0.7 cm; 0.3 in  
V%: 5.3

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

**Not Equivalent:**

None

**Indeterminable:**

None

**FACE BREADTH**

**Reference: VIETNAM**

Measured as maximum breadth of face between outermost bulges of cheek bones (zygomatic arches).

**Face Breadth—VIETNAM (Continued)**

N: 2127  
 $\bar{X}$ : 12.8 cm; 5.0 in  
SD: 0.6 cm; 0.2 in  
V%: 4.7

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Face Breadth (Bizygomatic Breadth)*  
ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
WAC: *Bizygomatic*

**Not Equivalent:**

None

**Indeterminable:**

None

**FACE BREADTH (BIZYGOMATIC BREADTH)**

**Reference: ARMY '66**

Subject sits erect, with head level. The maximum horizontal breadth of the face is measured between the lateral projections of the cheek bones (zygomatic arches). Spreading calipers are used.

**Face Breadth (Bizygomatic Breadth)—ARMY '66 (Continued)**

N: 6681  
 $\bar{X}$ : 13.99 cm; 5.51 in  
SD: 0.55 cm; 0.22 in  
V%: 4.00

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Face Breadth*  
ARMY QM: *Bizygomatic*  
COMAS: *Bizygomatic Breadth*  
FRANCE '65: *Largeur bizygomatique*  
HRDLICKA: *Face Breadth*  
JAPAN: *Bizygomatic Diameter*  
KOREA: *Bizygomatic Diameter*  
MARTIN: *Jochbogenbreite*  
MONACO: *Diamètre bizygomatique*  
MONTAGU: *Bizygomatic Breadth*  
NATO: *Bizygomatic Diameter*  
NAVY RECRUITS: *Face Breadth (Bizygomatic Breadth)*  
NORWAY: *Bizygomatic Diameter*  
THAI: *Face Breadth*  
USAF '50: *Bizygomatic Diameter*  
USMC: *Face Breadth (Bizygomatic Breadth)*  
USN: *Bizygomatic Diameter*  
VIETNAM: *Face Breadth*  
WAC: *Bizygomatic*

**Not Equivalent:**

None

**Indeterminable:**

None

**FACE BREADTH (BIZYGOMATIC BREADTH)**

**Reference: NAVY RECRUITS**

Subject sits erect, with head level. The maximum horizontal breadth of the face is measured between the lateral projections of the cheek bones (zygomatic arches). Spreading calipers are used.

**Face Breadth (Bizygomatic Breadth)—NAVY RECRUITS (Continued)**

N: 4085  
X: 13.94 cm; 5.49 in  
SD: 0.55 cm; 0.22 in  
V%: 3.95

**Similar Dimensions:**

**Equivalent:**

ARMY '68: Face Breadth (Bizygomatic Breadth)  
ARMY AVIATORS: Face Breadth  
ARMY QM: Bizygomatic  
COMAS: Bizygomatic Breadth  
FRANCE '65: Largeur bizygomatique  
HRDLICKA: Face Breadth  
JAPAN: Bizygomatic Diameter  
KOREA: Bizygomatic Diameter  
MARTIN: Jochbogenbreite  
MONACO: Diamètre bizygomatique  
MONTAGU: Bizygomatic Breadth  
NATO: Bizygomatic Diameter  
NORWAY: Bizygomatic Diameter  
THAI: Face Breadth  
USAF '50: Bizygomatic Diameter  
USMC: Face Breadth (Bizygomatic Breadth)  
USN: Bizygomatic Diameter  
VIETNAM: Face Breadth  
WAC: Bizygomatic

**Not Equivalent:**

None

**Indeterminable:**

None

**FACE BREADTH (BIZYGOMATIC BREADTH)**

**Reference: USMC**

Subject sits erect, with head level. The maximum horizontal breadth of the face is measured between the lateral projections of the cheek bones (zygomatic arches). Spreading calipers are used.

**Face Breadth (Bizygomatic Breadth)—USMC (Continued)**

N: 2008  
 $\bar{X}$ : 13.97 cm; 5.50 in  
SD: 0.53 cm; 0.21 in  
V%: 3.86

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Face Breadth (Bizygomatic Breadth)  
ARMY AVIATORS: Face Breadth  
ARMY QM: Bizygomatic  
COMAS: Bizygomatic Breadth  
FRANCE '65: Largeur bizygomatique  
HRDLICKA: Face Breadth  
JAPAN: Bizygomatic Diameter  
KOREA: Bizygomatic Diameter  
MARTIN: Jochbogenbreite  
MONACO: Diamètre bizygomatique  
MONTAGU: Bizygomatic Breadth  
NATO: Bizygomatic Diameter  
NAVY RECRUITS: Face Breadth (Bizygomatic Breadth)  
NORWAY: Bizygomatic Diameter  
THAI: Face Breadth  
USAF '50: Bizygomatic Diameter  
USN: Bizygomatic Diameter  
VIETNAM: Face Breadth  
WAC: Bizygomatic

**Not Equivalent:**

None

**Indeterminable:**

None

**FACE HEIGHT (LENGTH), MORPHOLOGICAL**

**Reference: HRDLICKA**

The menton †the inferior point of the mandible in the median plane†-nasion †the point where . . . the nasal suture meets the naso-frontal suture† diameter.

No Data Available

**Face Height (Length, Morphological—HRDLICKA (Continued))**

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Face Length*  
COMAS: *Morphological Facial Height*  
FRANCE '65: *Hauteur de la face*  
MARTIN: *Morphologische Gesichtshöhe*  
MONACO: *Diamètre naso-mentonnier*  
NORWAY: *Height of Face*  
WAC: *Face Length*

**Not Equivalent:**

ARMY '66: *Face Length (Menton-Nasal Root Length) - to the nasal root depression*  
MONTAGU: *Morphological Facial Height - point at which a horizontal tangent to the highest points on the superior palpebral sulci intersects the midsagittal plane*  
NATO: *Menton-Nasal Root Depression Length - nasal root depression*  
NAVY RECRUITS: *Face Length (Menton-Nasal Root Length) - to the nasal root depression*  
USMC: *Face Length (Menton-Nasal Root Length - to the nasal root depression*  
THAI: *Face Length - depression of nose between eyes*  
VIETNAM: *Face Length - depression of nose between eyes*

**Indeterminable:**

ARMY AVIATORS: *Face Length - [ landmark on chin not specified ]*  
FRANCE '55: *Distance racine du nez Fossette mentonnière - [ landmarks not specified ]*

**FACE HEIGHT, PHYSIOGOMIC**

**Reference: HRDLICKA**

The menton [the inferior point of the mandible in the median plane] - crinion  
[a point on the forehead, where the normal arc of the hair insertion intersects  
the midline] diameter.

No Data Available

**Similar Dimensions:**

**Equivalent:**

**Face Height, Physiognomic—HRDLICKA (Continued)**

MARTIN: *Physiognomische Gesichtshöhe*

MONACO: *Hauteur totale du visage*

MONTAGU: *Physiognomic Facial Length*

**Not Equivalent:**

COMAS: *Physiognomic Facial Height* - from trichion to gnathion *† the lowest point on the lower border of the chin*

KOREA: *Menton-Crinion Length* - from the tip at the bottom surface of the chin (Menton)

USAF '50: *Menton-Crinion Length* - from the tip at the bottom surface of the chin (Menton)

**Indeterminable:**

None

**See Also:**

*Morphological Facial Height*

*Morphological Upper Face Height*

**FACE LENGTH (MENTON-NASAL ROOT LENGTH)**

**Reference: ARMY '66**

Subject sits erect, with head level. Face length is measured as the vertical distance from the tip of the chin (menton) to the nasal root depression between the eyes. Sliding calipers are used.

N: 6681

$\bar{X}$ : 12.03 cm; 4.74 in

SD: 0.66 cm; 0.26 in

V%: 5.50

**Similar Dimensions:**

**Equivalent:**

NATO: *Menton-Nasal Root Depression Length*

NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)*

THAI: *Face Length*

USMC: *Face Length (Menton-Nasal Root Length)*

VIETNAM: *Face Length*

**Face Length (Menton-Nasal Root Length)—ARMY '66 (Continued)**

**Not Equivalent:**

- ARMY QM: *Face Length* - the most inferior point on the margin of the mandibular symphysis  
COMAS: *Morphological Facial Height* - where the inter-nasal suture meets the naso-frontal suture  
FRANCE '65: *Hauteur de la face* - [fronto-nasal articulation]  
HRDLICKA: *Face Height (Length)*, *Morphological* - the inferior point of the mandible  
MARTIN: *Morphologische Gesichtshöhe* - [the lowest point on the lower edge of the mandible]  
MONACO: *Diamètre naso-mentonnier* - [the inferior border of the lower jaw]  
MONTAGU: *Morphological Facial Height* - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane  
WAC: *Face Length* - from nasion . . . to gnathion

**Indeterminable:**

- ARMY AVIATORS: *Face Length* - [landmark on chin not specified]  
FRANCE '55: *Distance racine du nez-Fossette mentonnière* - [landmarks not specified]

**FACE LENGTH**

**Reference: ARMY AVIATORS**

The vertical distance between the root of the nose and the chin.

N: 500  
X: 11.86 cm; 4.67 in  
SD: 0.62 cm; 0.24 in  
V%: [5.31]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

None

**Face Length—ARMY AVIATORS (Continued)**

**Indeterminable:**

Reference dimension description does not specify exact position on chin.

ARMY '66: Face Length (Menton-Nasal Root Length)  
ARMY QM: Face Length  
COMAS: Morphological Facial Height  
FRANCE '55: Distance racine du nez-Fossette mentonnaire  
FRANCE '65: Hauteur de la face  
HRDLICKA: Face Height (Length), Morphological  
MARTIN: Morphologische Gesichtshoehe  
MONACO: Diamètre naso-mentonnier  
MONTAGU: Morphological Facial Height  
NATO: Menton-Nasal Root Depression Length  
NAVY RECRUITS: Face Length (Menton-Nasal Root Length)  
NORWAY: Height of Face  
USMC: Face Length (Menton-Nasal Root Length)  
THAI: Face Length  
VIETNAM: Face Length  
WAC: Face Length

**FACE LENGTH**

**Reference: ARMY QM**

Distance between nasion †the point at the root of the nose where the fronto-nasal suture crosses the midline† and menton †the most inferior point on the margin of the mandibular symphysis at the chin†. Pressure is applied at menton.

N: 24494  
X: 12.50 cm; 4.92 in  
SD: 0.71 cm; 0.28 in  
V%: 5.68

**Similar Dimensions:**

COMAS: Morphological Facial Height  
FRANCE '65: Hauteur de la face  
HRDLICKA: Face Height (Length), Morphological  
MARTIN: Morphologische Gesichtshoehe  
MONACO: Diamètre naso-mentonnier  
NORWAY: Height of Face  
WAC: Face Length

**Face Length—ARMY QM (Continued)**

**Not Equivalent:**

ARMY '66: *Face Length (Menton-Nasal Root Length)* - to the nasal root depression

MONTAGU: *Morphological Facial Height* - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the midsagittal plane

NATO: *Menton-Nasal Root Depression Length* - nasal root depression

NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)* - to the nasal root depression

USMC: *Face Length (Menton-Nasal Root Length)* - to the nasal root depression

THAI: *Face Length* - depression of nose between eyes

VIETNAM: *Face Length* - depression of nose between eyes

**Indeterminable:**

ARMY AVIATORS: *Face Length* - [ landmark on chin not specified ]

FRANCE '55: *Distance racine du nez-Fossette mentonnière* - [ landmarks are not specified ]

**FACE LENGTH (MENTON-NASAL ROOT LENGTH)**

**Reference: NAVY RECRUITS**

Subject sits erect, with head level. Face length is measured as the vertical distance from the tip of the chin (menton) to the nasal root depression between the eyes. Sliding calipers are used.

N: 4095

$\bar{X}$ : 11.93 cm; 4.70 in

SD: 0.60 cm; 0.24 in

V%: 5.05

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Face Length (Menton-Nasal Root Length)*

NATO: *Menton-Nasal Root Depression Length*

THAI: *Face Length*

USMC: *Face Length (Menton-Nasal Root Length)*

VIETNAM: *Face Length*

**Not Equivalent:**

**Face Length (Menton-Nasal Root Length)—NAVY RECRUITS (Continued)**

ARMY QM: Face Length - the most inferior point on the margin of the mandibular symphysis  
COMAS: Morphological Facial Height - where the inter-nasal suture meets the naso-frontal suture  
FRANCE '65: Hauteur de la face - [fronto-nasal articulation]  
HRDLICKA: Face Height (Length), Morphological - the inferior point of the mandible  
MARTIN: Morphologische Gesichtshöhe - [the lowest point on the lower edge of the mandible]  
MONACO: Diamètre naso-mentonnier - [the inferior border of the lower jaw]  
MONTAGU: Morphological Facial Height - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane  
WAC: Face Length - from nasion . . . to gnathion

**Indeterminable:**

ARMY AVIATORS: Face Length - [landmark on chin not specified]  
FRANCE '55: Distance racine du nez-Fossette mentonnière - [landmarks not specified]

**FACE LENGTH**

**Reference: THAI**

Measured as distance from depression of nose between eyes (nasion) to tip of chin.

N: 2950  
X: 11.4 cm; 4.5 in  
SD: 0.6 cm; 0.2 in  
V%: 5.3

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Face Length (Menton-Nasal Root Length)  
NATO: Menton-Nasal Root Depression Length  
NAVY RECRUITS: Face Length (Menton-Nasal Root Length)  
USMC: Face Length (Menton-Nasal Root Length)  
VIETNAM: Face Length

**Face Length—THAI (Continued)**

**Not Equivalent:**

- ARMY QM: *Face Length* - the most inferior point on the margin of the mandibular symphysis  
COMAS: *Morphological Facial Height* - where the inter-nasal suture meets the naso-frontal suture  
FRANCE '65: *Hauteur de la face* - [fronto-nasal articulation]  
HRDLICKA: *Face Height (Length)*, *Morphological* - the inferior point of the mandible  
MARTIN: *Morphologische Gesichtshöhe* - [the lowest point on the lower edge of the mandible]  
MONACO: *Diamètre naso-mentonnier* - [the inferior border of the lower jaw]  
MONTAGU: *Morphological Facial Height* - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane  
WAC: *Face Length* - from nasion . . . to gnathion

**Indeterminable:**

- ARMY AVIATORS: *Face Length* - [landmark on chin not specified]  
FRANCE '55: *Distance racine du nez-Fossette mentonnière* - [landmarks not specified]

**FACE LENGTH (MENTON-NASAL ROOT LENGTH)**

**Reference: USMC**

Subject sits erect, with head level. Face length is measured as the vertical distance from the tip of the chin (menton) to the nasal root depression between the eyes. Sliding calipers are used.

N: 2008  
X: 12.01 cm; 4.73 in  
SD: 0.63 cm; 0.25 in  
V%: 5.39

**Similar Dimensions:**

**Equivalent:**

- ARMY '66: *Face Length (Menton-Nasal Root Length)*  
NATO: *Menton-Nasal Root Depression Length*  
NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)*  
THAI: *Face Length*

**Face Length (Menton-Nasal Root Length)—USMC (Continued)**

**VIETNAM: Face Length**

**Not Equivalent:**

- ARMY QM: *Face Length* - the most inferior point on the margin of the mandibular symphysis  
COMAS: *Morphological Facial Height* - where the inter-nasal suture meets the naso-frontal suture  
FRANCE '65: *Hauteur de la face* - [fronto-nasal articulation]  
HRDLICKA: *Face Height (Length)*, *Morphological* - the inferior point of the mandible  
MARTIN: *Morphologische Gesichtshöhe* - [the lowest point on the lower edge of the mandible]  
MONACO: *Diamètre naso-mentonnier* - [the inferior border of the lower jaw]  
MONTAGU: *Morphological Facial Height* - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane  
WAC: *Face Length* - from nasion . . . to gnathion

**Indeterminable:**

- ARMY AVIATORS: *Face Length* - [landmark on chin not specified]  
FRANCE '55: *Distance racine du nez-Fossette mentonnière* - [landmarks not specified]

**FACE LENGTH**

**Reference: VIETNAM**

Measured as distance from depression of nose between eyes (nasion) to tip of chin (menton).

N: 2128  
X: 11.3 cm; 4.4 in  
SD: 0.6 cm; 0.2 in  
V%: 5.3

**Equivalent:**

- ARMY '66: *Face Length (Menton-Nasal Root Length)*  
NATO: *Menton-Nasal Root Depression Length*  
NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)*  
THAI: *Face Length*

**Face Length—VIETNAM (Continued)**

**USMC: Face Length (Menton-Nasal Root Length)**

**Not Equivalent:**

**ARMY QM: Face Length** - the most inferior point on the margin of the mandibular symphysis

**COMAS: Morphological Facial Height** - where the inter-nasal suture meets the naso-frontal suture

**FRANCE '65: Hauteur de la face** - [fronto-nasal articulation]

**HRDLICKA: Face Height (Length), Morphological** - the inferior point of the mandible

**MARTIN: Morphologische Gesichtshöhe** - [the lowest point on the lower edge of the mandible]

**MONACO: Diamètre naso-mentonnier** - [the inferior border of the lower jaw]

**MONTAGU: Morphological Facial Height** - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane

**WAC: Face Length** - from nasion . . . to gnathion

**Indeterminable:**

**ARMY AVIATORS: Face Length** - [landmark on chin not specified]

**FRANCE '55: Distance racine du nez-Fossette mentonnière** - [landmarks not specified]

**FACE LENGTH**

**Reference: WAC**

†Subject sat erect with eyes on an imaginary horizon† Subject asked to put her molars together. Measurement taken from nasion †the point where the inter-nasal suture meets the naso-frontal suture† to gnathion †the most inferior point on the anterior portion of the mandible†. Pressure applied to gnathion.

N: 8452

X: 11.12 cm; 4.38 in

SD: 0.67 cm; 0.26 in

V%: [6.03]

**Similar Dimensions:**

**Equivalent:**

**Face Length—WAC (Continued)**

ARMY QM: *Face Length*  
COMAS: *Morphological Facial Height*  
FRANCE '65: *Hauteur de la face*  
HRDLICKA: *Face Height (Length), Morphological*  
MARTIN: *Morphologische Gesichtshöhe*  
MONACO: *Diamètre naso-mentonnier*  
NORWAY: *Height of Face*

**Not Equivalent:**

ARMY '66: *Face Length (Menton-Nasal Root Length)* - to the nasal root depression  
MONTAGU: *Morphological Facial Height* - point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane  
NATO: *Menton-Nasal Root Depression Length* - nasal root depression  
NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)* - to the nasal root depression  
USMC: *Face Length (Menton-Nasal Root Length)* - to the nasal root depression  
THAI: *Face Length* - depression of nose between eyes  
VIETNAM: *Face Length* - depression of nose between eyes

**Indeterminable:**

ARMY AVIATORS: *Face Length* - [ landmark on chin not specified ]  
FRANCE '55: *Distance racine du nez-Fossette mentonnière* - [ landmarks not specified ]

**FEMUR CONDYLE BREADTH**

**Reference: NORWAY**

[M]easured on the right leg with a spreading caliper, the leg in approximately 45-degree flexion of the knee joint. Measure the greatest distance between the most projecting points of the medial and lateral condyles.

N: 5765  
 $\bar{X}$ : 9.89 cm; 3.89 in  
SD: 0.45 cm; 0.18 in  
V%: 4.50

**Similar Dimensions:**

None

*Femur Condyle Breadth—NORWAY (Continued)*

**See Also:**

*Bi-Epicondylar, Femoral*

**FEMUR LENGTH**

**Reference: FAA**

With the subject standing, the distance between the superior margin of the greater trochanter and the most distal point of the lateral femoral condyle.

N: 681  
X: 40.82 cm; 18.44 in  
SD: 2.31 cm; 0.91 in  
V%: 4.93

**Similar Dimensions:**

None

**See Also:**

*Buttock-Knee*

**FINGER DIAMETER III**

**Reference: KOREA**

Subject's right middle finger is inserted into a series of graduated holes. Record the diameter of the hole which most closely approximates the maximum diameter of the finger.

N: 264  
X: 1.99 cm; 0.78 in  
SD: 0.09 cm; 0.04 in  
V%: 0.49 [Sic] [4.52]

**Similar Dimensions:**

**Equivalent:**

HANDS-FEMALE: *Breadth [of] Proximal Interphalangeal Joint-Digit 3*  
HANDS-MALE: *Breadth [of] Proximal Interphalangeal Joint-Digit 3*

***Finger Diameter III—KOREA (Continued)***

**NATO: *Finger Diameter III***

**USAF '50: *Finger Diameter III***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

**FINGER DIAMETER III**

**Reference: NATO**

Subject's right middle finger is inserted into a series of graduated holes in a plastic sheet. Record the diameter of the hole which most closely approximates the maximum diameter of the finger.

<b><i>Turkey</i></b>	<b><i>Greece</i></b>	<b><i>Italy</i></b>
<b>N: 595</b>	<b>1084</b>	<b>1358</b>
<b><math>\bar{X}</math>: 2.14 cm; 0.84 in</b>	<b>2.18 cm; 0.86 in</b>	<b>2.18 cm; 0.86 in</b>
<b>SD: 0.12 cm; 0.05 in</b>	<b>0.11 cm; 0.04 in</b>	<b>0.12 cm; 0.05 in</b>
<b>V%: 12.02</b>	<b>10.83</b>	<b>11.87</b>

**Similar Dimensions:**

**Equivalent:**

**HANDS-FEMALE: *Breadth [of] Proximal Interphalangeal Joint-Digit 3***

**HANDS-MALE: *Breadth [of] Proximal Interphalangeal Joint-Digit 3***

**KOREA: *Finger Diameter III***

**USAF '50: *Finger Diameter III***

**Not Equivalent:**

**None**

**Indeterminable:**

**None**

## FINGER DIAMETER III

**Reference:** USAF 50

Subject's right middle finger is inserted into a series of graduated holes. Record the diameter of the hole which most closely approximates the maximum diameter of the finger.

N: 4063  
X: 2.18 cm; 0.86 in  
SD: 0.12 cm; 0.05 in  
V%: 5.48

### Similar Dimensions:

#### Equivalent:

HANDS-FEMALE: *Breadth [of] Proximal Interphalangeal Joint-Digit 3*  
HANDS-MALE: *Breadth [of] Proximal Interphalangeal Joint-Digit 3*  
KOREA: *Finger Diameter III*  
NATO: *Finger Diameter III*

#### Not Equivalent:

None

#### Indeterminable:

None

## FINGER REACH

**Reference:** HRDLIČKA

The horizontal distance from tip of the medius of 1 hand to tip of the medius of the other hand, in maximum horizontal extension of the arms. [Taken with subject standing against a vertical measuring plane]

No Data Available.

### Similar Dimensions:

#### Equivalent:

AAF: *Total Span*  
ARMY ARMORED: *Total Span*

***Finger Reach—HRDLICKA (Continued)***

FAA: Arm Span  
FRANCE '65: Grande envergure  
GENEVA: Span  
INDIA: Total Span  
KOREA: Span  
MARTIN: Spannweite der Arme  
MONTAGU: Span  
NORWAY: Arm Span  
TUFTS: Total Span  
USAF '50: Span

Not Equivalent:

None

Indeterminable:

None

**See Also:**

*Span Akimbo*

**FINGERTIP SPREAD; DIGITS 2-3**

**Reference: HAND**

Subject's right hand is extended, palm down. Subject maximally spreads digits 2 and 3. With sliding caliper, measure the distance in the region of the fingernail from the thenar side of digit 2 to the hypothenar side of digit 3.

N: 27  
X: 9.27 cm; 3.65 in  
SD: 1.57 cm; 0.62 in  
V%: 16.89

**Similar Dimensions:**

None

**FINGERTIP SPREAD; DIGITS 2-4**

**Reference: HAND**

***Fingertip Spread; Digits 2-4—HAND (Continued)***

Subject's right hand is extended, palm down. Subject maximally spreads digits 2 and 4. With sliding caliper, measure the distance in the region of the fingernail from the thenar side of digit 2 to the hypothenar side of digit 4.

N: 27  
X: 12.33 cm; 4.83 in  
SD: 1.63 cm; 0.64 in  
V%: 13.21

**Similar Dimensions:**

None

**FINGERTIP SPREAD; DIGITS 2-5**

**Reference: HAND**

Subject's right hand is extended, palm down. Subject maximally spreads digits 2 and 5. With sliding caliper, measure the distance in the region of the fingernail from the thenar side of digit 2 to the hypothenar side of digit 5.

N: 27  
X: 16.31 cm; 6.35 in  
SD: 1.50 cm; 0.59 in  
V%: 9.32

**Similar Dimensions:**

None

**FIRST PHALANX III LENGTH**

**Reference: KOREA**

Subject's right hand is held in a fist. Using the sliding caliper, measure the length of the first segment of the middle finger across the surface of the third metacarpal and the second phalanx.

N: 264  
X: 6.50 cm; 2.56 in  
SD: 0.29 cm; 0.12 in  
V%: 4.51

***First Phalanx III Length—KOREA (Continued)***

**Similar Dimensions:**

Equivalent:

USAF '50: *First Phalanx III Length*

Not Equivalent:

None

Indeterminable:

None

**FIRST PHALANX III LENGTH**

**Reference: USAF '50**

Subject's right hand is held in a fist. Using the sliding caliper, measure the length of the first segment of the middle finger across the surfaces of the third metacarpal and the second phalanx.

N: 2955  
X: 6.78 cm; 2.67 in  
SD: 0.30 cm; 0.12 in  
V%: 4.38

**Similar Dimensions:**

Equivalent:

KOREA: *First Phalanx III Length*

Not Equivalent:

None

Indeterminable:

None

## FIST CIRCUMFERENCE

### Reference: HANDS-FEMALE

Subject makes a tight fist with her thumb tucked against the middle phalanges of digits II and III. With the tape passing over the metacarpal-phalangeal joints of all five digits, measure the circumference of the fist.

N: 211  
X: 24.83 cm; 9.78 in  
SD: 1.31 cm; 0.52 in  
V%: 5.27

### Similar Dimensions:

#### Equivalent:

HANDS-MALE: *Fist Circumference*

#### Not Equivalent:

KOREA: *Fist Circumference* - thumb lying across the end of the fist  
USAF '50: *Fist Circumference* - thumb lying across the end of the fist  
WAF RECRUITS: *Fist Circumference* - thumb lying on the outside [across end of fist]

#### Indeterminable:

None

## FIST CIRCUMFERENCE

### Reference: HANDS-MALE

Subject makes a tight fist with his thumb tucked against the middle phalanges of digits II and III. With the tape passing over the metacarpal-phalangeal joints of all five digits, measure the circumference of the fist.

N: 148  
X: 29.61 cm; 11.66 in  
SD: 1.35 cm; 0.53 in  
V%: 4.54

### Similar Dimensions:

#### Equivalent:

***Fist Circumference—HANDS-MALE (Continued)***

**HANDS-FEMALE: *Fist Circumference***

**Not Equivalent:**

KOREA: *Fist Circumference* - thumb lying across the end of the fist  
USAF '50: *Fist Circumference* - thumb lying across the end of the fist  
WAF RECRUITS: *Fist Circumference* - thumb lying on the outside [across end of fist]

**Indeterminable:**

None

**FIST CIRCUMFERENCE**

**Reference: KOREA**

Subject makes a tight fist with his right hand, the thumb lying across the end of the fist. With the tape passing over the thumb and the knuckles (distal ends of the metacarpal bones), measure the circumference of the fist.

N: 264  
 $\bar{X}$ : 27.20 cm; 10.71 in  
SD: 1.19 cm; 0.47 in  
V%: 4.37

**Similar Dimensions:**

**Equivalent:**

USAF '50: *Fist Circumference*  
WAF RECRUITS: *Fist Circumference*

**Not Equivalent:**

HANDS-FEMALE: *Fist Circumference* - thumb tucked against the middle phalanges of digits II and III  
HANDS-MALE: *Fist Circumference* - thumb tucked against the middle phalanges of digits II and III

**Indeterminable:**

None

## FIST CIRCUMFERENCE

**Reference:** USAF '50

Subject makes a tight fist with his right hand, the thumb lying across the end of the fist. With the tape passing over the thumb and knuckles (distal ends of the metacarpal bones), measure the circumference of the fist.

N: 4053  
X: 29.36 cm; 11.56 in  
SD: 1.45 cm; 0.57 in  
V%: 4.94

### Similar Dimensions:

Equivalent:

KOREA: *Fist Circumference*  
WAF RECRUITS: *Fist Circumference*

Not Equivalent:

HANDS-FEMALE: *Fist Circumference* - thumb tucked against the middle phalanges of digits II and III  
HANDS-MALE: *Fist Circumference* - thumb tucked against the middle phalanges of digits II and III

Indeterminable:

None

## FIST CIRCUMFERENCE

**Reference:** WAF RECRUITS

The subject holds her right fist with the thumb lying on the outside. Measure the circumference with the tape passing over the distal ends of the metacarpal bones.

N: 851  
X: 25.08 cm; 9.87 in  
SD: 1.32 cm; 0.52 in  
V%: 5.27

### Similar Dimensions:

Equivalent:

*Fist Circumference—WAF RECRUITS (Continued)*

KOREA: *Fist Circumference*  
USAF '50: *Fist Circumference*

**Not Equivalent:**

HANDS-FEMALE: *Fist Circumference*—thumb tucked against the middle phalanges of digits II and III

HANDS-MALE: *Fist Circumference*—thumb tucked against the middle phalanges of digits II and III.

**Indeterminable:**

Ncne

**FOOT BREADTH**

**Reference: AAF**

Weight even on both feet. Left foot, maximum breadth with arms of anthropometer parallel to long axis of leg and foot. Light pressure.

<i>Cadets</i>	<i>Gunners</i>
N: 2959	584
Median: 9.83 cm; 3.9 in	9.71 cm; 3.8 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

ARMY ARMORED: *Foot Breadth*  
KOREA: *Foot Breadth*  
NATO: *Foot Breadth*  
USAF '50: *Foot Breadth*  
USN: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsals  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints

*Foot Breadth—AAF (Continued)*

FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]

MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]

MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal

MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint

NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

HRDLIČKA: *Foot Breadth*—[Distribution of body weight is not specified.]

THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

## FOOT BREADTH

**Reference: ARMY ARMORED**

Weight even on both feet. Left foot, maximum breadth with arms of anthropometer parallel to long axis of leg and foot. Light pressure.

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Breadth*

KOREA: *Foot Breadth*

NATO: *Foot Breadth*

USAF '50: *Foot Breadth*

USN: *Foot Breadth*

WAF RECRUITS: *Foot Width*

WASP: *Foot Breadth*

*Foot Breadth—ARMY ARMORED (Continued)*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints

FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale

FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints

FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints

FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]

MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]

MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal

MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint

NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

HRDLICKA: *Foot Breadth*—[Distribution of body weight is not specified.]

THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**FOOT BREADTH**

**Reference: ARMY AVIATORS**

The maximum width of the right foot.

*Foot Breadth—ARMY AVIATORS (Continued)*

N: 500  
 $\bar{X}$ : 10.13 cm; 3.99 in  
SD: 0.53 cm; 0.21 in  
V%: [5.26]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints

AUSTRALIA: *Foot Width*—across the ball of the foot

FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsals

FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints

FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints

FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]

MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsal of the weight supporting foot]

MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal

MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint

NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

In the reference dimension description, the orientation of the measuring instrument and the distribution of weight on the feet are not described.

AAF: *Foot Breadth*

ARMY ARMORED: *Foot Breadth*

HRDLICKA: *Foot Breadth*

KOREA: *Foot Breadth*

NATO: *Foot Breadth*

THAI: *Foot Breadth*

USAF '50: *Foot Breadth*

USN: *Foot Breadth*

*Foot Breadth—ARMY AVIATORS (Continued)*

VIETNAM: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**FOOT BREADTH**

**Reference: ARMY QM**

†Subject stands with feet about one foot apart and with weight evenly distributed†.  
Anthropometer held perpendicular to the antero-posterior axis of the foot. The measurement is taken as the maximum distance across the metatarsal-phalangeal joints.  
Firm contact.

N: 24466  
 $\bar{X}$ : 9.81 cm; 3.86 in  
SD: 0.63 cm; 0.25 in  
V%: [6.42]

**Similar Dimensions:**

Equivalent:

ARMY QM: *Foot Breadth*  
FOOT: *Foot Breadth (Horizontal)*

Not Equivalent:

AAF: *Foot Breadth*—maximum breadth  
ARMY ARMORED: *Foot Breadth*—maximum breadth  
ARMY AVIATORS: *Foot Breadth*—maximum width  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominence of the 1st and 5th metatarso-phalangeal joints  
HRDLIČKA: *Foot Breadth*—maximum breadth  
KOREA: *Foot Breadth*—widest part of the foot  
MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]  
MORANT: *Diagonal Foot Breadth*—chord . . . between points marked on the medial surface of the ball and on the lateral surface in the region of the fifth metatarso-phalangeal joint  
NATO: *Foot Breadth*—widest part of the foot  
THAI: *Foot Breadth*—maximum breadth of right foot  
USAF '50: *Foot Breadth*—widest part of the foot

*Foot Breadth—ARMY QM (Continued)*

USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAC: *Foot Breadth*—right foot placed on a stool  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

ARM. 66: *Ball of Foot Breadth*  
FRANCE '65: *Largeur du pied*  
NAVY RECRUITS: *Ball of Foot Breadth*  
USMC: *Ball of Foot Breadth*

In the following, the distribution of body weight on the feet and the orientation of the measuring instrument relative to the foot are not described.

AUSTRALIA: *Foot Width*  
FAA: *Foot Breadth*  
MONTAGU: *Foot Breadth*

**FOOT BREADTH**

**Reference: FAA**

Breadth of the foot as measured between the distal extremities of the first and fifth metatarsale.

N: 312  
 $\bar{X}$ : 9.83 cm; 3.87 in  
SD: 0.53 cm; 0.21 in  
V%: 5.40

**Similar Dimensions:**

Equivalent:

None

*Foot Breadth—FAA (Continued)*

**Not Equivalent:**

AAF: *Foot Breadth*—maximum breadth  
ARMY ARMORED: *Foot Breadth*—maximum breadth  
ARMY AVIATORS: *Foot Breadth*—maximum width  
HRDLIČKA: *Foot Breadth*—maximum breadth of the foot  
KOREA: *Foot Breadth*—widest part of the foot  
NATO: *Foot Breadth*—widest part of the foot  
THAI: *Foot Breadth*—maximum breadth of right foot  
USAF '50: *Foot Breadth*—widest part of the foot  
USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

In the reference dimension description, the orientation of the measuring instrument relative to the foot is not described.

ARMY '66: *Ball of Foot Breadth*  
ARMY QM: *Foot Breadth*  
AUSTRALIA: *Foot Width*  
FOOT: *Foot Breadth (Diagonal)*  
FOOT: *Foot Breadth (Horizontal)*  
FRANCE '65: *Largeur du pied*  
MARTIN: *Breite des belasteten rechten Fusses*  
MONTAGU: *Foot Breadth*  
MORANT: *Diagonal Foot Breadth*  
NAVY RECRUITS: *Ball of Foot Breadth*  
USMC: *Ball of Foot Breadth*  
WAC: *Foot Breadth*

**See Also:**

*Breadth of Instep*

## FOOT BREADTH

Reference: HRDLIČKA

The maximum breadth of the foot, at right angles to the length †length . . . parallel with the long axis of the foot†.

No Data Available

Equivalent:

None

Not Equivalent:

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints

AUSTRALIA: *Foot Width*—across the ball of the foot

FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale

FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints

FOOT: *Foot Breadth (Horizontal)*—between . . . prominences of the 1st and 5th metatarso-phalangeal joints

FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]

MARTIN: *Breite des belasteten rechten Fusses*—[distance from the medial metatarsal to the lateral metatarsale]

MONTAGU: *Foot Breadth*—From . . . the head of the first metatarsal to the head of the fifth metatarsal

MORANT: *Diagonal Foot Breadth*—between . . . medial surface of the ball and . . . the region of the fifth metatarso-phalangeal joint

NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—across the metatarsal-phalangeal joint

Indeterminable:

The reference dimension description does not describe the distribution of body weight on the feet.

AAF: *Foot Breadth*

ARMY ARMORED: *Foot Breadth*

ARMY AVIATORS: *Foot Breadth*

KOREA: *Foot Breadth*

NATO: *Foot Breadth*

THAI: *Foot Breadth*

USAF '50: *Foot Breadth*

USN: *Foot Breadth*

*Foot Breadth—HRDLIČKA (Continued)*

VIETNAM: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**FOOT BREADTH**

**Reference: KOREA**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls and the long axis parallel to the side wall, his weight equally distributed on both feet. Using the scale on the base of the box, measure from the side wall to the widest part of the foot.

N: 264  
 $\bar{X}$ : 9.49 cm; 3.74 in  
SD: 0.46 cm; 0.18 in  
V%: 4.82

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Breadth*  
ARMY ARMORED: *Foot Breadth*  
NATO: *Foot Breadth*  
USAF '50: *Foot Breadth*  
USN: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsals  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
FOOT: *Foot Breadth (Horizontal)*—between the longitudinal plane defined by the prominences of the 1st and 5th metatarso-phalangeal joints  
FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]  
MARTIN: *Breite des belasteten rechten Fußes*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]

***Foot Breadth—KOREA (Continued)***

**MONTAGU:** *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal

**MORANT:** *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint

**NAVY RECRUITS:** *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints).

**USMC:** *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

**WAC:** *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

**ARMY AVIATORS:** *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

**AUSTRALIA:** *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

**HRDLIČKA:** *Foot Breadth*—[Distribution of body weight is not specified.]

**THAI:** *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**VIETNAM:** *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**FOOT BREADTH**

**Reference: MONTAGU**

(Anthropometer as Sliding Compass). From the medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal.

No Data Available

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

**AAF:** *Foot Breadth*—maximum breadth

**ARMY ARMORED:** *Foot Breadth*—maximum breadth

**ARMY AVIATORS:** *Foot Breadth*—maximum width

**HRDLIČKA:** *Foot Breadth*—maximum breadth of the foot

**KOREA:** *Foot Breadth*—widest part of the foot

*Foot Breadth—MONTAGU (Continued)*

NATO: *Foot Breadth*—widest part of the foot  
T. AI: *Foot Breadth*—maximum breadth of the right foot  
USAF '50: *Foot Breadth*—widest part of the foot  
USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

In the reference dimension description, the orientation of the measuring instrument relative to the foot is not described.

ARMY '66: *Ball of Foot Breadth*  
ARMY QM: *Foot Breadth*  
AUSTRALIA: *Foot Width*  
F.A.A: *Foot Breadth*  
FOOT: *Foot Breadth (Diagonal)*  
FOOT: *Foot Breadth (Horizontal)*  
FRANCE '65: *Largeur du pied*  
MARTIN: *Breite des belasteten rechten Fusses*  
MORANT: *Diagonal Foot Breadth*  
NAVY RECRUITS: *Ball of Foot Breadth*  
USMC: *Ball of Foot Breadth*  
WAC: *Foot Breadth*

**See Also:**

*Breadth of Instep*

**FOOT BREADTH**

**Reference: NATO**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls, its long axis parallel to the side wall, and his weight equally distributed on both feet. With the block touching the widest part of the foot, measure foot width from the side wall, using the scale on the floor of the box.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
X: 10.15 cm; 4.00 in	10.13 cm; 3.99 in	10.22 cm; 4.02 in
SD: 0.55 cm; 0.22 in	0.50 cm; 0.20 in	0.51 cm; 0.20 in
V $\frac{1}{4}$ : 5.42	4.94	4.94

*Foot Breadth—NATO (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Breadth*  
ARMY ARMORED: *Foot Breadth*  
KOREA: *Foot Breadth*  
USAF '60: *Foot Breadth*  
USN: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
FCOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints  
FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]  
MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]  
MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal  
MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint  
NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

*Foot Breadth—NATO (Continued)*

AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

HRDLICKA: *Foot Breadth*—[Distribution of body weight is not specified.]

THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

## FOOT BREADTH

**Reference: THAI**

Measured as maximum breadth of right foot. †Weight Equally Distributed on Both Feet†

N: 2950

$\bar{X}$ : 10.6 cm; 3.9 in

SD: 0.5 cm; 0.2 in

V%: 6.0

**Similar Dimensions:**

**Equivalent:**

VIETNAM: *Foot Breadth*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints

AUSTRALIA: *Foot Width*—across the ball of the foot

FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale

FOOT: *Foot Breadth (Diagonal)*—between the prominence of the 1st and 5th metatarso-phalangeal joints

FOOT: *Foot Breadth (Horizontal)*—between . . . the prominences of the 1st and 5th metatarso-phalangeal joints

FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]

MARTIN: *Breite des belasteten rechten Fusses*—[distance from the medial metatarsal to the lateral metatarsale]

MONTAGU: *Foot Breadth*—From . . . the head of the first metatarsal to . . . the head of the fifth metatarsal

MORANT: *Diagonal Foot Breadth*—between . . . medial surface of the ball and . . . the region of the fifth metatarso-phalangeal joint

NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

*Foot Breadth—THAI (Continued)*

**Indeterminable:**

In the reference dimension description, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Breadth*  
ARMY ARMORED: *Foot Breadth*  
ARMY AVIATORS: *Foot Breadth*  
HRDLICKA: *Foot Breadth*  
KOREA: *Foot Breadth*  
NATO: *Foot Breadth*  
USAF '50: *Foot Breadth*  
USN: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**See Also:**

*Breadth of Instep*

**FOOT BREADTH**

**Reference: USAF '50**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls and the long axis parallel to the side wall, his weight equally distributed on both feet. Using the scale on the base of the box, measure from the side wall to the widest part of the foot.

N: 4060  
 $\bar{X}$ : 9.65 cm; 3.80 in  
SD: 0.47 cm; 0.19 in  
V%: 4.90

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Breadth*  
ARMY ARMORED: *Foot Breadth*  
KOREA: *Foot Breadth*  
NATO: *Foot Breadth*  
USN: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

*Foot Breadth—USAF '50 (Continued)*

**Not Equivalent:**

- ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)
- ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints
- FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale
- FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints
- FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints
- FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]
- MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]
- MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal
- MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint
- NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)
- USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)
- WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

- ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]
- AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]
- HRDLICKA: *Foot Breadth*—[Distribution of body weight is not specified.]
- THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]
- VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**FOOT BREADTH**

**Reference: USN**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls, its long axis parallel to the side wall, and his weight equally distributed on

*Foot Breadth—USN (Continued)*

both feet. With the block touching the widest part of the foot, measure foot width from the side wall, using the scale on the floor of the box.

N: 1549  
 $\bar{X}$ : 10.24 cm; 4.03 in  
SD: 0.77 cm; 0.30 in  
V%: 7.54

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Breadth*  
ARMY ARMORED: *Foot Breadth*  
KOREA: *Foot Breadth*  
NATO: *Foot Breadth*  
USAF '50: *Foot Breadth*  
WAF RECRUITS: *Foot Width*  
WASP: *Foot Breadth*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints  
FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]  
MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]  
MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal  
MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint  
NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

*Foot Breadth—USN (Continued)*

Indeterminable:

ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]  
AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]  
HRDLIČKA: *Foot Breadth*—[Distribution of body weight is not specified.]  
THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]  
VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**FOOT BREADTH**

**Reference: VIETNAM**

Measured as maximum breadth of right foot. †Weight Equally Distributed on Both Feet†

N: 2124  
 $\bar{X}$ : 9.3 cm; 3.7 in  
SD: 0.6 cm; 0.2 in  
V%: 6.4

**Similar Dimensions:**

**Equivalent:**

THAI: *Foot Breadth*

**Not Equivalent:**

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
AUSTRALIA: *Foot Width*—across the ball of the foot  
FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominence of the 1st and 5th metatarso-phalangeal joints  
FOOT: *Foot Breadth (Horizontal)*—between . . . the prominences of the 1st and 5th metatarso-phalangeal joints  
FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]  
MARTIN: *Breite des belasteten rechten Fusses*—[distance from the medial metatarsal to the lateral metatarsale]  
MONTAGU: *Foot Breadth*—From . . . the head of the first metatarsal to . . . the head of the fifth metatarsal  
MORANT: *Diagonal Foot Breadth*—between . . . medial surface of the ball and . . . the region of the fifth metatarso-phalangeal joint

*Foot Breadth—VIETNAM (Continued)*

NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—across the metatarsal-phalangeal joints

**Indeterminable:**

In the reference dimension description, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Breadth*

ARMY ARMORED: *Foot Breadth*

ARMY AVIATORS: *Foot Breadth*

HRDLICKA: *Foot Breadth*

KOREA: *Foot Breadth*

NATO: *Foot Breadth*

USAF '50: *Foot Breadth*

USN: *Foot Breadth*

WAF RECRUITS: *Foot Width*

WASP: *Foot Breadth*

**See Also:**

*Breadth of Instep*

**FOOT BREADTH**

**Reference: WAC**

†Subject . . . stands on left foot with right foot placed on a stool directly to the front†. Anthropometer held parallel to the floor. Measurement taken as the maximum breadth across the metatarsal-phalangeal joints of the left foot.

N: 1945

$\bar{X}$ : 9.17 cm; 3.61 in

SD: 0.57 cm; 0.22 in

V%: [6.22]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Foot Breadth*—Weight even on both feet

ARMY '66: *Ball of Foot Breadth*—weight evenly distributed on both feet

*Foot Breadth—WAC (Continued)*

ARMY ARMORED: *Foot Breadth*—Weight even on both feet  
ARMY AVIATORS: *Foot Breadth*—maximum width  
ARMY QM: *Foot Breadth*—weight evenly distributed  
AUSTRALIA: *Foot Width*—greatest measurement across the ball of the foot  
FOOT: *Foot Breadth (Diagonal)*—body weight was equally distributed  
FOOT: *Foot Breadth (Horizontal)*—body weight was equally distributed  
FRANCE '65: *Largeur du pied*—[body weight distributed equally]  
HRDLICKA: *Foot Breadth*—[Illustration indicates that this dimension was measured perpendicular to the longitudinal axis of the foot.]  
KOREA: *Foot Breadth*—weight equally distributed on both feet  
MONTAGU: *Foot Breadth*—[Subject standing erect as for MONTAGU: *Foot Length*.]  
MORANT: *Diagonal Foot Breadth*—body weight roughly supported equally by the two feet  
NATO: *Foot Breadth*—weight equally distributed on both feet  
NAVY RECRUITS: *Ball of Foot Breadth*—weight evenly distributed on both feet  
THAI: *Foot Breadth*—Weight Equally Distributed on Both Feet  
USAF '50: *Foot Breadth*—weight equally distributed on both feet  
USMC: *Ball of Foot Breadth*—weight evenly distributed on both feet  
USN: *Foot Breadth*—weight equally distributed on both feet  
VIETNAM: *Foot Breadth*—Weight Equally Distributed on Both Feet  
WAF RECRUITS: *Foot Width*—weight equally distributed on both feet  
WASP: *Foot Breadth*—Weight even on both feet

Indeterminable:

FAA: *Foot Breadth*—[Distribution of body weight is not specified.]  
MARTIN: *Breite des belasteten rechten Fusses*—[In reference dimension description, the orientation of the anthropometer relative to the foot is not described.]

See Also:

*Breadth of Instep*

## FOOT LENGTH

Reference: WASP

Weight even on both feet. Left foot, maximum breadth with arms of anthropometer parallel to long axis of leg and foot. Light pressure.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 9.18 cm; 3.61 in	9.15 cm; 3.60 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

AAF: *Foot Breadth*  
 ARMY ARMORED: *Foot Breadth*  
 KOREA: *Foot Breadth*  
 NATO: *Foot Breadth*  
 USAF '50: *Foot Breadth*  
 USN: *Foot Breadth*  
 WAF RECRUITS: *Foot Width*

Not Equivalent:

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)  
 ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
 FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsals  
 FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
 FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints  
 FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]  
 MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsal of the weight supporting foot]  
 MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal  
 MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint  
 NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

*Foot Breadth—W/ASP (Continued)*

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

HRDLICKA: *Foot Breadth*—[Distribution of body weight is not specified.]

THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**FOOT BREADTH (DIAGONAL)**

Reference: FOOT

Breadth of diagonal between the prominence of the 1st and 5th metatarso-phalangeal joints. [from photograph] †body weight is equally distributed between the two feet.†

<i>White</i>	<i>Negro</i>
N: 5567	1195
$\bar{X}$ : 10.33 cm; 4.07 in	10.54 cm; 4.15 in
Est. SD: [0.49 cm; 0.19 in]	[0.49 cm; 0.19 in]
Est. V%: [4.74]	[4.65]

Similar Dimensions:

Equivalent:

MORANT: *Diagonal Foot Breadth*

Not Equivalent:

AAF: *Foot Breadth*—maximum breadth

ARMY '66: *Ball of Foot Breadth*—A foot measuring box is used

ARMY ARMORED: *Foot Breadth*—maximum breadth

ARMY AVIATORS: *Foot Breadth*—maximum width of the right foot

ARMY QM: *Foot Breadth*—Anthropometer held perpendicular to the antero-posterior axis of the foot

FOOT: *Foot Breadth (Horizontal)*—[anthropometer arms] parallel to the longitudinal axis.

*Foot Breadth (Diagonal)—FOOT (Continued)*

HRDLIČKA: *Foot Breadth*—maximum breadth of the foot  
KOREA: *Foot Breadth*—widest part of the foot  
MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]  
NATO: *Foot Breadth*—widest part of the foot  
NAVY RECRUITS: *Ball of Foot Breadth*—A foot measuring box is used  
THAI: *Foot Breadth*—maximum breadth  
USAF '50: *Foot Breadth*—the widest part of the foot  
USMC: *Ball of Foot Breadth*—A foot measuring box is used  
USN: *Foot Breadth*—the widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool  
WASP: *Foot Breadth*—maximum breadth

Indeterminable:

In the following, the orientation of the measuring instrument relative to the foot is not described.

AUSTRALIA: *Foot Width*  
FAA: *Foot Breadth*  
FRANCE '65: *Largeur du pied*  
MONTAGU: *Foot Breadth*

See Also:

*Breadth of Instep*

**FOOT BREADTH (HORIZONTAL)**

Reference: FOOT

Breadth along a rectilinear abscissa between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints, and parallel to the longitudinal axis. [from photograph] †body weight was equally distributed between the two feet.†

*Foot Breadth (Diagonal)—FOOT (Continued)*

<i>White</i>	<i>Negro</i>
N: 5561	1199
$\bar{X}$ : 9.80 cm; 3.88 in	9.92 cm; 3.88 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Foot Breadth*

**Not Equivalent:**

AAF: *Foot Breadth*—maximum breadth  
 ARMY ARMORED: *Foot Breadth*—maximum breadth  
 ARMY AVIATORS: *Foot Breadth*—maximum width  
 FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
 HRDLICKA: *Foot Breadth*—maximum breadth of the foot  
 KOREA: *Foot Breadth*—the widest part of the foot  
 MARTIN: *Breite des belasteten rechten Fusses*—[of the weight supporting foot]  
 MORANT: *Diagonal Foot Breadth*—chord . . . between points marked on the medial surface of the ball and on the lateral surface in the region of the fifth metatarso-phalangeal joint  
 NATO: *Foot Breadth*—widest part of the foot  
 THAI: *Foot Breadth*—maximum breadth of right foot  
 USAF '50: *Foot Breadth*—widest part of the foot  
 USN: *Foot Breadth*—widest part of the foot  
 VIETNAM: *Foot Breadth*—maximum breadth of right foot  
 WAC: *Foot Breadth*—right foot placed on a stool  
 WAF RECRUITS: *Foot Width*—widest part of the foot  
 WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

ARMY '66: *Ball of Foot Breadth*  
 FRANCE '65: *Largeur du pied*  
 NAVY RECRUITS: *Ball of Foot Breadth*  
 USMC: *Ball of Foot Breadth*

*Foot Breadth (Horizontal)—FOOT (Continued)*

In the following, the distribution of body weight on the feet and the orientation of the measuring instrument relative to the foot are not described.

**AUSTRALIA:** *Foot Width*

**FAA:** *Foot Breadth*

**MONTAGU:** *Foot Breadth*

**FOOT LENGTH**

**Reference:** AAF

Weight even on both feet. Left foot, maximum contact from heel to great toe (or second, if longer).

<i>Cadets</i>	<i>Gunners</i>
N: 2959	583
Median: 26.72 cm; 10.5 in	26.33 cm; 10.4 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

**ARMY ARMORED:** *Foot Length*

**TUFTS:** *Foot Length*

**WASP:** *Foot Length*

**Not Equivalent:**

**YRDLIČKA:** *Foot Length*—putting all his weight on the right limb

**MARTIN:** *Laenge des belasteten rechten Fusses*—[weight of the body is transmitted through the right foot]

**WAC:** *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

**ARMY '66:** *Foot Length*

*Foot Length—AAF (Continued)*

ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAF RECRUITS: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference:** ARMY '66

Subject stands erect, with his right foot in a foot measuring box, and with his weight evenly distributed on both feet. The maximum length of the right foot is measured from the back of the heel to the tip of the longest toe. A foot measuring box is used.

N: 6682  
 $\bar{X}$ : 26.77 cm; 10.54 in  
SD: 1.29 cm; 0.51 in  
V%: 4.86

**Similar Dimensions:**

**Equivalent:**

NAVY RECRUITS: *Foot Length*  
USMC: *Foot Length*

*Foot Length—ARMY '66 (Continued)*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses*—[weight of the body is transmitted through the right foot]  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

AAF: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference:** ARMY ARMORED

*Foot Length—ARMY ARMORED (Continued)*

Weight even on both feet. Left foot, maximum contact from heel to great toe (or second, if longer).

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Length*  
TUFTS: *Foot Length*  
WASP: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses*—[weight of the body is transmitted through the right foot]  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

ARMY '66: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*

*Foot Length—ARMY ARMORED (Continued)*

WAF RECRUITS: *Foot Length*

See Also:

*Instep Length*

**FOOT LENGTH**

Reference: **ARMY AVIATORS**

The distance from the heel to the end of the longest toe of the right foot.

N: 500  
X: 27.08 cm; 10.66 in  
SD: 1.24 cm; 0.49 in  
V%: [4.58]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

In the reference dimension description the distribution of body weight on the feet is not described.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
HRDLICKA: *Foot Length*  
KOREA: *Foot Length*  
MARTIN: *Laenge des belasteten rechten Fusses*

*Foot Length—ARMY AVIATORS (Continued)*

MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
TUFTS: *Foot Length*  
THAI: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAC: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: ARMY QM**

Subject stands with feet about one foot apart and with weight evenly distributed. With anthropometer parallel to long axis of the foot, measurement is taken between the most posterior point on the heel and most anterior point on the longest toe or toenail. Contact measurement.

N: 24372  
 $\bar{X}$ : 26.51 cm; 10.44 in  
SD: 1.21 cm; 0.48 in  
V%: [4.56]

**Similar Dimensions:**

**Equivalent:**

BULGARIA: *Length of the Foot*  
FOOT: *Foot Length*  
KOREA: *Foot Length*  
NATO: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
WAF RECRUITS: *Foot Length*

*Foot Length—ARMY QM (Continued)*

**Not Equivalent:**

**HRDLICKA:** *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb

**MARTIN:** *Luenge des belasteten rechten Fusses*—[weight of the body is transmitted through the right foot]

**MORANT:** *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball

**WAC:** *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

**AAF:** *Foot Length*

**ARMY '66:** *Foot Length*

**ARMY ARMORED:** *Foot Length*

**ARMY AVIATORS:** *Foot Length*

**AUSTRALIA:** *Foot Length*

**FAA:** *Foot Length*

**FRANCE '65:** *Longueur du pied*

**MONTAGU:** *Maximum Foot Length*

**NAVY RECRUITS:** *Foot Length*

**THAI:** *Foot Length*

**TUFTS:** *Foot Length*

**USMC:** *Foot Length*

**VIETNAM:** *Foot Length*

**WASP:** *Foot Length*

**See Also:**

*Instep Length*

## **FOOT LENGTH**

**Reference: AUSTRALIA**

Measured by means of a standard foot measuring chart placed between two right angle blocks, the length of the foot is taken as the longest measurement from heel to foremost toe.

***Foot Length—AUSTRALIA (Continued)***

N: 3302  
 $\bar{X}$ : 26.67 cm; 10.50 in  
SD: 1.19 cm; 0.45 in  
V%: [4.46]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

None

**Indeterminable:**

The reference dimension description does not specify the distribution of weight on the feet.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
HRDLICKA: *Foot Length*  
KOREA: *Foot Length*  
MARTIN: *Laenge des belasteten rechten Fusses*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAC: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

*Foot Length—AUSTRALIA (Continued)*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: FAA:**

Back of heel to tip of longest toe.

N: 678  
X: 26.82 cm; 10.56 in  
SD: 1.16 cm; 0.46 in  
V%: 4.35

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

None

**Indeterminable:**

The reference dimension description does not specify the distribution of weight on the feet.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
HRDLICKA: *Foot Length*  
KOREA: *Foot Length*  
MARTIN: *Laenge des belasteten rechten Fusses*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*

*Foot Length—FAA (Continued)*

NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAC: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: FOOT**

Length from heel to longest toe tip along rectangular ordinates. [from photograph]  
†body weight was equally distributed between the two feet.†

*White*

N: 5574  
 $\bar{X}$ : 26.84 cm; 10.57 in  
Est SD: [1.54 cm; 0.46 in]  
Est V%: [5.74]

*Negro*

1200  
27.55 cm; 10.85 in  
[1.23 cm; 0.48 in]  
[4.46]

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Foot Length*  
BULGARIA: *Length of the Foot*  
KOREA: *Foot Length*  
NATO: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
WAF RECRUITS: *Foot Length*

### *Foot Length—FOOT (Continued)*

#### **Not Equivalent:**

**HRDLIČKA:** *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb

**MARTIN:** *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]

**MORANT:** *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball

**WAC:** *Foot Length*—stands on left foot with right foot placed on a stool

#### **Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

**AAF:** *Foot Length*

**ARMY '66:** *Foot Length*

**ARMY ARMORED:** *Foot Length*

**ARMY AVIATORS:** *Foot Length*

**AUSTRALIA:** *Foot Length*

**FAA:** *Foot Length*

**FRANCE '65:** *Longueur du pied*

**MONTAGU:** *Maximum Foot Length*

**NAVY RECRUITS:** *Foot Length*

**THAI:** *Foot Length*

**TUFTS:** *Foot Length*

**USMC:** *Foot Length*

**VIETNAM:** *Foot Length*

**WASP:** *Foot Length*

#### **See Also:**

*Instep Length*

## **FOOT LENGTH**

#### **Reference: HRDLIČKA**

Length maximum, parallel with the long axis of the foot . . . direct the subject to place his left foot upon the bench . . . without pressure, putting all his weight on the right limb. The large sliding caliper is then applied so that its rod lies parallel with the long axis of the foot, its fixed branch touches the heel, and its movable branch is brought lightly to the most distal part of the longest toe.

No Data Available

#### **Similar Dimensions:**

##### **Equivalent:**

**WAC:** *Foot Length*

*Foot Length—HRDLÍČKA (Continued)*

**Not Equivalent:**

- ARMY QM: *Foot Length*—weight evenly distributed  
BULGARIA: *Length of the Foot*—weight equally distributed between the two feet  
FOOT: *Foot Length*—body weight was equally distributed between the two feet  
KOREA: *Foot Length*—weight equally distributed on both feet  
MARTIN: *Laenge des belasteten rechten Fusses*—[anthropometer . . . parallel to medial edge of the foot]  
MORANT: *Maximum Foot Length*—medial side of the foot is in contact with the side block at the heel and at the ball. . . with the body weight roughly supported equally by the two feet  
NATO: *Foot Length*—weight equally distributed on both feet  
USAF '50: *Foot Length*—weight equally distributed on both feet  
USN: *Foot Length*—weight equally distributed on both feet  
WAF RECRUITS: *Foot Length*—weight equally distributed on both feet

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

- AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
AUSTRALIA: *Foot Length*  
FAA: *Foot Length*  
FRANCE '65: *Longueur au pied*  
MONTAGU: *Maximum Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USMC: *Foot Length*  
VIETNAM: *Foot Length*  
WASP: *Foot Length*

**FOOT LENGTH**

**Reference: KOREA**

Subject stands with his right foot in the foot box, the foot just touching the side

***Foot Length—KOREA (Continued)***

and rear walls and the long axis parallel to the side wall, his weight equally distributed on both feet. Using the scale on the base of the box, measure from the rear wall to the tip of the longest toe.

N: 264  
 $\bar{X}$ : 24.76 cm; 9.74 in  
SD: 0.97 cm; 0.38 in  
V%: 3.90

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Foot Length*  
BULGARIA: *Length of the Foot*  
FOOT: *Foot Length*  
NATO: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
WAF RECRUITS: *Foot Length*

**Not Equivalent:**

HRDLIČKA: *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]  
MORANT: *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
AUSTRALIA: *Foot Length*  
FAA: *Foot Length*  
FRANCE '65: *Longueur du pied*  
MONTAGU: *Maximum Foot Length*  
NAVY RECRUITS: *Foot Length*

*Foot Length—KOREA (Continued)*

THAI: *Foot Length*  
TUFTS: *Foot Length*  
USMC: *Foot Length*  
VIETNAM: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: NATO**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls, its long axis parallel to the side wall, and his weight equally distributed on both feet. With the block touching the tip of the longest toe, measure foot length from the rear wall, using the scale on the floor of the box.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	10.84	1358
$\bar{X}$ : 26.22 cm; 10.32 in	26.30 cm; 10.35 in	26.44 cm; 10.41 in
SD: 1.09 cm; 0.43 in	1.16 cm; 0.46 in	1.13 cm; 0.44 in
V%: 4.14	4.41	4.27

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Foot Length*  
BULGARIA: *Length of the Foot*  
FOOT: *Foot Length*  
KOREA: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
WAF RECRUITS: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]

*Foot Length—NATO (Continued)*

MORANT: *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball

WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Length*

ARMY '66: *Foot Length*

ARMY ARMORED: *Foot Length*

ARMY AVIATORS: *Foot Length*

AUSTRALIA: *Foot Length*

FAA: *Foot Length*

FRANCE '65: *Longueur du pied*

MONTAGU: *Maximum Foot Length*

NAVY RECRUITS: *Foot Length*

THAI: *Foot Length*

TUFTS: *Foot Length*

USMC: *Foot Length*

VIETNAM: *Foot Length*

WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: NAVY RECRUITS**

Subject stands erect, with his right foot in a foot measuring box, and with his weight evenly distributed on both feet. The maximum length of the right foot is measured from the back of the heel to the tip of the longest toe. A foot measuring box is used.

N: 4095

$\bar{X}$ : 26.51 cm 10.44 in

SD: 1.29 cm; 0.51 in

V%: 4.87

*Foot Length—NAVY RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Foot Length*  
USMC: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses*—[weight of the body is transmitted through the right foot]  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

AAF: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

## FOOT LENGTH

### Reference: THAI

Measured as distance from back of right heel to tip of longest toe. †Weight Equally Distributed on Both Feet†

N: 2950  
 $\bar{X}$ : 24.6 cm; 9.7 in  
SD: 1.1 cm; 0.4 in  
V%: 4.5

### Similar Dimensions:

#### Equivalent:

VIETNAM: *Foot Length*

#### Not Equivalent:

HRDLICKA: *Foot Length*—putting all his weight on the right limb

MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]

WAC: *Foot Length*—stands on left foot with right foot placed on a stool

#### Indeterminable:

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

AAF: *Foot Length*

ARMY '66: *Foot Length*

ARMY ARMORED: *Foot Length*

ARMY AVIATORS: *Foot Length*

ARMY QM: *Foot Length*

AUSTRALIA: *Foot Length*

BULGARIA: *Length of the Foot*

FAA: *Foot Length*

FOOT: *Foot Length*

FRANCE '65: *Longueur du pied*

KOREA: *Foot Length*

MONTAGU: *Maximum Foot Length*

MORANT: *Maximum Foot Length*

NATO: *Foot Length*

NAVY RECRUITS: *Foot Length*

TUFTS: *Foot Length*

USAF '50: *Foot Length*

USMC: *Foot Length*

*Foot Length—THAI (Continued)*

USN: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: TUFTS**

Weight even on both feet. Left foot, maximum contact from heel to great toe (or second toe, if longer).

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Length*  
ARMY ARMORED: *Foot Length*  
WASP: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

ARMY '66: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*

*Foot Length—TUFTS (Continued)*

FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*  
WAF RECRUITS: *Foot Length*

**See Also:**

*Instep Length.*

## FOOT LENGTH

**Reference: USAF '50**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls and the long axis parallel to the side wall, his weight equally distributed on both feet. Using the scale on the base of the box, measure from the rear wall to the tip of the longest toe.

N: 4063  
 $\bar{X}$ : 26.68 cm; 10.50 in  
SD: 1.15 cm; 0.45 in  
V%: 4.30

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Foot Length*  
BULGARIA: *Length of the Foot*  
FOOT: *Foot Length*  
KOREA: *Foot Length*  
NATO: *Foot Length*  
USN: *Foot Length*  
WAF RECRUITS: *Foot Length*

*Foot Length—USAF '50 (Continued)*

**Not Equivalent:**

- HRDLIČKA: *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb
- MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]
- MORANT: *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball
- WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

- AAF: *Foot Length*
- ARMY '65: *Foot Length*
- ARMY ARMORED: *Foot Length*
- ARMY AVIATORS: *Foot Length*
- AUSTRALIA: *Foot Length*
- FAA: *Foot Length*
- FRANCE '65: *Longueur du pied*
- MONTAGU: *Maximum Foot Length*
- NAVY RECRUITS: *Foot Length*
- THAI: *Foot Length*
- TUFTS: *Foot Length*
- USMC: *Foot Length*
- VIETNAM: *Foot Length*
- WASP: *Foot Length*

**See Also:**

*Iustep Length*

**FOOT LENGTH**

**Reference: USMC**

Subject stands erect, with his right foot in a foot measuring box, and with his weight evenly distributed on both feet. The maximum length of the right foot is measured from the back of the heel to the tip of the longest toe. A foot measuring box is used.

***Foot Length—USMC (Continued)***

N: 2008  
 $\bar{X}$ : 26.69 cm; 10.51 in  
SD: 1.29 cm; 0.51 in  
V%: 4.84

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Foot Length*  
NAVY RECRUITS: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

AAF: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*  
VIETNAM: *Foot Length*

*Foot Length—USMC (Continued)*

WAF RECRUITS: *Foot Length*

WASP: *Foot Length*

**See Also:**

*Instep Length*

## FOOT LENGTH

**Reference: USN**

Subject stands with his right foot in the foot box, the foot just touching the side and rear walls, its long axis parallel to the side wall, and his weight equally distributed on both feet. With the block touching the tip of the longest toe, measure foot length from the rear wall, using the scale on the floor of the box.

N: 1549

$\bar{X}$ : 26.62 cm; 10.48 in

SD: 1.20 cm; 0.47 in

V%: 4.52

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Foot Length*

BULGARIA: *Length of the Foot*

FOOT: *Foot Length*

KOREA: *Foot Length*

NATO: *Foot Length*

USAF '50: *Foot Length*

WAF RECRUITS: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb

MARTIN: *Laenge des belasteten rechten Fusses*— [weight of the body is transmitted through the right foot]

MORANT: *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball

WAC: *Foot Length*—stands on left foot with right foot placed on a stool

*Foot Length—USN (Continued)*

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
AUSTRALIA: *Foot Length*  
FAA: *Foot Length*  
FRANCE '65: *Longueur du pied*  
MONTAGU: *Maximum Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USMC: *Foot Length*  
VIETNAM: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: VIETNAM**

Measured as distance from back of right heel to tip of longest toe. †Weight Equally Distributed on Both Feet†

N: 2129  
 $\bar{X}$ : 23.7 cm; 9.3 in  
SD: 1.0 cm; 0.4 in  
V%: 4.2

**Similar Dimensions:**

**Equivalent:**

THAI: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]

***Foot Length—VIETNAM (Continued)***

WAC: *Foot Length*—stands on left foot with right foot placed on a stool

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
TUFTS: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
USN: *Foot Length*  
WAF RECRUITS: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: WAC**

†Subject . . . stands on left foot with right foot placed on a stool, directly to the front.† Anthropometer held lateral to the foot and parallel to its anterior-posterior axis. Measurement taken from the most posterior point on the heel to the most anterior point on the longest toe of the left foot.

*Foot Length—W/AC (Continued)*

N: 1949  
X: 23.90 cm; 9.41 in  
SD: 1.12 cm; 0.44 in  
V%: [4.69]

**Similar Dimensions:**

**Equivalent:**

HRDLICKA: *Foot Length*

**Not Equivalent:**

ARMY QM: *Foot Length*—weight evenly distributed  
BULGARIA: *Length of the Foot*—weight equally distributed between the two feet  
FOOT: *Foot Length*—body weight was equally distributed between the two feet  
KOREA: *Foot Length*—weight equally distributed on both feet  
MARTIN: *Laenge des belasteten rechten Fusses*—[anthropometer . . . parallel to medial edge of the foot]  
MORANT: *Maximum Foot Length*—medial side of the foot is in contact with the side block at the heel and at the ball. . . †with the body weight roughly supported equally by the two feet  
NATO: *Foot Length*—weight equally distributed on both feet  
USAF '50: *Foot Length*—weight equally distributed on both feet  
USN: *Foot Length*—weight equally distributed on both feet  
WAF RECRUITS: *Foot Length*—weight equally distributed on both feet

**Indeterminable:**

In the following, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
AUSTRALIA: *Foot Length*  
FAA: *Foot Length*  
FRANCE '65: *Longueur du pied*  
MONTAGU: *Maximum Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USMC: *Foot Length*  
VIETNAM: *Foot Length*  
WASP: *Foot Length*

## FOOT LENGTH

### Reference: WAF RECRUITS

The subject stands with her weight equally distributed on both feet. Her right foot is placed in a special foot measuring box with her heel touching the rear wall of the box and the lateral edge of her instep touching the lateral wall of the box. The longitudinal axis of the foot is parallel to the lateral wall of the box so that the side of the heel is not necessarily in contact with the lateral wall of the measuring box. Measure the length from the rear of the measuring box to the tip of the longest toe.

N: 850  
 $\bar{X}$ : 23.94 cm; 9.43 in  
SD: 1.17 cm; 0.46 in  
V%: 4.89

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Foot Length*  
BULGARIA: *Length of the Foot*  
FLOT: *Foot Length*  
KOREA: *Foot Length*  
NATO: *Foot Length*  
USAF '50: *Foot Length*  
USN: *Foot Length*

#### Not Equivalent:

HRDLIČKA: *Foot Length*—left foot upon the bench . . . without pressure, putting all his weight on the right limb  
MARTIN: *Laenge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]  
MORANT: *Maximum Foot Length*—measuring board . . . foot is in contact with the side block at the heel and at the ball  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

#### Indeterminable:

In the following, the orientation of the measuring instrument relative to the foot is not described.

AAF: *Foot Length*  
ARMY '66: *Foot Length*  
ARMY ARMORED: *Foot Length*

*Foot Length—W'AF RECRUITS (Continued)*

ARMY AVIATORS: *Foot Length*  
AUSTRALIA: *Foot Length*  
FAA: *Foot Length*  
FRANCE '65: *Longueur du pied*  
MONTAGU: *Maximum Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
TUFTS: *Foot Length*  
USMC: *Foot Length*  
VIETNAM: *Foot Length*  
WASP: *Foot Length*

**See Also:**

*Instep Length*

**FOOT LENGTH**

**Reference: WASP**

Weight even on both feet. Left foot, maximum contact from heel to great toe (or second, if longer).

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 445	152
$\bar{X}$ : 24.30 cm; 9.57 in	24.26 cm; 9.55 in
SD: NDA	NDA
V%: NDA	NDA

**Similar Dimensions:**

**Equivalent:**

AAF: *Foot Length*  
ARMY ARMORED: *Foot Length*  
TUFTS: *Foot Length*

**Not Equivalent:**

HRDLICKA: *Foot Length*—putting all his weight on the right limb  
MARTIN: *Locuge des belasteten rechten Fusses* — [weight of the body is transmitted through the right foot]  
WAC: *Foot Length*—stands on left foot with right foot placed on a stool

*Foot Length—WASP (Continued)*

**Indeterminable:**

The reference dimension description does not specify the orientation of the measuring instrument relative to the foot.

ARMY '66: *Foot Length*  
ARMY AVIATORS: *Foot Length*  
ARMY QM: *Foot Length*  
AUSTRALIA: *Foot Length*  
BULGARIA: *Length of the Foot*  
FAA: *Foot Length*  
FOOT: *Foot Length*  
FRANCE '65: *Longueur du pied*  
KOREA: *Foot Length*  
MONTAGU: *Maximum Foot Length*  
MORANT: *Maximum Foot Length*  
NATO: *Foot Length*  
NAVY RECRUITS: *Foot Length*  
THAI: *Foot Length*  
USAF '50: *Foot Length*  
USMC: *Foot Length*  
VIETNAM: *Foot Length*  
WAF RECRUITS: *Foot Length*

**See Also:**

*Instep Length*

**FOOT WIDTH**

**Reference: AUSTRALIA**

The greatest measurement across the ball of the foot

N: 3302  
 $\bar{X}$ : 9.88 cm; 3.89 in  
SD: 1.09 cm; 0.43 in  
V%: [10.80]

*Foot Width—AUSTRALIA (Continued)*

**Similar Dimensions:**

**Equivalent:**

**None**

**Not Equivalent:**

AAF: *Foot Breadth*—maximum breadth  
ARMY ARMORED: *Foot Breadth*—maximum breadth  
ARMY AVIATORS: *Foot Breadth*—maximum width  
HRDLICKA: *Foot Breadth*—maximum breadth of the foot  
KOREA: *Foot Breadth*—widest part of the foot  
NATO: *Foot Breadth*—widest part of the foot  
THAI: *Foot Breadth*—maximum breadth of right foot  
USAF '50: *Foot Breadth*—widest part of the foot  
USN: *Foot Breadth*—widest part of the foot  
VIETNAM: *Foot Breadth*—maximum breadth of right foot  
WAF RECRUITS: *Foot Width*—widest part of the foot  
WASP: *Foot Breadth*—maximum breadth

**Indeterminable:**

In the reference dimension description, the orientation of the measuring instrument relative to the foot is not described.

ARMY '66: *Ball of Foot Breadth*  
ARMY QM: *Foot Breadth*  
FAA: *Foot Breadth*  
FOOT: *Foot Breadth (Diagonal)*  
FOOT: *Foot Breadth (Horizontal)*  
FRANCE '65: *Largeur du pied*  
MARTIN: *Breite des belasteten rechten Fusses*  
MONTAGU: *Foot Breadth*  
MORANT: *Diagonal Foot Breadth*  
NAVY RECRUITS: *Ball of Foot Breadth*  
USMC: *Ball of Foot Breadth*  
WAC: *Foot Breadth*

**See Also:**

*Breadth of Instep*

## FOOT WIDTH

### Reference: WAF RECRUITS

The subject stands with her weight equally distributed on both feet. Her right foot is placed in a special foot measuring box with her heel touching the rear wall of the box and the lateral edge of her instep touching the lateral wall of the box. The longitudinal axis of the foot is parallel to the lateral wall of the box so that the side of the heel is not necessarily in contact with the lateral wall of the box. Locate the widest part of the foot with a block and read the width from the grid on the base of the measuring box.

N: 849  
 $\bar{X}$ : 9.09 cm; 3.58 in  
SD: 0.53 cm; 0.20 in  
V%: 5.82

### Similar Dimensions:

#### Equivalent:

AAF: *Foot Breadth*  
ARMY ARMORED: *Foot Breadth*  
KOREA: *Foot Breadth*  
NATO: *Foot Breadth*  
USAF '50: *Foot Breadth*  
USN: *Foot Breadth*  
WASP: *Foot Breadth*

#### Not Equivalent:

ARMY '66: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joint:)  
ARMY QM: *Foot Breadth*—across the metatarsal-phalangeal joints  
FAA: *Foot Breadth*—between the distal extremities of the first and fifth metatarsale  
FOOT: *Foot Breadth (Diagonal)*—diagonal between the prominences of the 1st and 5th metatarso-phalangeal joints  
FOOT: *Foot Breadth (Horizontal)*—between the longitudinal planes defined by the prominences of the 1st and 5th metatarso-phalangeal joints  
FRANCE '65: *Largeur du pied*—[between the widest points at the heads of the first and fifth metatarsals]  
MARTIN: *Breite des belasteten rechten Fusses*—[Straight line distance from the medial metatarsal to the lateral metatarsale of the weight supporting foot]  
MONTAGU: *Foot Breadth*—medial margin of the head of the first metatarsal to the lateral margin of the head of the fifth metatarsal  
MORANT: *Diagonal Foot Breadth*—chord . . . between . . . medial surface of the ball and . . . lateral surface in the region of the fifth metatarso-phalangeal joint  
NAVY RECRUITS: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

*Foot Width—WAF RECRUITS (Continued)*

USMC: *Ball of Foot Breadth*—between the inner and outer balls of the foot (first and fifth metatarsal-phalangeal joints)

WAC: *Foot Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

ARMY AVIATORS: *Foot Breadth*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

AUSTRALIA: *Foot Width*—[Orientation of the measuring instrument and distribution of body weight on the feet are not specified.]

HRDLICKA: *Foot Breadth*—[Distribution of body weight is not specified.]

THAI: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

VIETNAM: *Foot Breadth*—[Orientation of the measuring instrument is not specified.]

**FORE-ARM [LENGTH]**

**Reference: INDIA**

†The height of the seat [13½ in - 34.3 cm] is first adjusted by adding to or reducing the number of pieces of wooden blocks [½ in - 1.27 cm] on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with the back against one wing of the board and his right side touching the other wing† Subject sits back "hard" at the corner, right arm pressed at the board, arm along the art [fore-aft] plane of the body, fore-arm at right angle with the palm facing inward, finger stretched, block placed against farther most point of the tip of the finger.

N: 691

$\bar{X}$ : 54.47 cm; 21.44 in [sic]

SD: 3.13 cm; 1.23 in

V%: [5.75]

**Similar Dimensions:**

**Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip*

**Not Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*—[arm unsupported]

**Fore-Arm [Length]—INDIA (Continued)**

ARMY AVIATORS: *Forearm-Hand Length* - [arm unsupported]  
ARMY QM: *Forearm-Hand Length* - [arm unsupported]  
FAA: *Forearm-Hand Length* - [arm unsupported]  
FRANCE '55: *Coudée* - forearm . . . placed on the table  
FRANCE: '65: *Longueur olécrane dactylion* - [arm unsupported]  
JAPAN: *Forearm-Hand Length* - [arm unsupported]  
KOREA: *Forearm-Hand Length* - [arm unsupported]  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)* - [arm unsupported]  
THAI: *Forearm-Hand Length* - [arm unsupported]  
USAF '50: *Forearm-Hand Length* - [arm unsupported]  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)* - [arm unsupported]  
USN: *Forearm-Hand Length* - [arm unsupported]  
VIETNAM: *Forearm-Hand Length* - [arm unsupported]  
WAC: *Forearm-Hand Length* - [arm unsupported]

Indeterminable:

None

See Also:

*Elbow to Center of Grip*

**FOREARM CIRCUMFERENCE**

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon† Measurement taken as the maximum horizontal circumference of the forearm. Left side only.

N: 8512  
X: 22.67 cm; 8.92 in  
SD: 1.69 cm; 0.67 in  
V%: [7.45]

Similar Dimensions:

Equivalent:

FAA: *Lower Arm Circumference*  
FRANCE '65: *Périmètre maximum de l'avant-bras*

***Forearm Circumference—WAC (Continued)***

**Not Equivalent:**

- ARMY QM: *Middle Forearm Circumference* - midway between . . . cubital fossa and . . . wrist  
ARMY QM: *Upper Forearm Circumference* - superior border of the tape crosses radiale  
GENEVA: *Maximum Circumference of the Forearm* - immediately below the joint-level  
MARTIN: *Groesster Umfang des rechten Unterarmes* - [a little below the elbow]  
MONTAGU: *Maximum Circumference of the Right Forearm* - Immediately distal to the elbow joint  
NATO: *Lower Arm Circumference, Extended* - right arm extended . . . circumference . . . at the level of maximum protrusion of the forearm . . . when . . . arm to a right angle . . . maximum fist.  
WASP: *Forearm Circumference* - halfway between elbow and wrist

**Indeterminable:**

None

**See Also:**

*Forearm Circumference, Flexed*

**FOREARM CIRCUMFERENCE**

**Reference: WASP**

Circumference taken halfway between elbow and wrist.

***Women Pilots***

N: 445  
X: 19.02 cm; 7.49 in  
SD: NDA  
V%: NDA

***Flying Nurses***

149  
19.20 cm; 7.56 in  
NDA  
NDA

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Middle Forearm Circumference*

**Forearm Circumference—WASP (Continued)**

**Not Equivalent:**

ARMY QM: *Upper Forearm Circumference* - superior border of the tape crosses radiale

FAA: *Lower-Arm Circumference* - the maximum circumference of the forearm  
FRANCE '65: *Périmètre maximum de l'avant-bras* - [at the level of the most protruding muscles of the forearm.]

GENEVA: *Maximum Circumference of the Forearm* - immediately below the joint-level.

MARTIN: *Groesster Umfang des rechten Unterarmes* - [a little below the elbow]

MONTAGU: *Maximum Circumference of the Right Forearm* - Immediately distal to the elbow joint

NATO: *Lower Arm Circumference, Extended* - right arm extended . . . circumference . . . at the level of maximum protrusion of the forearm . . . when . . . arm to a right angle . . . maximum fist

WAC: *Forearm Circumference* - maximum horizontal circumference

**Indeterminable:**

None

**See Also:**

*Forearm Circumference, Flexed*

**FOREARM CIRCUMFERENCE, FLEXED**

**Reference: ARMY '66**

Subject stands erect, with his right arm bent, fist clenched, and arm muscles flexed. The maximum circumference of the right forearm is measured at the greatest bulge of the flexed forearm muscles. A steel tape is used.

N: 6682

$\bar{X}$ : 29.43 cm; 11.59 in

SD: 2.15 cm; 0.85 in

V%: 7.31

**Similar Dimensions:**

**Equivalent:**

JAPAN: *Lower Arm Circumference (Flexed)*

***Forearm Circumference, Flexed—ARMY '66 (Continued)***

KOREA: *Lower Arm Circumference (Flexed)*  
NATO: *Lower Arm Circumference (Flexed)*  
NAVY RECRUITS: *Forearm Circumference, Flexed*  
USAF '50: *Lower Arm Circumference (Flexed)*  
USMC: *Forearm Circumference, Flexed*  
USN: *Lower Arm Circumference [Flexed]*  
WAF RECRUITS: *Lower Arm Circumference (Flexed)*

**Not Equivalent:**

WOMEN: *Forearm Girth - hand and fingers extended*

**Indeterminable:**

None

**See Also:**

*Upper Forearm Circumference*

**FOREARM CIRCUMFERENCE, FLEXED**

**Reference: NAVY RECRUITS**

Subject stands erect, with his right arm bent, fist clenched, and arm muscles flexed. The maximum circumference of the right forearm is measured at the greatest bulge of the flexed forearm muscles. A steel tape is used.

N: 4095  
X: 28.54 cm; 11.24 in  
SD: 1.98 cm; 0.78 in  
V%: 6.90

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Forearm Circumference, Flexed*  
JAPAN: *Lower Arm Circumference (Flexed)*  
KOREA: *Lower Arm Circumference (Flexed)*  
NATO: *Lower Arm Circumference (Flexed)*  
USAF '50: *Lower Arm Circumference (Flexed)*  
USMC: *Forearm Circumference, Flexed*  
USN: *Lower Arm Circumference [Flexed]*

***Forearm Circumference, Flexed—NAVY RECRUITS (Continued)***

**WAF RECRUITS: Lower Arm Circumference (Flexed)**

**Not Equivalent:**

**WOMEN: Forearm Girth - hand and fingers extended**

**Indeterminable:**

**None**

**See Also:**

***Upper Forearm Circumference***

**FOREARM CIRCUMFERENCE, FLEXED**

**Reference: USMC**

Subject stands erect, with his right arm bent, fist clenched, and arm muscles flexed. The maximum circumference of the right forearm is measured at the greatest bulge of the flexed forearm muscles. A steel tape is used.

N: 2008  
X: 29.41 cm; 11.58 in  
SD: 1.87 cm; 0.74 in  
V%: 6.41

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Forearm Circumference, Flexed*  
JAPAN: *Lower Arm Circumference (Flexed)*  
KOREA: *Lower Arm Circumference (Flexed)*  
NATO: *Lower Arm Circumference (Flexed)*  
NAVY RECRUITS: *Forearm Circumference, Flexed*  
USAF '50: *Lower Arm Circumference (Flexed)*  
USN: *Lower Arm Circumference [Flexed]*  
WAF RECRUITS: *Lower Arm Circumference (Flexed)*

**Not Equivalent:**

**WOMEN: Forearm Girth - hand and fingers extended**

***Forearm Circumference, Flexed—USMC (Continued)***

**Indeterminable:**

None

**See Also:**

*Upper Forearm Circumference*

**FOREARM GIRTH**

**Reference: WOMEN**

Tape. †The subject stood in a normal, erect position, her right arm flexed approximately 90 degrees at the elbow and the hand and fingers extended anteriorly. The upper arm was directed downward perpendicularly to the floor.† The tape, with the zero point directly in front of the measurer, was placed without constriction around the arm at the angle formed when the forearm was flexed at a 90 degree angle to the upper arm. The plane of the girth was perpendicular to the floor. The tape case provided the tension.

N: 10042  
X: 24.77 cm; 9.75 in  
SD: 2.13 cm; 0.84 in  
V%: 8.7

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Forearm Circumference, Flexed* - fist clenched  
JAPAN: *Lower Arm Circumference (Flexed)* - makes a fist  
KOREA: *Lower Arm Circumference (Flexed)* - makes a fist  
NATO: *Lower Arm Circumference (Flexed)* - makes a fist  
NAVY RECRUITS: *Forearm Circumference, Flexed* - fist clenched  
USAF '50: *Lower Arm Circumference (Flexed)* - makes a fist  
USMC: *Forearm Circumference, Flexed* - fist clenched  
USN: *Lower Arm Circumference [Flexed]* - makes a fist  
WAF RECRUITS: *Lower Arm Circumference (Flexed)* - makes a fist

**Indeterminable:**

***Forearm Girth—WOMEN (Continued)***

None

**See Also:**

*Upper Forearm Circumference*

**FOREARM LENGTH**

**Reference: COMAS**

†With subject in standing position† From radiale †the uppermost point of the border of the radial cup (with arm hanging loose and palm applied to thigh)† to stylium †the distalmost point of the styloid process of the radius† (sliding calliper).

No Data Available

**Similar Dimensions:**

**Equivalent:**

**BULGARIA:** *Elbow Wrist Length*

**MARTIN:** *Laenge des rechten Unterarmes*

**MONTAGU:** *Lower Arm Length*

**Not Equivalent:**

**NATO:** *Elbow-Wrist Length - tip of the right elbow to stylium*

**Indeterminable:**

None

**FOREARM-HAND LENGTH**

**Reference: ARMY AVIATORS**

The horizontal distance from the right elbow to the end of the middle finger of the right hand.

N: 500

X: 48.34 cm; 19.03 in

SD: 2.18 cm; 0.86 in

V%: [4.51]

**Forearm-Hand Length--ARMY AVIATORS (Continued)**

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrane dactylion*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Fingertip - elbow against wall*  
INDIA: *Fore-arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FOREARM-HAND LENGTH**

**Reference: ARMY QM**

†Subject sits on a table with adjustable foot rest. Subject sits erect with thighs just touching the table and knees at right angles . . . his right upper arm held against the side, and the forearm held at right angles to it† with fingers extended. Anthropometer held parallel to the axis of the forearm, measure from the posterior point on the olecranon process †the projecting process of the ulna at the elbow† to dactylion †the tip of the middle finger†. Firm Contact.

**Forearm-Hand Length—ARMY QM (Continued)**

N: 24354

$\bar{X}$ : 47.58 cm; 18.73 in

SD: 2.23 cm; 0.88 in

V%: [4.68]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Elbow-Fingertip Length (Forearm-Hand Length)

ARMY AVIATORS: Forearm-Hand Length

FAA: Forearm-Hand Length

FRANCE: '55: Coudée

FRANCE '65: Longueur olécrane dactylion

JAPAN: Forearm-Hand Length

KOREA: Forearm-Hand Length

NAVY RECRUITS: Elbow-Fingertip Length (Forearm-Hand Length)

THAI: Forearm-Hand Length

USAF '50: Forearm-Hand Length

USMC: Elbow-Fingertip Length (Forearm-Hand Length)

USN: Forearm-Hand Length

VIETNAM: Forearm-Hand Length

WAC: Forearm-Hand Length

**Not Equivalent:**

ARMY ARMORED: Elbow to Finger Tip - elbow against wall

INDIA: Fore-Arm [Length] - right arm pressed at the board

**Indeterminable:**

None

**See Also:**

Elbow to Center of Grip

**FOREARM-HAND LENGTH**

**Reference: FAA**

The distance from the most posterior point of the elbow to the tip of the longest finger.

**Forearm-Hand Length—FAA (Continued)**

N: 681  
X: 47.95 cm; 18.88 in  
SD: 2.25 cm; 0.89 in  
V%: 4.71

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Elbow-Fingertip Length (Forearm-Hand Length)  
ARMY AVIATORS: Forearm-Hand Length  
ARMY QM: Forearm-Hand Length  
FRANCE '55: Coudée  
FRANCE '65: Longueur olécrane dactylion  
JAPAN: Forearm-Hand Length  
KOREA: Forearm-Hand Length  
NAVY RECRUITS: Elbow-Fingertip Length (Forearm-Hand Length)  
THAI: Forearm-Hand Length  
USAF '50: Forearm-Hand Length  
USMC: Elbow-Fingertip Length (Forearm-Hand Length)  
USN: Forearm-Hand Length  
VIETNAM: Forearm-Hand Length  
WAC: Forearm-Hand Length

**Not Equivalent:**

ARMY ARMORED: Elbow to Finger Tip - elbow against wall  
INDIA: Fore-Arm [Length] - right arm pressed at the board

**Indeterminable:**

None

**See Also:**

Elbow to Center of Grip

**FOREARM-HAND LENGTH**

**Reference: JAPAN**

Subject sits erect, his right upper arm hanging at his side, his forearm and hand extended horizontally. Using the anthropometer, measure the distance from the tip of the right elbow to the tip of the longest finger.

***Forearm-Hand Length—JAPAN (Continued)***

N: 211  
X: 44.38 cm; 17.47 in  
SD: 1.78 cm; 0.70 in  
V%: 4.00

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrane dactylion*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FOREARM-HAND LENGTH**

**Reference: KOREA**

Subject sits erect, his right upper arm hanging at his side, his forearm and hand extended horizontally. Using the anthropometer, measure the distance from the tip of the right elbow to the tip of the longest finger.

**Forearm-Hand Length—KOREA (Continued)**

N: 264  
X: 44.24 cm; 17.42 in  
SD: 1.89 cm; 0.74 in  
V%: 4.27

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrane dactylion*  
JAPAN: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FOREARM-HAND LENGTH**

**Reference: THAI**

†Subject sitting erect on table or bench† With right arm held to form a right angle at elbow and with hand extended, measured as distance from elbow (olecranon process) to tip of middle finger (dactylion).

***Forearm-Hand Length—THAI (Continued)***

N: 2950  
X: 45.7 cm; 18.0 in  
SD: 2.0 cm; 0.8 in  
V%: 4.4

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrane dactylion*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FOREARM-HAND LENGTH**

**Reference: USAF '50**

Subject sits erect, his right upper arm hanging at his side, his forearm and hand extended horizontally. Using the anthropometer, measure the distance from the tip of the right elbow to the tip of the longest finger.

***Forearm-Hand Length—USAF '50 (Continued)***

N: 4059  
X: 47.91 cm; 18.86 in  
SD: 2.07 cm; 0.81 in  
V%: 4.41

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrane dactylion*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
USN: *Forearm-Hand Length*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FOREARM-HAND LENGTH**

**Reference: USN**

Subject sits erect, his right upper arm hanging at his side, his forearm and hand extended horizontally. Using the anthropometer, measure the distance from the tip of the right elbow to the tip of the longest finger. [USAF '50]

***Forearm-Hand Length—USN (Continued)***

N: 1549  
X: 48.46 cm; 19.08 in  
SD: 1.90 cm; 0.75 in  
V%: 3.92

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Elbow-Fingertip Length (Forearm-Hand Length)*  
ARMY AVIATORS: *Forearm-Hand Length*  
ARMY QM: *Forearm-Hand Length*  
FAA: *Forearm-Hand Length*  
FRANCE '55: *Coudée*  
FRANCE '65: *Longueur olécrane dactylion*  
JAPAN: *Forearm-Hand Length*  
KOREA: *Forearm-Hand Length*  
NAVY RECRUITS: *Elbow-Fingertip Length (Forearm-Hand Length)*  
THAI: *Forearm-Hand Length*  
USAF '50: *Forearm-Hand Length*  
USMC: *Elbow-Fingertip Length (Forearm-Hand Length)*  
VIETNAM: *Forearm-Hand Length*  
WAC: *Forearm-Hand Length*

**Not Equivalent:**

ARMY ARMORED: *Elbow to Finger Tip - elbow against wall*  
INDIA: *Fore-Arm [Length] - right arm pressed at the board*

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FOREARM-HAND LENGTH**

**Reference: VIETNAM**

†Subject sitting erect on table or bench† With right arm held to form a right angle at elbow and with hand extended, measured as distance from elbow (olecranon process) to tip of middle finger (dactylion).

**Forearm-Hand Length—VIETNAM (Continued)**

N: 2129  
X: 44.6 cm; 17.6 in  
SD: 2.0 cm; 0.8 in  
V%: 4.5

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Elbow-Fingertip Length (Forearm-Hand Length)  
ARMY AVIATORS: Forearm-Hand Length  
ARMY QM: Forearm-Hand Length  
FAA: Forearm-Hand Length  
FRANCE '55: Coudée  
FRANCE: '65: Longueur olécrane dactylion  
JAPAN: Forearm-Hand Length  
KOREA: Forearm-Hand Length  
NAVY RECRUITS: Elbow-Fingertip Length (Forearm-Hand Length)  
THAI: Forearm-Hand Length  
USAF '50: Forearm-Hand Length  
USMC: Elbow-Fingertip Length (Forearm-Hand Length)  
USN: Forearm-Hand Length  
WAC: Forearm-Hand Length

**Not Equivalent:**

ARMY ARMORED: Elbow to Finger Tip - elbow against wall  
INDIA: Fore-Arm [Length] - right arm pressed at the board

**Indeterminable:**

None

**See Also:**

Elbow to Center of Grip

**FOREARM-HAND LENGTH**

**Reference: WAC**

†Subject stands erect with eyes on an imaginary horizon with upper arm parallel to the body and forearm at a right angle to it† fingers extended. †Anthropometer held to the left of the subject, parallel to the floor† Measurement taken from the

**Forearm-Hand Length—WAC (Continued)**

most posterior point on the left olecranon process to dactylion ~~the~~ most distal point of the third finger.

No Data Available

**Similar Dimensions:**

**Equivalent:**

ARMY '66: Elbow-Fingertip Length (Forearm-Hand Length)  
ARMY AVIATORS: Forearm-Hand Length  
ARMY QM: Forearm-Hand Length  
FAA: Forearm-Hand Length  
FRANCE '35: Coudée  
FRANCE '65: Longueur olécrane dactylion  
JAPAN: Forearm-Hand Length  
KOREA: Forearm-Hand Length  
NAVY RECRUITS: Elbow-Fingertip Length (Forearm-Hand Length)  
THAI: Forearm-Hand Length  
USAF '50: Forearm-Hand Length  
USMC: Elbow-Fingertip Length (Forearm-Hand Length)  
USN: Forearm-Hand Length  
VIETNAM: Forearm-Hand Length

**Not Equivalent:**

ARMY ARMORED: Elbow to Finger Tip - elbow against wall  
INDIA: Fore-Arm [Length] - right arm pressed at the board

**Indeterminable:**

None

**See Also:**

*Elbow to Center of Grip*

**FULL BACK LENGTH**

**Reference: AUSTRALIA**

Measured from the nape of the neck to the natural waist at the line of greatest suppression, then to a line 2 inches below the fork.

**Full Back Length—AUSTRALIA (Continued)**

N: 2236  
X: 74.03 cm; 29.15 in  
SD: 4.62 cm; 1.82 in  
V%: [6.24]

**Similar Dimensions:**

None

**See Also:**

*Trunk Height*

**FUNCTIONAL REACH**

**Reference: ARMY '66**

Subject stands erect against a wall, with his right arm extended forward horizontally, and with the tips of his thumb and index finger pressed together; his shoulders must remain in contact with the wall. Functional reach is measured as the horizontal distance from the wall to the tip of the thumb. An anthropometer is used.

N: 6680  
X: 82.60 cm; 32.52 in  
SD: 4.85 cm; 1.91 in  
V%: 5.87

**Similar Dimensions:**

**Equivalent:**

KOREA: *Functional Reach*  
NATO: *Functional Reach*  
NAVY RECRUITS: *Functional Reach*  
USAF '50: *Functional Reach*  
USMC: *Functional Reach*  
USN: *Functional Reach*

**Not Equivalent:**

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

**Functional Reach—ARMY '66 (Continued)**

**Indeterminable:**

None

**See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

**FUNCTIONAL REACH**

**Reference: FAA**

†The subject stands with his back to the wall, thrusting his right shoulder as far forward as possible with his right arm and hand extended horizontally† forefinger and thumb are opposed and the distance from the wall to the tip of the thumb is recorded.

N: 681  
X: 87.26 cm; 34.36 in  
SD: 4.56 cm; 1.80 in  
V%: 5.22

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

ARMY '66: *Functional Reach* - shoulders must remain in contact with the wall

KOREA: *Functional Reach* - shoulders pressed against the rear wall

NATO: *Functional Reach* - right shoulder relaxed and touching wall

NAVY RECRUITS: *Functional Reach* - shoulders must remain in contact with the wall

USAF '50: *Functional Reach* - shoulders pressed against the rear wall

USMC: *Functional Reach* - shoulders must remain in contact with the wall.

USN: *Functional Reach* - right shoulder relaxed and touching wall

**Indeterminable:**

None

***Functional Reach—FAA (Continued)***

**See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

**FUNCTIONAL REACH**

**Reference: KOREA**

Subject stands erect in a corner of the room. His shoulders pressed against the rear wall, his right arm and hand extended horizontally along the side wall, except that the tips of his thumb and forefinger are pressed together. Using the scale on the side wall, measure the distance from the rear wall to the tip of the thumb.

N: 264  
X: 69.29 cm; 27.28 in  
SD: 4.21 cm; 1.66 in  
V%: 6.07

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Functional Reach*  
NATO: *Functional Reach*  
NAVY RECRUITS: *Functional Reach*  
USAF '50: *Functional Reach*  
USMC: *Functional Reach*  
USN: *Functional Reach*

**Not Equivalent:**

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

**Indeterminable:**

None

**See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

## FUNCTIONAL REACH

Reference: NATO

Subject stands erect, his back against a wall, his right arm extended forward parallel to the floor, the tip of his index finger touching the tip of his extended thumb, the thumb in the plane of the extended arm, and his right shoulder relaxed and touching the wall. Using the anthropometer, measure the horizontal distance from the wall to the tip of the thumb.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 893	1084	1358
$\bar{X}$ : 75.58 cm; 29.76 in	75.66 cm; 29.79 in	75.32 cm; 29.65 in
SD: 3.55 cm; 1.40 in	3.35 cm; 1.32 in	3.72 cm; 1.46 in
V%: 4.70	4.43	4.93

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Functional Reach*  
KOREA: *Functional Reach*  
NAVY RECRUITS: *Functional Reach*  
USAF '50: *Functional Reach*  
USMC: *Functional Reach*  
USN: *Functional Reach*

#### Not Equivalent:

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

#### Indeterminable:

#### See Also:

*Anterior Arm Reach*  
*Arm Reach From Wall*

## FUNCTIONAL REACH

Reference: NAVY RECRUITS

**Functional Reach—NAVY RECRUITS (Continued)**

Subject stands erect against a wall, with his right arm extended forward horizontally, and with the tips of his thumb and index finger pressed together; his shoulders must remain in contact with the wall. Functional reach is measured as the horizontal distance from the wall to the tip of the thumb. An anthropometer is used.

N: 4069  
X: 81.48 cm; 32.08 in  
SD: 4.64 cm; 1.83 in  
V%: 5.71

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Functional Reach*  
KOREA: *Functional Reach*  
NATO: *Functional Reach*  
USAF '50: *Functional Reach*  
USMC: *Functional Reach*  
USN: *Functional Reach*

**Not Equivalent:**

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

**Indeterminable:**

None

**See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

**FUNCTIONAL REACH**

**Reference: USAF '50**

Subject stands erect in a corner of the room, his shoulders pressed against the rear wall, his right arm and hand extended horizontally along the side wall, except that the tips of his thumb and forefinger are pressed together. Using the scale on the side wall, measure the distance from the rear wall to the tip of the

**Functional Reach—USAF '50 (Continued)**

thumb.

N: 4053  
X: 82.12 cm; 32.33 in  
SD: 4.14 cm; 1.63 in  
V%: 5.04

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Functional Reach*  
KOREA: *Functional Reach*  
NATO: *Functional Reach*  
NAVY RECRUITS: *Functional Reach*  
USMC: *Functional Reach*  
USN: *Functional Reach*

**Not Equivalent:**

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

**Indeterminable:**

None

**See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

**FUNCTIONAL REACH**

**Reference: USMC**

Subject stands erect against a wall, with his right arm extended forward horizontally, and with the tips of his thumb and index finger pressed together; his shoulders must remain in contact with the wall. Functional reach is measured as the horizontal distance from the wall to the tip of the thumb. An anthropometer is used.

N: 2008  
X: 80.34 cm; 31.63 in  
SD: 4.80 cm; 1.89 in  
V%: 5.97

### ***Functional Reach—USMC (Continued)***

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY '66: *Functional Reach*  
KOREA: *Functional Reach*  
NATO: *Functional Reach*  
NAVY RECRUITS: *Functional Reach*  
USAF '50: *Functional Reach*  
USN: *Functional Reach*

##### **Not Equivalent:**

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

##### **Indeterminable:**

None

#### **See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

### **FUNCTIONAL REACH**

#### **Reference: USN**

Subject stands erect, his back against a wall, his right arm extended forward parallel to the floor, the tip of his index finger touching the tip of his extended thumb, the thumb in the plane of the extended arm, and his right shoulder relaxed and touching the wall. Using the anthropometer, measure the horizontal distance from the wall to the tip of the thumb.

N: 1549  
 $\bar{X}$ : 80.03 cm; 31.51 in  
SD: 3.61 cm; 1.42 in  
V%: 4.51

#### **Similar Dimensions:**

##### **Equivalent:**

***Functional Reach—USN (Continued)***

ARMY '66: *Functional Reach*  
KOREA: *Functional Reach*  
NATO: *Functional Reach*  
NAVY RECRUITS: *Functional Reach*  
USAF '50: *Functional Reach*  
USMC: *Functional Reach*

**Not Equivalent:**

FAA: *Functional Reach* - thrusting his right shoulder as far forward as possible

**Indeterminable:**

None

**See Also:**

*Anterior Arm Reach*  
*Arm Reach From Wall*

## GANZE ARMLAENGE RECHTS [TOTAL ARM LENGTH, RIGHT]

Reference: MARTIN

Geradlinige Entfernung des Akromion fderjenige Punkt des Seitenrandes des Processus acromialis des Schulterblattes, der bei aufrechter Koerperhaltung und haengendem Arm am meisten seitlich gelegen istf vom Daktylion fderjenige Punkt am Vorderrand der Fingerbeere des Mittelfingers, der bei haengendem Arm am tiefsten gelegen istf der haengenden, gestreckten rechten oberen Extremitaet. Stangenzirkel.

[Straight line distance from the acromion fthat point on the lateral edge of the acromial process of the scapula which is located most laterally if the posture is erect and the arm is hangingf to dactylion fthat point on the tip of the middle finger which is lowest if the arm hangs downf of the hanging, stretched, right upper extremity. Beam Caliper.]

No Data Available

### Similar Dimensions:

Equivalent:

MONTAGU: Total Upper Extremity Length

Not Equivalent:

ARMY QM: Arm Length - acromiale fmost lateral point on the superior surfacef to dactylion

COMAS: Total Upper Extremity Length - acromiale fmost distal point, palpable from abovef to dactylion

MARTIN: Armlaenge rechts ohne Hand - [acromion fon the lateral edgef to stylium]

MONTAGU: Total Arm Length - acromiale fmost lateral projection of the lateral borderf to stylium

WASP: Arm Length - top of clavicle to the tip of the middle finger

WOMEN: Total Posterior Arm Length, Right - right fist was placed on her hip . . . tape was passed over the olecranon

Indeterminable:

In the following, acromion is not defined.

BULGARIA: Leng'a of the Arm

FRANCE '65: Longueur acromio-dactylion

## GANZE KOPFHÖHE [TOTAL HEAD HEIGHT]

Reference: MARTIN

Projektivische Entfernung des Scheitels vom Gnathion (derjenige Punkt des Unterrandes des Unterkiefers, der in der Mediansagittal-Ebene am meisten nach unten vorragt. Gemeint ist ein Punkt des knöchernen Unterkiefers, der von unten her palpiert werden kann und natürlich weiter zurückliegt als die vordere Hautbegrenzung des Kinnes). . . . Man . . . orientiert den Kopf in die Ohraugenebene . . . .

[Projected distance from the vertex to gnathion (that point on the lower edge of the mandible which protrudes most inferiorly in the midsagittal plane. This is the point on the bony jaw which can be palpated from below and which, of course, is more recessed than the forward skin surface of the chin). . . . one positions the head in the ear-eye plane. . . .]

No Data Available

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: Head Height - from tracion to mid-longitudinal line on top of head

ARMY '66: Head Height (Tracion-Vertex Height) - from . . . (tracion) . . . to the top of the head (vertex)

ARMY ARMORED: Head Height - from tracion to mid-longitudinal line on top of head

ARMY AVIATORS: Head Height - from the notch (tracion) . . . to the top of the head

ARMY QM: Head Height - between porion . . . and apex

COMAS: Height of the Head - from the vertex to the tracion

HRDLICKA: Height of the Head - from the middle of the line connecting the floor of the 2 auditory canals, to bregma

KOREA: Head Height (Tracion to Vertex) - from . . . (tracion) . . . to the highest point of the head

MARTIN: Ohrhöhe des Kopfes - [from tracion to bregma]

MARTIN-SALLER: Ohrhöhe des Kopfes - [from tracion to vertex]

MONTAGU: Head Height - [from roof of ear hole] to the level of the top of the head

MONACO: Hauteur de la tête - [from] vertex [to] the superior border of the auditory opening]

***Canse Kopshoehe [Total Head Height]—MARTIN (Continued)***

NATO: *Tragion-to-Vertex Height* - vertical distance from tragion to vertex  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)* - from . . . (tragion)  
                  . . . to the top of the head (vertex)  
THAI: *Head Height* - from . . . (tragion) to top of head (vertex)  
TUFTS: *Head Height* - from tragion . . . to mid-longitudinal line on top of  
          head  
USAF '50: *Head Height (Tragion to Vertex)* - vertical distance from . . .  
          (tragion) . . . to the highest point of the head  
USMC: *Head Height (Tragion-Vertex Height)* - from . . . (tragion) . . . to  
          the top of the head (vertex)  
USN: *Head Height* - vertical distance from tragion to vertex  
VIETNAM: *Head Height* - from . . . (tragion) to top of head (vertex)  
WAC: *Head Height* - from apex . . . to the center of tragus

Indeterminable:

None

**See Also:**

*Tragion to Wall Distance*

## **GIRTH OF CALF**

**Reference:** HRDLIČKA

Maximum circumference of calf. The left foot is placed on a bench . . . and it is brought forward so that the leg forms a little larger than a right angle with the thigh. . . . The tape . . . is then applied somewhat above the maximum bulge of the leg, is brought snugly around but not tightly enough to cause impression . . . then moved somewhat lower . . . and the process is repeated until the maximum girth has been determined.

No Data Available

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

In all of the following references, the subject is free standing, leg straight.

### Girth Of Calf—HRDLÍČKA (Continued)

AAF: Calf Circumference  
 ARMY '66: Calf Circumference  
 ARMY ARMORED: Calf Circumference  
 ARMY QM: Calf Circumference  
 FAA: Calf Circumference  
 FRANCE '65: *Férimètre maximum de la jambe*  
 GENEVA: Circumference of the Calf of the Leg  
 JAPAN: Calf Circumference  
 KOREA: Calf Circumference  
 MARTIN: *Groesster Umfang des rechten Unterschenkels*  
 NATO: Calf Circumference  
 NAVY RECRUITS: Calf Circumference  
 THAI: Calf Circumference  
 THOUSAND AVIATORS: Calf Circumference  
 USAF '50: Calf Circumference  
 USMC: Calf Circumference  
 USN: Calf Circumference  
 VIETNAM: Calf Circumference  
 WAF RE CRUITS: Calf Circumference  
 WASP: Calf Circumference  
 WOMEN: Calf Girth

Indeterminable:

None

### GLABELLA - TO - VERTEX HEIGHT

Reference: NATO

Subject stands comfortably under the headboard with his head oriented in the Frankfort plane. The headboard slide is then adjusted so that its wall and ceiling surfaces rest snugly against the back and vertex *†the top of the head in the midsagittal plane when the head is held in the Frankfort plane†* of the subject's head. His head is then rechecked for orientation and for continued contact at both points. Using the height gauge, measure the vertical distance from the glabella landmark *†the most anterior point of the forehead between the brow ridges, in the midsagittal plane†* to vertex.

Turkey	Greece	Italy
N: 687	1034	1358
$\bar{X}$ : 8.76 cm; 3.45 in	9.13 cm; 3.59 in	8.56 cm; 3.37 in
SD: 0.92 cm; 0.36 in	0.80 cm; 0.31 in	0.77 cm; 0.30 in
V%: 10.51	8.80	9.03

### *Glabella-To-Vertex Height—NATO (Continued)*

#### **Similar Dimensions:**

None

#### **See Also:**

*Glabella-to-Wall Distance*

## **GLABELLA-TO-WALL DISTANCE**

#### **Reference: NATO**

Subject stands comfortably under the headboard with his head oriented in the Frankfort plane. The headboard slide is then adjusted so that its wall and ceiling surfaces rest snugly against the back and vertex *the top of the head in the midsagittal plane when the head is in the Frankfort plane* of the subject's head. His head is then rechecked for orientation and for continued contact at both points. Using the height gauge, measure the horizontal distance from the glabella landmark *the most anterior point of the forehead between the brow ridges, in the midsagittal plane* to the wall.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 687	1084	1358
$\bar{X}$ : 18.85 cm; 7.42 in	19.13 cm; 7.53 in	19.80 cm; 7.80 in
SD: 0.73 cm; 0.29 in	0.68 cm; 0.27 in	0.67 cm; 0.26 in
V%: 3.89 cm;	3.55	3.39

#### **Similar Dimensions:**

None

#### **See Also:**

*Glabella-to-Vertex Distance*

## **GLUTEAL ARC**

#### **Reference: KOREA**

Subject stands. Using the tape, measure the surface arc over the right buttock from the gluteal furrow to the line *the natural waistline, the level of greatest lateral indentation in the region of the abdomen* marked on the waist directly

**Gluteal Arc—KOREA (Continued)**

over the buttock.

N: 264  
X: 26.64 cm; 10.49 in  
SD: 2.46 cm; 0.97 in  
V%: 9.22

**Similar Dimensions:**

**Equivalent:**

USAF '50: *Gluteal Arc*  
USN: *Gluteal Arc*

**Not Equivalent:**

WAF RECRUITS. *Gluteal Arc* - [waist mark between omphalion and level of greatest indentation of waist]

**Indeterminable:**

None

**GLUTEAL ARC**

**Reference: USAF '50**

Subject stands. Using the tape, measure the surface arc over the right buttock from the gluteal furrow to the line of the natural waistline, the level of greatest lateral indentation in the region of the abdomen marked on the waist directly over the buttock.

N: 4057  
X: 29.75 cm; 11.71 in  
SD: 2.33 cm; 0.92 in  
V%: 7.83

**Similar Dimensions:**

**Equivalent:**

KOREA: *Gluteal Arc*  
USN: *Gluteal Arc*

**Gluteal Arc—USAF '50 (Continued)**

**Not Equivalent:**

WAF RECRUITS: *Gluteal Arc* - [waist mark between omphalion and level of greatest indentation of the waist]

**Indeterminable:**

None

**GLUTEAL ARC**

**Reference: USN**

Subject stands. Using the tape, measure the surface arc over the right buttock from the gluteal furrow to the line *the natural waistline, the level of greatest lateral indentation in the region of the abdomen* marked on the waist directly over the buttock.

N: 1549

$\bar{X}$ : 27.71 cm; 10.91 in

SD: 1.99 cm; 0.78 in

V%: 7.19

**Similar Dimensions:**

**Equivalent:**

KOREA: *Gluteal Arc*

USAF '50: *Gluteal Arc*

**Not Equivalent:**

WAF RECRUITS: *Gluteal Arc* - [waist mark between omphalion and level of greatest indentation of waist]

**Indeterminable:**

None

**GLUTEAL ARC**

**Reference: WAF RECRUITS**

**Gluteal Arc—WAF RECRUITS (Continued)**

Subject stands. Measure the surface arc over the right buttock from the marked line [not defined but sketch indicates waist mark between omphalion and level of greatest indentation of waist] on the waist to the gluteal furrow with the tape in a vertical plane.

N: 839  
 $\bar{X}$ : 29.08 cm; 11.45 in  
SD: 2.34 cm; 0.92 in  
V%: 8.04

**Similar Dimensions:**

Equivalent:

None

Not Equivalent:

KOREA: *Gluteal Arc - the level of greatest lateral indentation*  
USAF '50: *Gluteal Arc - the level of greatest lateral indentation*  
USN: *Gluteal Arc - the level of greatest lateral indentation*

Indeterminable:

None

**GLUTEAL FURROW HEIGHT**

**Reference: FAA**

Vertical distance from the lowest point of the transverse buttock crease [to the floor].

N: 678  
 $\bar{X}$ : 79.69 cm; 31.37 in  
SD: 4.24 cm; 1.67 in  
V%: 5.32

**Similar Dimensions:**

Equivalent:

KOREA: *Gluteal Furrow Height*  
NATO: *Gluteal Furrow Height*

***Gluteal Furrow Height—FAA (Continued)***

USAF '50: *Gluteal Furrow Height*  
USN: *Gluteal Furrow Height*  
WAF RECRUITS: *Gluteal Furrow Height*

Not Equivalent:

None

Indeterminable:

None

**GLUTEAL FURROW HEIGHT**

**Reference: KOREA**

Subject stands erect. Using the anthropometer, measure the vertical distance from the floor to the lowest point where the buttock curve and the back of the thigh join.

N: 264  
 $\bar{X}$ : 73.01 cm; 28.75 in  
SD: 3.33 cm; 1.31 in  
V%: 4.57

**Similar Dimensions:**

Equivalent:

FAA: *Gluteal Furrow Height*  
NATO: *Gluteal Furrow Height*  
USAF '50: *Gluteal Furrow Height*  
USN: *Gluteal Furrow Height*  
WAF RECRUITS: *Gluteal Furrow Height*

Not Equivalent:

None

Indeterminable:

None

## GLUTEAL FURROW HEIGHT

### Reference: NATO

Subject stands erect. Using the anthropometer, measure the vertical distance from the standing surface to the furrow where the gluteal curve intersects the back of the thigh.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 76.08 cm; 29.95 in	76.00 cm; 29.92 in	76.85 cm; 30.26 in
SD: 3.67 cm; 1.48 in	3.75 cm; 1.48 in	4.32 cm; 1.70 in
V%: 4.82	4.93	5.62

### Similar Dimensions:

#### Equivalent:

FAA: *Gluteal Furrow Height*  
KOREA: *Gluteal Furrow Height*  
USAF '50: *Gluteal Furrow Height*  
USN: *Gluteal Furrow Height*  
WAF RECRUITS: *Gluteal Furrow Height*

#### Not Equivalent:

None

#### Indeterminable:

None

## GLUTEAL FURROW HEIGHT

### Reference: USAF '50

Subject stands erect. Using the anthropometer, measure the vertical distance from the floor to the lowest point where the buttock curve and the back of the thigh join.

N: 4063  
 $\bar{X}$ : 80.18 cm; 31.57 in  
SD: 4.12 cm; 1.62 in  
V%: 5.14

***Gluteal Furrow Height—USAF '50 (Continued)***

**Similar Dimensions:**

**Equivalent:**

FAA: *Gluteal Furrow Height*  
KOREA: *Gluteal Furrow Height*  
NATO: *Gluteal Furrow Height*  
USN: *Gluteal Furrow Height*  
WAF RECRUITS: *Gluteal Furrow Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**GLUTEAL FURROW HEIGHT**

**Reference: USN**

Subject stands erect. Using the anthropometer, measure the vertical distance from the standing surface to the furrow where the gluteal curve intersects the back of the thigh.

N: 1549  
 $\bar{X}$ : 81.20 cm; 32.01 in  
SD: 4.00 cm; 1.57 in  
V%: 4.92

**Similar Dimensions:**

**Equivalent:**

FAA: *Gluteal Furrow Height*  
KOREA: *Gluteal Furrow Height*  
NATO: *Gluteal Furrow Height*  
USAF '50: *Gluteal Furrow Height*  
WAF RECRUITS: *Gluteal Furrow Height*

**Not Equivalent:**

None

*Gluteal Furrow Height—USN (Continued)*

Indeterminable:

None

**GLUTEAL FURROW HEIGHT**

**Reference: WAF RECRUITS**

Subject stands. Measure from the floor to the lowest point of the gluteal furrow below the right buttock with the anthropometer.

N: 848

$\bar{X}$ : 74.29 cm; 29.25 in

SD: 4.00 cm; 1.58 in

V%: 5.39

**Similar Dimensions:**

Equivalent:

FAA: *Gluteal Furrow Height*

KOREA: *Gluteal Furrow Height*

NATO: *Gluteal Furrow Height*

USAF '50: *Gluteal Furrow Height*

USN: *Gluteal Furrow Height*

Not Equivalent:

None

Indeterminable:

None

**GRANDE ENVERGURE [TOTAL SPAN]**

**Reference: FRANCE '65**

Sujet debout, au garde à vous, les deux bras étendus latéralement perpendiculairement au corps. Distance entre les extrémités des médus.

[The subject stands at attention, the two arms extended laterally and perpendicular to the body. Distance between the ends of the middle fingers.]

**Grande Envergure [Total Span]—FRANCE '65 (Continued)**

<b>Military Fighter Pilots</b>	<b>Military Transport Pilots</b>	<b>Civilian Transport Pilots</b>
N: 220	459	150
$\bar{X}$ : 178.89 cm; 70.42 in	178.72 cm; 70.36 in	179.31 cm; 70.59 in
SD: 6.75 cm; 2.65 in	6.73 cm; 2.66 in	6.03 cm; 2.39 in
V%: 3.77	3.79	3.33

**Similar Dimensions:**

**Equivalent:**

AAF: *Total Span*  
 ARMY ARMORED: *Total Span*  
 FAA: *Arm Span*  
 GENEVA: *Span*  
 HRDLICKA: *Finger Reach*  
 INDIA: *Maximum Span*  
 KOREA: *Span*  
 MARTIN: *Spannweite der Arme*  
 MONTAGU: *Span*  
 TUFTS: *Total Span*  
 USAF '50: *Span*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Span Akimbo*

**GREAT TROCHANTER [HEIGHT]**

**Reference: GENEVA**

†The subject stands erect on a horizontal and resisting plane surface . . . : no support is to be given by a vertical plane: the upper limbs are pendant, the palms of the hands turned inwards, and the fingers pointed vertically downwards, the heels in contact, and the axis of vision horizontal† Anatomical landmark: upper

**Great Trochanter [Height]—GENEVA (Continued)**

border of the great trochanter. †[T]he height of the anatomical landmark above the ground is to be determined.†

No Data Available

**Similar Dimensions:**

**Equivalent:**

MARTIN: *Hoehe des rechten grossen Rollhuegels ueber dem Boden*

MONTAGU: *Right Trochanterion Height*

NATO: *Trochanteric Height*

**Not Equivalent:**

WAC: *Hip Height - most lateral point on the greater trochanter of the femur*

WOMEN: *Hip Height - at the most prominent bony point in the region of the trochanter major*

**Indeterminable:**

None

**See Also:**

*Right Iliospinale Height*

**GRIP BREADTH; INSIDE**

**Reference: HAND**

Subject holds a cone around the largest circumference that he can grasp with his thumb and middle finger just touching. Record the diameter of the cone corresponding to this maximum circumference.

N: 27

$\bar{X}$ : 4.87 cm; 1.92 in

SD: 0.41 cm; 0.16 in

V%: 8.33

**Similar Dimensions:**

**Equivalent:**

***Grip Breadth; Inside—HAND (Continued)***

KOREA: *Grip Diameter (Inside)*  
USAF '50: *Grip Diameter (Inside)*

Not Equivalent:

None

Indeterminable:

None

**GRIP BREADTH; OUTSIDE**

**Reference: HAND**

Subject holds a cone at the largest circumference that he can grasp with his thumb and middle finger just touching. Using the sliding caliper, measure from the interphalangeal joint of the thumb to the knuckle of the middle finger.

N: 27  
X: 10.57 cm; 4.15 in  
SD: 0.76 cm; 0.30 in  
V%: 7.23

**Similar Dimensions:**

Equivalent:

KOREA: *Grip Diameter (Outside)*  
USAF '50: *Grip Diameter (Outside)*

Not Equivalent:

None

Indeterminable:

None

**GRIP DIAMETER (INSIDE)**

**Reference: KOREA**

***Grip Diameter (Inside)—KOREA (Continued)***

Subject holds a cone around the largest circumference that he can grasp with his thumb and middle finger just touching. Record the diameter of the cone corresponding to this maximum circumference.

N: 264  
 $\bar{X}$ : 4.76 cm; 1.87 in  
SD: 0.26 cm; 0.10 in  
V%: 0.55 [sic] [5.46]

**Similar Dimensions:**

Equivalent:

HAND: *Grip Breadth; Inside*  
USAF '50: *Grip Diameter (Inside)*

Not Equivalent:

None

Indeterminable:

None

**GRIP DIAMETER (INSIDE)**

**Reference: USAF '50**

Subject holds a cone around the largest circumference that he can grasp with his thumb and middle finger just touching. Record the diameter of the cone corresponding to this maximum circumference.

N: 4062  
 $\bar{X}$ : 4.82 cm; 1.90 in  
SD: 0.34 cm; 0.14 in  
V%: 7.12

**Similar Dimensions:**

Equivalent:

HAND: *Grip Breadth; Inside*  
KOREA: *Grip Diameter (Inside)*

***Grip Diameter (Inside)—USAF '50 (Continued)***

Not Equivalent:

None

Indeterminable:

None

**GRIP DIAMETER (OUTSIDE)**

**Reference: KOREA**

Subject holds a cone at the largest circumference that he can grasp with his thumb and middle finger just touching. Using the sliding caliper, measure from the joint of the first and second phalanges of the thumb to the knuckle of the middle finger (metacarpal-first phalanx joint).

N: 264

$\bar{X}$ : 9.77 cm; 3.85 in

SD: 0.49 cm; 0.19 in

V%: 0.03 [Sic] [5.02]

**Similar Dimensions:**

Equivalent:

HAND: Grip Breadth; Outside

USAF '50: Grip Diameter (Outside)

Not Equivalent:

None

Indeterminable:

None

**GRIP DIAMETER (OUTSIDE)**

**Reference: USAF '50**

Subject holds a cone at the largest circumference that he can grasp with his thumb and middle finger just touching. Using the sliding caliper, measure from

**Grip Diameter (Outside)—USAF '50 (Continued)**

the joint of the first and second phalanges of the thumb to the knuckle of the middle finger (metacarpal-first phalanx joint).

N: 4063  
 $\bar{X}$ : 10.39 cm; 4.09 in  
SD: 0.53 cm; 0.21 in  
V%: 5.07

**Similar Dimensions:**

Equivalent:

HAND: *Grip Breadth; Outside*  
KOREA: *Grip Diameter (Outside)*

Not Equivalent:

None

Indeterminable:

None

**GROESSTE BREITE DES KOPFES [HEAD BREADTH]**

**Reference: MARTIN**

Geradlinige Entfernung der beiden Eurya (derjenige Punkt an der Seitenrand des Kopfes, der am meisten seitwaerts vorragt) voneinander, d.h. groesste Breite senkrecht zur Mediansagittal-Ebene, wo sie sich findet. Tasterzirkel. Die Messpunkte muessen in einer Horizontal- und Frontal-Ebene liegen.

[Straight line distance between both Eurya (that point on the side of the head which protrudes most laterally), that is the maximum breadth perpendicular to the mid-sagittal plane, wherever it is found. Spreading Caliper. The landmarks must be in the same horizontal and frontal planes.]

No Data Available

**Similar Dimensions:**

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*

**Groesste Breite des Kopfes [Head Breadth]—MARTIN (Continued)**

COMAS: Head Breadth  
FRANCE '65: *Largeur maximum de la tête*  
HRDIJCKA: Head Breadth  
INDIA: Head [Width]  
JAPAN: Head Breadth  
KOREA: Head Breadth  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: Maximum Head Breadth  
NATO: Head Breadth  
NAVY RECRUITS: Head Breadth  
NORWAY: Maximum Head Breadth  
THAI: Head Breadth  
TUFTS: Breadth [Head]  
USAF '50: Head Breadth  
USMC: Head Breadth  
USN: Head Breadth  
VIETNAM: Head Breadth  
WAC: Head Breadth  
WAF RECRUITS: Head Breadth

Not Equivalent:

None

Indeterminable:

None

**GROESSTE BREITE ZWISCHEN DEN DARMBEINKAEMMEN  
[MAXIMUM BI-CRISTAL BREADTH]**

Reference: MARTIN

Geradlinige Entfernung der beiden Iliocristalia: *†derjenige Punkt der Crista iliaca, der bei aufrechter Koerperhaltung am meisten seitlich vorspringt voneinander. Strangenzirkel. Das Mass wird also aussen am Beckenkamm (d.h. am Labium externum der Crista iliaca) gemessen und das Instrument leicht angedrueckt.*

[Straight line distance between both iliocristalia *†that point on the iliac crest which protrudes most laterally when standing erect†*. Beam Caliper. The measurement is taken laterally on the pelvic rim (that is, on the external lip of the iliac crest) with slight pressure on the instrument.]

No Data Available

**Groesste Breite zwischen den Darmbeinkaemmen**  
**[Maximum Bi-Cristal Breadth]—MARTIN (Continued)**

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Bi-iliac* - A firm pressure dimension  
ARMY ARMORED: *Bi-iliac* - A firm pressure dimension  
ARMY QM: *Bi-iliac* - Pressure  
HRDLICKA: *Breadth of Pelvis* - sufficient pressure to feel bone  
TUFTS: *Bi-iliac* - A firm pressure dimension  
WASP: *Bi-iliac* - A firm pressure dimension

**Indeterminable:**

In the following references pressure is not specified.

BULGARIA: *Bicristal Breadth*  
COMAS: *Bi-iliac or Pelvic Breadth*  
GENEVA: *Bi-Cristal Diameter*  
MONTAGU: *Bi-iliac or Pelvic Breadth*

**See Also:**

*Bi-Spinal Diameter*  
*Bi-Trochanteric Breadth - Bone*  
*Hip Breadth*

**GROESSTE LAENGE DES KOPFES [HEAD LENGTH]**

**Reference: MARTIN**

Geradlinige Entfernung der Glabella †diejenige Erhebung im unteren Teil der Stirn, die oberhalb der Nasenwurzel und zwischen den haereuen Augenbrauen gelegen ist. Als Messpunkt dient der in der Median-Sagittal-Ebene am meisten vorspringende Punkt † vom Opisthocranium, d.h. von dem am meisten hervorragenden Punkt des Hinterhauptes in der Median-Sagittal-Ebene. Tasterzirkel.

[Straight line distance from glabella †that protrusion in the lower part of the forehead which is situated above the nasal root and between the bony brows. As the measuring point the most forward protruding point in the mid-sagittal plane†

***Groesste Laenge des Kopfes [Head Length]—MARTIN (Continued)***

to opistrocranium, that is from the most protrusive point of the back of the head in the mid-sagittal plane. Spreading Caliper.]

No Data Available

**Similar Dimensions:**

**Equivalent:**

ARMY QM: Head Length  
COMAS: Head Length  
FRANCE '65: *Longueur maximum de la tête*  
MONTAGU: Maximum Head Length  
NORWAY: Maximum Head Length  
THAI: Head Length  
TUFTS: Head Length  
VIETNAM: Head Length  
WAC: Head Length  
WAF RECRUITS: Head Length

**Not Equivalent:**

HRDLICKA: Head Length - without regard to the midline posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line. They are, therefore, considered *Not Equivalent*.

ARMY '66: Head Length  
JAPAN: Head Length  
KOREA: Head Length  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: Head Length  
NAVY RECRUITS: Head Length  
USAF '50: Head Length  
USMC: Head Length  
USN: Head Length

**Indeterminable:**

ARMY AVIATORS: Head Length - [landmarks are not specified]

**See Also:**

*Head Diagonal: Nuchale to Pronasale*

**GROESSTER UMFANG DES RECHTEN OBERARMES BEI BEUGUNG  
[MAXIMUM CIRCUMFERENCE OF THE FLEXED RIGHT UPPER ARM]**

**Reference:** MARTIN

†Das Bandmass wird an der Stelle der staerksten Vorwoelbung des M. biceps . . . um den . . . Arm gelegt† bei stark gebeugtem Arm, d.h. bei moeglichster Kontraktion des M. biceps. Der Ellbogen ist dabei nach aussen gerichtet.

[†The tape is placed . . . around the . . . arm† at the maximum protrusion of the biceps muscle with the arm strongly bent, that is at the greatest contraction of the biceps muscle. The elbow is extended laterally.]

No Data Available

**Similar Dimensions:**

Equivalent:

ARMY '66: *Biceps Circumference, Flexed*  
BULGARIA: *Biceps Circumference Flexed*  
GENEVA: *Circumference of the Upper Arm [Biceps Flexed]*  
JAPAN: *Biceps Circumference (Flexed)*  
KOREA: *Biceps Circumference (Flexed)*  
NATO: *Biceps Circumference, Flexed*  
NAVY RECRUITS: *Biceps Circumference (Flexed)*  
USAF '50: *Biceps Circumference (Flexed)*  
USMC: *Biceps Circumference (Flexed)*  
USN: *Biceps Circumference-Flexed*  
WAF RECRUITS: *Biceps Circumference (Flexed)*

Not Equivalent:

THOUSAND AVIATORS: *Biceps Contracted [Circumference]* - midpoint of the arm between the right acromial process and olecranon.

Indeterminable:

None

**See Also:**

*Biceps Circumference, Relaxed*

## GROESSTER UMFANG DES RECHTEN OBERARMS BEI STRECKUNG [RIGHT BICEPS CIRCUMFERENCE, EXTENDED]

Reference: MARTIN

Das Bandmass wird an der Stelle der staerksten Vorwoelbung des M. biceps horizontal um den haengenden Arm gelegt.... Der Muskel darf nicht kontrahiert werden.

[The tape is placed horizontally around the hanging arm at the maximum protrusion of the biceps muscle.... The muscle must not be contracted.]

No Data Available

### Similar Dimensions:

Equivalent:

BULGARIA: *Biceps Circumference Extended*

FAA: *Upper-Arm Circumference*

GENEVA: *Circumference of the Upper Arm*

MONTAGU: *Maximum Circumference of the Right Arm*

WASP: *Upper Arm Circumference*

Not Equivalent:

ARMY '66: *Biceps Circumference, Relaxed* - midway between the shoulder and the elbow

ARMY QM: *Lower Upper Arm Circumference* - one half inch above the maximum prominence of the entepicondylar process

ARMY QM: *Middle Upper Arm Circumference* - midway between the axilla and the . . . cubital fossa

FRANCE '65: *Périmètre maximum du membre supérieur* - [at the inferior insertion of the deltoid muscle]

NAVY RECRUITS: *Biceps Circumference, Relaxed* - midway between the shoulder and the elbow

NATO: *Biceps Circumference, Extended* - at the landmark †maximum protrusion of the biceps muscle . . . elbow to a right angle . . . tenses the biceps

THAI: *Upper Arm Circumference* - mid-way between shoulder and elbow

THOUSAND AVIATORS: *Biceps Resting [Circumference]* - midpoint . . . between the right acromial process and olecranon

USMC: *Biceps Circumference, Relaxed* - midway between the shoulder and the elbow

VIETNAM: *Upper Arm Circumference* - mid-way between shoulder and elbow

WAC: *Upper Arm Circumference* - midway between the shoulder and elbow

*Groesster Umfang des rechten Oberarms bei Streckung*  
[Right Biceps Circumference, Extended]—MARTIN (Continued)

Indeterminable:

None

See Also:

*Biceps Circumference, Flexed*

**GROESSTER UMFANG DES RECHTEN OBERSCHENKELS**  
**[RIGHT THIGH CIRCUMFERENCE]**

Reference: MARTIN

Das Bandmass wird bei leicht gespreizten Beinen (die Fersen ca. 5-10 cm voneinander entfernt), an der Stelle der staerksten medialen Ausladung der Muskulatur unterhalb der Nates, nicht in die Glutaealfalte selbst, horizontal um den rechten Oberschenkel gelegt.

[With the legs slightly apart (heels about 5-10 cm apart), the tape is placed horizontally around the right thigh at the greatest medial protrusion of the muscles below the crotch but not in the gluteal furrow.]

No Data Available

Similar Dimensions:

Equivalent:

BULGARIA: *Thigh Circumference*  
WOMEN: *Thigh Girth, Maximum*

Not Equivalent:

AAF: *Thigh Circumference* - halfway between crotch and knee  
ARMY '66: *Upper Thigh Circumference* - just below the gluteal furrow  
ARMY QM: *Crotch Thigh Circumference* - through the gluteal fold  
ARMY QM: *Middle Thigh Circumference* - midway between . . . crotch and tibiale  
FAA: *Thigh Circumference* - juncture of the upper one-third and distal two-thirds  
FRANCE '65: *Périmètre maximum de la cuisse* - [just below the gluteal furrow]  
GENEVA: *Maximum Circumference of the Thigh* - at the level of the gluteal

**Groesster Umfang des rechten Oberschenkels  
[Right Thigh Circumference]—MARTIN (Continued)**

fold

JAPAN: *Thigh Circumference* - just below . . . the gluteal furrow

KOREA: *Thigh Circumference* - just below . . . the gluteal furrow

MONTAGU: *Maximum Circumference of the Right Thigh* - tape in gluteal fold

NATO: *Upper Thigh Circumference* - as high in the crotch as possible

NAVY RECRUITS: *Upper Thigh Circumference* - just below the gluteal furrow

THAI: *Crotch-Thigh Circumference* - just below . . . (gluteal furrow)

USAF '50: *Thigh Circumference* - just below . . . the gluteal furrow

USMC: *Upper Thigh Circumference* - just below the gluteal furrow

USN: *Upper Thigh Circumference* - as high in the crotch as possible

VIETNAM: *Crotch-Thigh Circumference* - just below . . . (gluteal furrow)

WAC: *Mid Thigh Circumference* - in the gluteal furrow

WAC: *Thigh Circumference at Crotch* - in the gluteal fold

WAF: *Thigh Circumference* - as high up as possible in the crotch, without including any buttock

WASP: *Thigh Circumference* - halfway between crotch and knee

WOMEN: *Midway Thigh Girth* - halfway between . . . the trochanter major and tibiale

Indeterminable:

None

See Also:

*Lower Thigh Circumference*

*Upper Thigh Circumference, Sitting*

**GROESSTER UMFANG DES RECHTEN UNTERARMES  
[MAXIMUM RIGHT FOREARM CIRCUMFERENCE]**

Reference: MARTIN

Das Bandmass wird an der Stelle der staerksten Ausladung wenig unterhalb des Ellenbogengelenkes horizontal um den haengenden Arm gelegt. Die Hand soll gestreckt und nicht zur Faust geballt werden.

[The tape is wrapped horizontally around the hanging arm at the greatest protrusion, a little below the elbow. The hand shall be extended and not clenched.]

No Data Available

**Groesster Umfang des rechten Unterarmes**  
**[Maximum Right Forearm Circumference]—MARTIN (Continued)**

**Similar Dimonsiens:**

**Equivalent:**

GENEVA: *Maximum Circumference of the Forearm*

MONTAGU: *Maximum Circumference of the Right Forearm*

**Not Equivalent:**

ARMY QM: *Middle Forearm Circumference* - midway between cubital fossa and . . . wrist

ARMY QM: *Upper Forearm Circumference* - superior border of the tape crosses radiale

FAA: *Lower-Arm Circumference* - the maximum circumference of the forearm

FRANCE '65: *Périmètre maximum de l'avant-bras* - [at the level of the most protruding muscles of the forearm]

NATO: *Lower Arm Circumference, Extended* - right arm extended . . . circumference . . . at the level of maximum protrusion of the forearm . . . when . . . arm to a right angle . . . maximum fist

WAC: *Forearm Circumference* - maximum horizontal circumference

WASP: *Forearm Circumference* - halfway between elbow and wrist

**Indeterminable:**

None

**See Also:**

*Forearm Circumference, Flexed*

**GROESSTER UMFANG DES RECHTEN UNTERSCHENKELS**  
**[RIGHT CALF CIRCUMFERENCE]**

**Reference: MARTIN**

Das Bandmass wird an der Stelle der staerksten Ausladung der Wadenmuskulatur horizontal um den Unterschenkel gelegt.

[The tape is placed horizontally around the lower leg at the greatest protrusion of the calf muscles.]

No Data Available

*Groesster Umfang des Rechten Unterschenkels*  
[Right Calf Circumference]—MARTIN (Continued)

**Similar Dimensions:**

**Equivalent:**

AAF: Calf Circumference  
ARMY '66: Calf Circumference  
ARMY ARMORED: Calf Circumference  
ARMY QM: Calf Circumference  
FAA: Calf Circumference  
FRANCE '65: *Périmètre maximum de la jambe*  
GENEVA: Circumference of the Calf of the Leg  
JAPAN: Calf Circumference  
KOREA: Calf Circumference  
NATO: Calf Circumference  
NAVY RECRUITS: Calf Circumference  
THAI: Calf Circumference  
THOUSAND AVIATORS: Calf Circumference  
USAF '50: Calf Circumference  
USMC: Calf Circumference  
USN: Calf Circumference  
VIETNAM: Calf Circumference  
WAF RECRUITS: Calf Circumference  
WASP: Calf Circumference  
WOMEN: Calf Girth

**Not Equivalent:**

HRDLICKA: Girth of Calf - leg forms a little larger than a right angle with thigh

**Indeterminable:**

None

## HALF BACK TO WRIST

Reference: AUSTRALIA

With the upper arm held at approximately a 45 degree angle forward from the body and the forearm at right angles to the upper arm, the measurement is taken in a horizontal plane, from the center of the back over the elbow to the wrist bone.

N: 3431  
 $\bar{X}$ : 79.21 cm; 31.19 in  
SD: 3.95 cm; 1.56 in  
V%: [5.0]

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

Reference dimension description does not describe arm position.

ARMY '66: *Sleeve Length*  
ARMY AVIATORS: *Sleeve Length*  
ARMY QM: *Sleeve Length*  
JAPAN: *Sleeve Length (Spine-to-Wrist)*  
KOREA: *Sleeve Length (Spine-to-Wrist)*  
NATO: *Sleeve Length (Spine-to-Wrist)*  
NAVY RECRUITS: *Sleeve Length*  
THAI: *Sleeve Length*  
USAF '50: *Sleeve Length (Spine-to-Wrist)*  
USMC: *Sleeve Length*  
USN: *Sleeve Length*  
VIETNAM: *Sleeve Length*  
WAF RECRUITS: *Sleeve Length*

### See Also:

*Sleeve Length (Spine-to-Elbow)*  
*Sleeve Length (Spine-to-Scye)*

## HALFWAY TO HIP CIRCUMFERENCE

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon.† †The arms were raised while the tape was being adjusted and then lowered for the measurement† Measurement taken when tape is passed around body midway between †the minimum circumference, horizontal, between the superior borders of the hips and the inferior borders of the ribs† and †the circumference when the tape is placed horizontally and passed over the two trochanterion†.

N: 8520  
 $\bar{X}$ : 86.06 cm; 32.88 in  
SD: 7.58 cm; 2.98 in  
V%: [8.81]

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

ARMY '66: *Hip Circumference*—at the level of the greatest protrusion of the buttock muscles

ARMY AVIATORS: *Seat Circumference*—at the level of the maximum protrusion of the buttocks

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips

FAA: *Buttocks Circumference*—at the level of greatest protrusion of the buttocks

FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]

JAPAN: *Buttock Circumference*—the level of the greatest rearward protrusion of the buttocks

KOREA: *Buttock Circumference*—the level of the greatest rearward protrusion of the buttocks

MONTAGU: *Maximum Gluteo-Pubic Circumference*—*Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

NATO: *Buttock Circumference*—at †maximum posterior protrusion of the buttock

NAVY RECRUITS: *Hip Circumference*—at the level of the greatest protrusion of the buttock muscles

THAI: *Hip Circumference*—at level of greatest buttock protrusion

USAF '50: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks

#### *Halfway To Hip Circumference—WAC (Continued)*

USMC: *Hip Circumference*—at the level of the greatest protrusion of the buttock muscles

USN: *Buttock Circumference*—at the level of †maximum posterior protrusion of the buttock

VIETNAM: *Hip Circumference*—at level of greatest buttock protrusion

WAC: *Hip Circumference*—over the two trochantions

WAF RECRUITS: *Buttocks Circumference*—over the area of the most posterior projection of the buttocks

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Abdominal—Extension Girth*  
*Buttock Circumference, Sitting*  
*Waist Circumference*

### HAND BREADTH

Reference: AAF

Right hand, fingers extended and together, palm up. Arms of caliper parallel to axis of fingers. Distance between radial (lateral) projection of distal end of second metacarpal, and ulnar (medial) projection of distal end of fifth metacarpal. Firm contact.

<i>Cadets</i>	<i>Gunners</i>
N: 2955	582
Median: 8.61 cm; 3.41 in	8.57 cm; 3.41 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*

*Hand Breadth—AAF (Continued)*

BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

Reference: ARMY '66

Subject sits, with his right hand and fingers extended, palm up. The breadth of the hand is measured at the level of the knuckles (distal ends of the metacarpal bones). Sliding calipers are used.

N: 6681  
 $\bar{X}$ : 8.89 cm; 3.50 in  
SD: 0.48 cm; 0.19 in  
V%: 5.52

*Hand Breadth—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

### Reference: ARMY ARMORED

Right hand, fingers extended and together, palm up. Arms of caliper parallel to axis of fingers. Distance between radial (lateral) projection of distal end of second metacarpal, and ulnar (medial) projection of distal end of fifth metacarpal. Firm contact.

Reference cites AAF data for this dimension.

### Similar Dimensions:

#### Equivalent:

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

#### Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

#### Indeterminable:

None

*Hand Breadth—ARMY ARMORED (Continued)*

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

**Reference: ARMY AVIATORS**

The maximum width of the right hand at the base of the fingers.

N: 500  
 $\bar{X}$ : 8.84 cm; 3.48 in  
SD: 0.41 cm; 0.16 in  
V%: [4.64]

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

*Hand Breadth—ARMY AVIATORS (Continued)*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb

FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]

HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

Reference: ARMY QM

With the palm up and the fingers extended, measure the maximum breadth of the hand across the metacarpal-phalangeal joints at the base of the fingers. Firm pressure.

N: 24488

$\bar{X}$ : 8.67 cm; 3.41 in

SD: 0.48 cm; 0.19 in

V%: [5.54]

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*

ARMY '66: *Hand Breadth*

ARMY ARMORED: *Hand Breadth*

ARMY AVIATORS: *Hand Breadth*

BARTER: *Hand Breadth at Metacarpal 2*

FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*

HANDS - FEMALE: *Hand Breadth; Metacarpale*

HANDS - MALE: *Hand Breadth; Metacarpale*

JAPAN: *Hand Breadth*

KOREA: *Hand Breadth at Metacarpale*

*Hand Breadth—ARMY QM (Continued)*

MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpals*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLIČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

**Reference: HRDLIČKA**

The most expressive breadth of the hand is that across the palm, at nearly right angles to the length, from the index finger-thumb angle to the middle of the ulnar edge of the palm. ...With left hand in full extension...

No Data Available

*Hand Breadth—HRDLIČKA (Continued)*

**Similar Dimensions:**

**Equivalent:**

AUSTRALIA: *Hand Width*  
FRANCE '65: *Largeur de la paume*

**Not Equivalent:**

AAF: *Hand Breadth* — distal end of second metacarpal . . . distal end of fifth metacarpal  
ARMY '66: *Hand Breadth* — distal ends of the metacarpal bones  
ARMY ARMORED: *Hand Breadth* — distal end of second metacarpal . . . distal end of fifth metacarpal  
ARMY AVIATORS: *Hand Breadth* — maximum width . . . at the base of the fingers  
ARMY QM: *Hand Breadth* — across the metacarpal-phalangeal joints  
BARTER: *Hand Breadth at Metacarpal 2* — across the . . . metacarpal-phalangeal joints  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens* — [widest points at the heads of the first and fifth metacarpals]  
HANDS - FEMALE: *Hand Breadth; Metacarpale* — across the back of her hand . . . between metacarpal-phalangeal joints II and V  
HANDS - MALE: *Hand Breadth; Metacarpale* — across the back of the hand . . . between metacarpal-phalangeal joints II and V  
JAPAN: *Hand Breadth at Metacarpale* — across the distal ends of the metacarpal bones  
KOREA: *Hand Breadth at Metacarpale* — across the distal ends of the metacarpal bones  
MARTIN: *Breite der rechten Hand* — [between medial metacarpale and lateral metacarpale]  
MONTAGU: *Hand Breadth* — second metacarpo-phalangeal junction to . . . fifth metacarpo-phalangeal junction  
NATO: *Hand Breadth at Metacarpale* — across the distal ends of the metacarpal bones  
NAVY RECRUITS: *Hand Breadth* — distal ends of the metacarpal bones  
THAI: *Hand Breadth* — metacarpal-phalangeal joints  
USAF '50: *Hand Breadth at Metacarpale* — across the distal ends of the metacarpal bones  
USMC: *Hand Breadth* — distal ends of the metacarpal bones  
USN: *Hand Breadth* — across the distal ends of the metacarpal bones  
VIETNAM: *Hand Breadth* — metacarpal-phalangeal joints  
WAC: *Hand Breadth* — across the metacarpal-phalangeal joints  
WAF RECRUITS: *Hand Breadth at Metacarpale* — across the distal ends of the metacarpal bones

*Hand Breadth—HRDLIČKA (Continued)*

WASP: *Hand Breadth* — between . . . distal end of second metacarpal, and  
distal . . . end of fifth metacarpal

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

Reference: JAPAN

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying across his palm, measure the maximum breadth across the distal ends of the metacarpal bones (knuckles).

N: 236  
 $\bar{X}$ : 8.61 cm; 3.39 in  
SD: 0.53 cm; 0.21 in  
V%: 6.20

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*

*Hand Breadth—JAPAN (Continued)*

USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

Reference: MONTAGU

(Sliding Compass). From the radial side of the second metacarpo-phalangeal junction to the ulnar side of the fifth metacarpo-phalangeal junction.

No Data Available

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*

*Hand Breadth—MONTAGU (Continued)*

JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

Reference: NAVY RECRUITS

Subject sits, with his right hand and fingers extended, palm up. The breadth of the hand is measured at the level of the knuckles (distal ends of the metacarpal bones). Sliding calipers are used.

N: 4095  
 $\bar{X}$ : 8.96 cm; 3.53 in  
SD: 0.58 cm; 0.23 in  
V%: 6.49

*Hand Breadth—NAVY RECRUITS (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

### Reference: THAI

With right hand extended palm up, measured as maximum breadth across base of the fingers (metacarpal-phalangeal joints).

N: 2950  
 $\bar{X}$ : 8.5 cm; 3.4 in  
SD: 0.4 cm; 0.2 in  
V%: 4.7

### Similar Dimensions:

#### Equivalent:

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

#### Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

*Hand Breadth—THAI (Continued)*

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

Reference: USMC

Subject sits, with his right hand and fingers extended, palm up. The breadth of the hand is measured at the level of the knuckles (distal ends of the metacarpal bones). Sliding calipers are used.

N: 2008

$\bar{X}$ : 8.86 cm; 3.49 in

SD: 0.43 cm; 0.17 in

V%: 4.88

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*

ARMY '66: *Hand Breadth*

ARMY ARMORED: *Hand Breadth*

ARMY AVIATORS: *Hand Breadth*

ARMY QM: *Hand Breadth*

BARTER: *Hand Breadth at Metacarpal 2*

FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*

HANDS - FEMALE: *Hand Breadth; Metacarpale*

HANDS - MALE: *Hand Breadth; Metacarpale*

JAPAN: *Hand Breadth*

KOREA: *Hand Breadth at Metacarpale*

MARTIN: *Breite der rechten Hand*

MONTAGU: *Hand Breadth*

NATO: *Hand Breadth at Metacarpale*

NAVY RECRUITS: *Hand Breadth*

THAI: *Hand Breadth*

USAF '50: *Hand Breadth at Metacarpale*

USN: *Hand Breadth*

*Hand Breadth—USMC (Continued)*

VIETNAM: *Hand Breadth*

WAC: *Hand Breadth*

WAF RECRUITS: *Hand Breadth*

WASP: *Hand Breadth*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb

FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]

HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

Reference: USN

Subject's right hand is held stiffly, palm upward, the fingers extended and together. The thumb is held away from the hand. Using the sliding caliper, measure the distance across the distal ends of the metacarpal bones.

N: 1549

$\bar{X}$ : 8.96 cm; 3.53 in

SD: 0.43 cm; 0.17 in

V%: 4.75

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*

ARMY '66: *Hand Breadth*

ARMY ARMORED: *Hand Breadth*

ARMY AVIATORS: *Hand Breadth*

ARMY QM: *Hand Breadth*

*Hand Breadth—USN (Continued)*

BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH

Reference: VIETNAM

With right hand extended, palm up, measured as maximum breadth across base of the fingers (metacarpal-phalangeal joints).

*Hand Breadth—VIETNAM (Continued)*

N: 2125  
 $\bar{X}$ : 8.0 cm; 3.14 in  
SD: 0.4 cm; 0.15 in  
V%: 5.0

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

*Hand Breadth—VIETNAM (Continued)*

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

Reference: WAC

†Subject sat erect with eyes on an imaginary horizon† and asked to extend left hand, palm up and fingers extended† Calipers held above the hand with points extending downward. Measurement taken as maximum breadth across the metacarpal-phalangeal joints (2nd to 5th).

N: 8505  
 $\bar{X}$ : 7.70 cm; 3.03 in  
SD: 0.51 cm; 0.20 in  
V%: [6.62]

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

*Hand Breadth—V AC (Continued)*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb

FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]

HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH**

Reference: WASP

Right hand, fingers extended and together, palm up. Arms of caliper parallel to axis of fingers. Distance between radial (lateral) projection of distal end of second metacarpal, and ulnar (medial) projection of distal end of fifth metacarpal. Firm contact.

*Women Pilots*

N: 440

$\bar{X}$ : 7.72 cm; 3.04 in

SD: NDA

V%: NDA

*Flying Nurses*

142

7.62 cm; 3.00 in

NDA

NDA

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*

ARMY '66: *Hand Breadth*

ARMY ARMORED: *Hand Breadth*

ARMY AVIATORS: *Hand Breadth*

ARMY QM: *Hand Breadth*

BARTER: *Hand Breadth at Metacarpal 2*

FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*

*Hand Breadth—WASP (Continued)*

HANDS - FEMALE: *Hand Breadth; Metacarpale*

HANDS - MALE: *Hand Breadth; Metacarpale*

JAPAN: *Hand Breadth*

KOREA: *Hand Breadth at Metacarpale*

MARTIN: *Breite der rechten Hand*

MONTAGU: *Hand Breadth*

NATO: *Hand Breadth at Metacarpale*

NAVY RECRUITS: *Hand Breadth*

THAI: *Hand Breadth*

USAF '50: *Hand Breadth at Metacarpale*

USMC: *Hand Breadth*

USN: *Hand Breadth*

VIETNAM: *Hand Breadth*

WAC: *Hand Breadth*

WAF RECRUITS: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb

FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]

HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

## **HAND BREADTH AT METACARPAL 2**

**Reference: BARTER**

The hand is placed palm upward on the table, with the fingers outstretched and together. The thumb is held away from the hand. The measurement is taken across the hand from the area of the metacarpal-phalangeal joint of the second finger to the metacarpal-phalangeal joint of the fifth finger with sliding caliper.

*Hand Breadth at Metacarpal 2—BARTER (Continued)*

N: 100  
 $\bar{X}$ : 8.96 cm; 3.53 in  
SD: 0.36 cm; 0.14 in  
V%: [4.02]

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

*Hand Breadth at Metacarpal 2—BARTER (Continued)*

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH AT METACARPALE**

**Reference: KOREA**

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying across his palm, measure the maximum breadth across the distal ends of the metacarpal bones (knuckles).

N: 264  
X: 8.36 cm; 3.29 in  
SD: 0.37 cm; 0.15 in  
V%: 4.47

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

*Hand Breadth at Metacarpale—KOREA (Continued)*

Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb

FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]

HRDLIČKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH AT METACARPALE**

Reference: NATO

Subject's right hand is held stiffly, palm upward, the fingers extended and together. The thumb is held away from the hand. Using the sliding caliper, measure the distance across the distal ends of the metacarpal bones.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 8.65 cm; 3.41 in	8.77 cm; 3.45 in	8.89 cm; 3.50 in
SD: 0.42 cm; 0.17 in	0.42 cm; 0.17 in	0.44 cm; 0.17 in
V%: 4.90	4.82	5.00

Similar Dimensions:

Equivalent:

AAF: *Hand Breadth*

ARMY '66: *Hand Breadth*

ARMY ARMORED: *Hand Breadth*

ARMY AVIATORS: *Hand Breadth*

ARMY QM: *Hand Breadth*

BARTER: *Hand Breadth at Metacarpal 2*

FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*

HANDS - FEMALE: *Hand Breadth; Metacarpale*

HANDS - MALE: *Hand Breadth; Metacarpale*

*Hand Breadth at Metacarpale—NATO (Continued)*

JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH AT METACARPALE

**Reference:** USAF '50

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying across his palm, measure the maximum breadth across the distal ends of the metacarpal bones (knuckles).

N: 4058  
 $\bar{X}$ : 8.83 cm; 3.48 in  
SD: 0.411 cm; 0.16 in  
V%: 4.65

*Hand Breadth at Metacarpale—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH AT METACARPALE

### Reference: WAF RECRUITS

The subject's hand is extended with the palm up. Place the bar of the sliding caliper across the distal ends of the metacarpal bones and measure the width with light contact.

N: 851  
 $\bar{X}$ : 7.66 cm; 3.02 in  
SD: 0.49 cm; 0.19 in  
V%: 6.42

### Similar Dimensions:

#### Equivalent:

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*  
BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
HANDS - MALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WASP: *Hand Breadth*

#### Not Equivalent:

AUSTRALIA: *Hand Width* — maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume* — [the widest points of the inner and outer edges of the palm]

*Hand Breadth at Metacarpale—WAF RECRUITS (Continued)*

HRDLICKA: *Hand Breadth* — from the index finger-thumb angle to the middle of the ulnar edge of the palm

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH AT THUMB**

Reference: BARTER

The hand is placed palm upward on the table with the fingers outstretched and together. The thumb is held loosely against the side of the hand. The measurement is taken across the hand, at right angles to the long axis, from the metacarpal-phalangeal joint of the first digit to the ulnar side of the hand with sliding calipers.

N: 100

$\bar{X}$ : 10.58 cm; 4.17 in

SD: 0.51 cm; 0.20 in

V%: [4.82]

Similar Dimensions:

Equivalent:

KOREA: *Hand Breadth at Thumb*  
USAF '50: *Hand Breadth at Thumb*  
USN: *Hand Breadth at Thumb*  
WAF RECRUITS: *Hand Breadth at Thumb*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hand Breadth*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH AT THUMB

Reference: KOREA

Subject's right hand is extended, palm up, with the thumb lying along side and in the plane of the palm. With the bar of the sliding caliper resting on the palm and the caliper's fixed arm at the knuckle (the joint of the metacarpal bone and the first phalanx) of the thumb, measure the breadth at right angles to the long axis of the hand.

N: 264  
 $\bar{X}$ : 9.81 cm; 3.86 in  
SD: 0.49 cm; 0.19 in  
V%: 5.06

Similar Dimensions:

Equivalent:

BARTER: *Hand Breadth at Thumb*  
USAF '50: *Hand Breadth at Thumb*  
USN: *Hand Breadth at Thumb*  
WAF RECRUITS: *Hand Breadth at Thumb*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hand Breadth*  
*Hand Breadth; Metacarpale, Minimum*

## HAND BREADTH AT THUMB

Reference: USAF '50

Subject's right hand is extended, palm up, with the thumb lying along side and in the plane of the palm. With the bar of the sliding caliper resting on the palm and the caliper's fixed arm at the knuckle (the joint of the metacarpal bone and the first phalanx) of the thumb, measure the breadth at right angles to the long axis of the hand.

*Hand Breadth at Thumb—USAF '50 (Continued)*

N: 4062  
 $\bar{X}$ : 10.35 cm; 4.07 in  
SD: 0.53 cm; 0.21 in  
V%: 5.16

**Similar Dimensions:**

**Equivalent:**

BARTER: *Hand Breadth at Thumb*  
KOREA: *Hand Breadth at Thumb*  
USN: *Hand Breadth at Thumb*  
WAF RECRUITS: *Hand Breadth at Thumb*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Breadth*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH AT THUMB**

**Reference: USN**

Subject's right hand is extended, palm up, with the thumb lying along side and in the plane of the palm. With the bar of the sliding caliper resting on the palm and the caliper's fixed arm at the knuckle (the joint of the metacarpal bone and the first phalanx) of the thumb, measure the breadth at right angles to the long axis of the hand.

N: 1549  
 $\bar{X}$ : 10.66 cm; 4.20 in  
SD: 0.49 cm; 0.19 in  
V%: 4.63

*Hand Breadth at Thumb--USN (Continued)*

**Similar Dimensions:**

**Equivalent:**

BARTER: *Hand Breadth at Thumb*  
KOREA: *Hand Breadth at Thumb*  
USAF '50: *Hand Breadth at Thumb*  
WAF RECRUITS: *Hand Breadth at Thumb*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Breadth*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH AT THUMB**

**Reference: WAF RECRUITS**

The subject's hand is extended, palm up. With the bar of the sliding caliper resting on the palm, measure the maximum width with light contact at right angles to the longitudinal axis of the hand. The fixed arm of the caliper is placed at the metacarpal-phalangeal joint of the thumb.

N: 844  
 $\bar{X}$ : 9.18 cm; 3.61 in  
SD: 0.59 cm; 0.23 in  
V%: 6.39

**Similar Dimensions:**

**Equivalent:**

BARTER: *Hand Breadth at Thumb*  
KOREA: *Hand Breadth at Thumb*  
USAF '50: *Hand Breadth at Thumb*  
USN: *Hand Breadth at Thumb*

*Hand Breadth at Thumb—WAF RECRUITS (Continued)*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hand Breadth*

*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH; METACARPALE**

Reference: HANDS-FEMALE

Subject's right hand is extended, palm down, thumb held away from the fingers. With the bar of the sliding caliper lying across the back of her hand, measure the breadth of the hand between metacarpal-phalangeal joints II and V.

N: 211

$\bar{X}$ : 7.71 cm; 3.03 in

SD: 0.33 cm; 0.15 in

V%: 4.97

Similar Dimensions:

AAF: *Hand Breadth*

ARMY '66: *Hand Breadth*

ARMY ARMORED: *Hand Breadth*

ARMY AVIATORS: *Hand Breadth*

ARMY QM: *Hand Breadth*

BARTER: *Hand Breadth at Metacarpal 2*

FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*

HANDS - MALE: *Hand Breadth*

JAPAN: *Hand Breadth*

KOREA: *Hand Breadth at Metacarpale*

MARTIN: *Breite der rechten Hand*

MONTAGU: *Hand Breadth*

NATO: *Hand Breadth at Metacarpale*

NAVY RECRUITS: *Hand Breadth*

THAI: *Hand Breadth*

USAF '50: *Hand Breadth at Metacarpale*

USMC: *Hand Breadth*

*Hand Breadth; Metacarpale—HANDS-FEMALE (Continued)*

USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width*—maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume*—[the widest points of the inner and outer edges of the palm]  
HRDLICKA: *Hand Breadth*—from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH; METACARPALE**

**Reference: HANDS-MALE**

Subject's right hand is extended, palm down, thumb held away from the fingers. With the bar of the sliding caliper lying across the back of his hand, measure the breadth of the hand between metacarpal-phalangeal joints II and V.

N: 148  
 $\bar{X}$ : 8.96 cm; 3.53 in  
SD: 0.40 cm; 0.16 in  
V%: 4.51

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Breadth*  
ARMY '66: *Hand Breadth*  
ARMY ARMORED: *Hand Breadth*  
ARMY AVIATORS: *Hand Breadth*  
ARMY QM: *Hand Breadth*

*Hand Breadth: Metacarpale—HANDS-MALE (Continued)*

BARTER: *Hand Breadth at Metacarpal 2*  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*  
HANDS - FEMALE: *Hand Breadth; Metacarpale*  
JAPAN: *Hand Breadth*  
KOREA: *Hand Breadth at Metacarpale*  
MARTIN: *Breite der rechten Hand*  
MONTAGU: *Hand Breadth*  
NATO: *Hand Breadth at Metacarpale*  
NAVY RECRUITS: *Hand Breadth*  
THAI: *Hand Breadth*  
USAF '50: *Hand Breadth at Metacarpale*  
USMC: *Hand Breadth*  
USN: *Hand Breadth*  
VIETNAM: *Hand Breadth*  
WAC: *Hand Breadth*  
WAF RECRUITS: *Hand Breadth*  
WASP: *Hand Breadth*

**Not Equivalent:**

AUSTRALIA: *Hand Width*—maximum width of the palm in front of the thumb  
FRANCE '65: *Largeur de la paume*—[the widest points of the inner and outer edges of the palm]  
HRDLÍČKA: *Hand Breadth*—from the index finger-thumb angle to the middle of the ulnar edge of the palm

**Indeterminable:**

None

**See Also:**

*Hand Breadth at Thumb*  
*Hand Breadth; Metacarpale, Minimum*

**HAND BREADTH; METACARPALE, MINIMUM**

**Reference: HAND**

Subject extends and narrows his right hand as small as possible. Measure the maximum distance across the distal ends of the metacarpals (knuckles) of digits 2-5.

N: 27  
 $\bar{X}$ : 8.38 cm; 3.30 in

*Hand Breadth; Metacarpale, Minimum—HAND (Continued)*

SD: 0.51 cm; 0.20 in  
V%: 6.07

**Similar Dimensions:**

None

**See Also:**

*Hand Breadth*  
*Hand Breadth at Thumb*

## HAND CIRCUMFERENCE

**Reference: ARMY '66**

Subject sits, with his right hand and fingers extended, palm up. The maximum circumference of the hand is measured at the level of the knuckles (distal ends of the metacarpal bones). A steel tape is used.

N: 6682  
 $\bar{X}$ : 21.61 cm; 8.51 in  
SD: 1.14 cm; 0.45 in  
V%: 5.26

**Similar Dimensions:**

**Equivalent:**

ARMY AVIATORS: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NATO: *Hand Circumference around Metacarpale*  
NAVY RECRUITS: *Hand Circumference*  
USMC: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

*Hand Circumference—ARMY '66 (Continued)*

**See Also:**

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE**

**Reference: ARMY AVIATORS**

The distance around the right hand at the base of the fingers.

N: 500  
 $\bar{X}$ : 21.46 cm; 8.45 in  
SD: 0.97 cm; 0.38 in  
V%: [4.52]

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NATO: *Hand Circumference around Metacarpale*  
NAVY RECRUITS: *Hand Circumference*  
USMC: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

## HAND CIRCUMFERENCE

Reference: JAPAN

The hand is placed palm down on the table, with the fingers outstretched and together. The thumb is held away from the hand. The measurement is taken with a millimeter tape around the hand at the base of the fingers, the tape passing over all four knuckles.

N: 232  
 $\bar{X}$ : 21.23 cm; 8.36 in  
SD: 1.16 cm; 0.46 in  
V%: 5.5

Similar Dimensions:

Equivalent:

ARMY '66: *Hand Circumference*  
ARMY AVIATORS: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
NATO: *Hand Circumference around Metacarpale*  
NAVY RECRUITS: *Hand Circumference*  
USMC: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

Nct Equivalent:

None

Indeterminable:

None

See Also:

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

## HAND CIRCUMFERENCE

Reference: NAVY RECRUITS

- Subject sits, with his right hand and fingers extended, palm up. The maximum circumference of the hand is measured at the level of the knuckles (distal ends of the metacarpal bones). A steel tape is used.

N: 4095  
 $\bar{X}$ : 21.41 cm; 8.43 in  
SD: 1.09 cm; 0.43 in  
V%: 5.04

Similar Dimensions:

Equivalent:

ARMY '66: *Hand Circumference*  
ARMY AVIATORS: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NATO: *Hand Circumference around Metacarpale*  
USMC: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

## HAND CIRCUMFERENCE

Reference: USMC

Subject sits, with his right hand and fingers extended, palm up. The maximum cir-

*Hand Circumference—USMC (Continued)*

cumference of the hand is measured at the level of the knuckles (distal ends of the metacarpal bones). A steel tape is used.

N: 2008  
 $\bar{X}$ : 21.66 cm; 8.53 in  
SD: 1.11 cm; 0.44 in  
V%: 5.10

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hand Circumference*  
ARMY AVIATORS: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NATO: *Hand Circumference around Metacarpale*  
NAVY RECRUITS: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE**

**Reference: USN**

The subject stiffens his hand with the fingers extended and together. The thumb is held away from the hand. Measure the circumference around the hand at the level of the metacarpal-phalangeal joints of the palm.

*Hand Circumference—USN (Continued)*

N: 1549  
 $\bar{X}$ : 21.38 cm; 8.42 in  
SD: 1.00 cm; 0.40 in  
V%: 4.69

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hand Circumference*  
ARMY AVIATORS: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NATO: *Hand Circumference around Metacarpale*  
NAVY RECRUITS: *Hand Circumference*  
USMC: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE AROUND METACARPALE**

**Reference: NATO**

The subject stiffens his hand with the fingers extended and together. The thumb is held away from the hand. Measure the circumference around the hand at the level of the metacarpal-phalangeal joints of the palm.

*Hand Circumference Around Metacarpale—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 20.76 cm; 8.17 in	21.25 cm; 8.37 in	21.56 cm; 8.49 in
SD: 1.00 cm; 0.39 in	1.07 cm; 0.42 in	1.01 cm; 0.40 in
V%: 4.82	5.04	4.68

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hand Circumference*  
ARMY AVIATORS: *Hand Circumference*  
BARTER: *Hand Circumference at Metacarpal 2*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NAVY RECRUITS: *Hand Circumference*  
USMC: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE AROUND THUMB**

**Reference: NATO**

Subject stiffens his hand with the fingers extended and touching the thumb in the plane of the palm and lightly touching the side of the hand. Measure the circumference of the hand around the phalangeal joint of the thumb with the tape passing at right angles to the long axis of the hand.

*Hand Circumference Around Thumb—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1000	1358
$\bar{X}$ : 24.76 cm; 9.75 in	24.1 cm; 9.75 in	24.85 cm; 9.78 in
SD: 1.22 cm; 0.48 in	1.06 cm; 0.42 in	1.12 cm; 0.44 in
V%: 4.93	4.28	4.51

**Similar Dimensions:**

**Equivalent:**

USN: *Hand Circumference at Thumb*

**Not Equivalent:**

BARTER: *Hand Circumference at Thumb*—at the level of the metacarpal-phalangeal joint of the first digit

**Indeterminable:**

None

**See Also:**

*Hand Circumference*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE AT METACARPAL 2**

**Reference: BARTER**

The hand is placed palm down on the table, with the fingers outstretched and together. The thumb is held away from the hand. The measurement is taken with a millimeter tape around the hand at the base of the fingers, the tape passing over all four knuckles.

N: 100  
 $\bar{X}$ : 21.39 cm; 8.42 in  
SD: 0.84 cm; 0.33 in  
V%: [3.97]

*Hand Circumference at Metacarpal 2—BARTER (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hand Circumference*  
ARMY AVIATORS: *Hand Circumference*  
HANDS - FEMALE: *Hand Circumference; Metacarpale*  
HANDS - MALE: *Hand Circumference; Metacarpale*  
JAPAN: *Hand Circumference*  
NATO: *Hand Circumference around Metacarpale*  
NAVY RECRUITS: *Hand Circumference*  
USMC: *Hand Circumference*  
USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

**Not Equivalent:**

None

**See Also:**

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE AT THUMB**

**Reference: BARTER**

The hand is placed palm down on the table, with the fingers outstretched and together. The thumb is held loosely against the side of the hand. The measurement is taken with a steel millimeter tape. The tape passes at right angles to the long axis of the hand at the level of the metacarpal-phalangeal joint of the first digit.

N: 100  
 $\bar{X}$ : 25.11 cm; 9.89 in  
SD: 1.1 cm; 0.43 in  
V%: [4.38]

**Similar Dimensions:**

**Equivalent:**

None

*Hand Circumference at Thumb—BARTER (Continued)*

Not Equivalent:

NATO: *Hand Circumference at Thumb*—around the phalangeal joint of the thumb

USN: *Hand Circumference at Thumb*—around the phalangeal joint of the thumb

Indeterminable:

None

See Also:

*Hand Circumference*

*Hand Circumference; Fingertips Even*

*Hand Circumference; Metacarpale, Minimum*

*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFFERENCE AT THUMB**

Reference: USN

The subject stiffens his hand with the fingers extended and touching the thumb in the plane of the palm and lightly touching the side of the hand. Measure the circumference of the hand around the phalangeal joint of the thumb with the tape passing at right angles to the long axis of the hand.

N: 1549

$\bar{X}$ : 25.46 cm; 10.03 in

SD: 1.12 cm; 0.44 in

V%: 4.41

Similar Dimensions:

Equivalent:

NATO: *Hand Circumference around Thumb*

Not Equivalent:

BARTER: *Hand Circumference at Thumb*—at the level of the metacarpal-phalangeal joint of the first digit

Indeterminable:

None

*Hand Circumference at Thumb—USN (Continued)*

**See Also:**

*Hand Circumference*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE; FINGERTIPS EVEN**

**Reference: HANDS-FEMALE**

Subject taps her five fingertips even on any flat surface. With the fingertips held even, measure the circumference of the hand around the midpoints of the proximal phalanges of all five digits.

N: 211  
 $\bar{X}$ : 22.60 cm; 8.90 in  
SD: 1.17 cm; 0.46 in  
V%: 5.18

**Similar Dimensions:**

**Equivalent:**

**HANDS - MALE:** *Hand Circumference; Fingertips Even*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE; FINGERTIPS EVEN**

**Reference: HANDS-MALE**

Subject taps his five fingertips even on any flat surface. With the fingertips held even, measure the circumference of the hand around the midpoints of the proximal phalanges of all five digits.

*Hand Circumference; Fingertips Even—HANDS-MALE (Continued)*

N: 148  
 $\bar{X}$ : 22.77 cm; 8.96 in  
SD: 2.19 cm; 0.86 in  
V%: 9.63

**Similar Dimensions:**

**Equivalent:**

**HANDS - FEMALE:** *Hand Circumference; Fingertips Even*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE; METACARPALE**

**Reference: HANDS-FEMALE**

Subject's right hand is extended, palm down, thumb held away from the fingers. With the tape passing over metacarpal-phalangeal joints II and V, measure the circumference of the hand.

N: 211  
 $\bar{X}$ : 18.71 cm; 7.37 in  
SD: 0.83 cm; 0.33 in  
V%: 4.43

**Similar Dimensions:**

**Equivalent:**

**ARMY '66:** *Hand Circumference*  
**ARMY AVIATORS:** *Hand Circumference*  
**BARTER:** *Hand Circumference at Metacarpal 2*  
**HANDS - MALE:** *Hand Circumference; Metacarpale*  
**JAPAN:** *Hand Circumference*  
**NATO:** *Hand Circumference around Metacarpale*

*Hand Circumference; Metacarpale—HANDS-FEMALE (Continued)*

NAVY RECRUITS: *Hand Circumference*

USMC: *Hand Circumference*

USN: *Hand Circumference*

WAF RECRUITS: *Palm Circumference*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hand Circumference at Thumb*

*Hand Circumference; Fingertips Even*

*Hand Circumference; Metacarpale, Minimum*

*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE; METACARPALE**

Reference: HANDS-MALE

Subject's right hand is extended, palm down, thumb held away from the fingers. With the tape passing over metacarpal-phalangeal joints II and V, measure the circumference of the hand.

N: 148

$\bar{X}$ : 21.59 cm; 8.50 in

SD: 0.90 cm; 0.35 in

V%: 4.17

Similar Dimensions:

Equivalent:

ARMY '66: *Hand Circumference*

ARMY AVIATORS: *Hand Circumference*

BARTER: *Hand Circumference at Metacarpal 2*

HANDS - FEMALE: *Hand Circumference; Metacarpale*

JAPAN: *Hand Circumference*

NATO: *Hand Circumference around Metacarpale*

NAVY RECRUITS: *Hand Circumference*

USMC: *Hand Circumference*

*Hand Circumference; Metacarpale*—HANDS-MALE (Continued)

USN: *Hand Circumference*  
WAF RECRUITS: *Palm Circumference*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE; METACARPALE, MINIMUM**

Reference: HANDS-FEMALE

Subject extends and narrows her right hand as much as possible. With the tape passing over metacarpal-phalangeal joints II and V, measure the circumference of the hand.

N: 211  
 $\bar{X}$ : 21.46 cm; 8.45 in  
SD: 1.23 cm; 0.48 in  
V%: 5.73

Similar Dimensions:

Equivalent:

HANDS - MALE: *Hand Circumference; Metacarpale, Minimum*

Not Equivalent:

None

Indeterminable:

None

*Hand Circumference; Metacarpale, Minimum—HANDS-FEMALE (Continued)*

**See Also:**

*Hand Circumference*  
*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Thumb-Forefinger*

**HAND CIRCUMFERENCE; METACARPALE, MINIMUM**

**Reference: HANDS-MALE**

Subject extends and narrows his right hand as much as possible. With the tape passing over metacarpal-phalangeal joints II and V, measure the circumference of the hand.

N: 148  
X: 25.43 cm; 10.01 in  
SD: 1.31 cm; 0.52 in  
V%: 5.15

**Similar Dimensions:**

**Equivalent:**

**HANDS - FEMALE:** *Hand Circumference; Metacarpale, Minimum*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Hand Circumference*  
*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Thumb-Forefinger*

## HAND CIRCUMFERENCE; THUMB-FOREFINGER

Reference: HAND

Subject's right hand is extended with the tips of the thumb and forefinger lightly touching. With the tape passing over the distal ends of the metacarpals (knuckles) of all five digits, measure the circumference of the hand.

N: 27  
 $\bar{X}$ : 27.36 cm; 10.77 in  
SD: 1.77 cm; 0.70 in  
V%: 6.48

Similar Dimensions:

None

See Also:

*Hand Circumference*  
*Hand Circumference at Thumb*  
*Hand Circumference; Fingertips Even*  
*Hand Circumference; Metacarpale, Minimum*

## HAND DEPTH; THENAR PAD

Reference: HANDS-FEMALE

Subject's right hand is extended with the thumb lying adjacent to the volar surface of digit 2. With the sliding caliper, measure the maximum depth from the volar side of the thenar pad to the dorsal surface of the hand.

N: 211  
 $\bar{X}$ : 5.17 cm; 2.03 in  
SD: 0.39 cm; 0.15 in  
V%: 7.55

Similar Dimensions:

Equivalent:

HANDS - MALE: *Hand Depth; Thenar Pad*

Not Equivalent:

None

Indeterminable:

None

## HAND DEPTH; THENAR PAD

Reference: HANDS-MALE

Subject's right hand is extended with the thumb lying adjacent to the volar surface of digit 2. With the sliding caliper, measure the maximum depth from the volar side of the thenar pad to the dorsal surface of the hand.

N: 148  
 $\bar{X}$ : 6.19 cm; 2.44 in  
SD: 0.45 cm; 0.18 in  
V%: 7.27

Similar Dimensions:

Equivalent:

HANDS - FEMALE: *Hand Depth; Thenar Pad*

Not Equivalent:

None

Indeterminable:

None

## HAND LENGTH

Reference: AAF

Right hand, fingers extended and together, palm up. Distance from proximal end of navicular (small wrist bone at base of thumb) to tip of middle finger. Fixed end of caliper firmly pressed against navicular, light contact to fingertip.

*Cadets*  
N: 2952  
Median: 19.28 cm; 7.6 in  
SD: NDA  
V%: NDA

*Gunners*  
582  
19.13 cm; 7.5 in  
NDA  
NDA

Similar Dimensions:

Equivalent:

ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*

*Hand Length—AAF (Continued)*

BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[to the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLÍČKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: ARMY '66

Subject sits, with his right hand and fingers extended, palm up. The length of the

*Hand Length—ARMY '66 (Continued)*

right hand is measured from the wrist crease to the tip of the middle finger. Sliding calipers are used.

N: 6682  
 $\bar{X}$ : 19.02 cm; 7.49 in  
SD: 0.96 cm; 0.38 in  
V%: 5.06

**Similar Dimensions:**

**Equivalent:**

HANDS - FEMALE: *Hand Length*  
HANDS - MALE: *Hand Length*  
NAVY RECRUITS: *Hand Length*  
USMC: *Hand Length*  
WAC: *Hand Length*

**Not Equivalent:**

AAF: *Hand Length*—from proximal end of navicular  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longeur de la main*—[the point of the radial styloid]  
HRDLIČKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both styli]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark *to* the proximal edge of the navicular bone  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

*Hand Length—ARMY '66 (Continued)*

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: ARMY ARMORED

Right hand, fingers extended and together, palm up. Distance from proximal end of navicular (small wrist bone at base of thumb) to tip of middle finger. Fixed end of caliper firmly pressed against navicular; light contact to finger-tip.

Reference cites AAF data for this dimension.

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal

*Hand Length—ARMY ARMORED (Continued)*

limits of the thenar and hypothenar eminences

MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylia]

MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes

NAVY RECRUITS: *Hand Length*—from the wrist crease

USMC: *Hand Length*—from the wrist crease

WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: ARMY AVIATORS

The distance from the wrist to the end of the middle finger of the right hand.

N: 500

$\bar{X}$ : 18.98 cm; 7.47 in

SD: 0.87 cm; 0.34 in

V%: [4.58]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

None

Indeterminable:

AAF: *Hand Length*—from proximal end of navicular

ARMY '66: *Hand Length*—from the wrist crease

ARMY ARMORED: *Hand Length*—from proximal end of navicular

ARMY QM: *Hand Length*—from the proximal edge of the navicular

AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist

*Hand Length—ARMY AVIATORS (Continued)*

BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longeur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark *†aver the proximal edge of the navicular bone*  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USMC: *Hand Length*—from the wrist crease  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAC: *Hand Length*—from the most distal crease on the wrist  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

**HAND LENGTH**

**Reference: ARMY QM**

With the right hand extended and the calipers lying in the palm of the hand, measure from the proximal edge of the navicular to dactylion *†the tip of the middle finger†* with firm contact.

N: 24487  
 $\bar{X}$ : 19.25 cm; 7.58 in  
SD: 0.92 cm; 0.36 in  
V%: [4.78]

**Similar Dimensions:**

Equivalent:

AAF: *Hand Length*

*Hand Length—ARMY QM (Continued)*

ARMY ARMORED: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

**Not Equivalent:**

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both styli]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

**HAND LENGTH**

**Reference: AUSTRALIA**

With the right hand placed on the table the length of hand is measured from the base of the thumb where the thumb joins the wrist to the tip of the middle finger.

*Hand Length—AUSTRALIA (Continued)*

N: 3434  
 $\bar{X}$ : 19.04 cm; 7.50 in.  
SD: 1.08 cm; 0.43 in  
V%: [5.60]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Hand Length*—from proximal end of navicular  
ARMY '66: *Hand Length*—from the wrist crease  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDIČKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark over the proximal edge of the navicular bone  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USMC: *Hand Length*—from the wrist crease  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAC: *Hand Length*—from the most distal crease on the wrist  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: BARTER

The hand is placed on the table with the palm facing upwards, the fingers outstretched and together. The measurement is taken with the sliding caliper from the proximal edge of the navicular bone (located by palpation) to the fleshy tip of the third digit.

N: 100  
 $\bar{X}$ : 18.81 cm; 7.41 in  
SD: 0.94 cm; 0.37 in  
V%: [5.00]

### Similar Dimensions:

#### Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

#### Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease

*Hand Length—BARTER (Continued)*

USMC: *Hand Length*—from the wrist crease

WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: COMAS

†With subject in standing position† From stylium †the distalmost point of the styloid process of the radius† to dactylium †the middle of the tip of the middle finger†. (Sliding caliper).

No Data Available

Similar Dimensions:

Equivalent:

FRANCE '65: *Longueur de la main*

Not Equivalent:

AAF: *Hand Length*—from proximal end of navicular

ARMY '66: *Hand Length*—from the wrist crease

ARMY ARMORED: *Hand Length*—from proximal end of navicular

ARMY QM: *Hand Length*—from the proximal edge of the navicular

AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist

BARTER: *Hand Length*—from the proximal edge of the navicular bone

BULGARIA: *Length of the Wrist*—central point on the straight line connecting the two styliums

HANDS - FEMALE: *Hand Length*—from the wrist crease

HANDS - MALE: *Hand Length*—from the wrist crease

HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences

JAPAN: *Hand Length*—from the proximal edge of the navicular bone

KOREA: *Hand Length*—from the proximal edge of the navicular bone

MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylium]

MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes

*Hand Length—COMAS (Continued)*

NATO: *Hand Length*—from the landmark ~~to~~<sup>over</sup> the proximal edge of the navicular bone

NAVY RECRUITS: *Hand Length*—from the wrist crease

THAI: *Hand Length*—from wrist (navicular)

USAF '50: *Hand Length*—from the proximal edge of the navicular bone

USMC: *Hand Length*—from the wrist crease

USN: *Hand Length*—from the proximal edge of the navicular bone

VIETNAM: *Hand Length*—from wrist (navicular)

WAC: *Hand Length*—from the most distal crease on the wrist

WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone

WASP: *Hand Length*—from proximal end of navicular

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: HANDS-FEMALE

Subject's right hand is extended, palm up. With the bar of the sliding caliper parallel to the long axis of her hand, measure the distance from the wrist crease baseline to the tip of the longest finger.

N: 211

$\bar{X}$ : 17.93 cm; 7.06 in

SD: 0.86 cm; 0.34 in

V%: 4.79

Similar Dimensions:

Equivalent:

ARMY' 66: *Hand Length*

HANDS - MALE: *Hand Length*

NAVY RECRUITS: *Hand Length*

USMC: *Hand Length*

WAC: *Hand Length*

*Hand Length—HANDS-FEMALE (Continued)*

**Not Equivalent:**

AAF: *Hand Length*—from proximal end of navicular  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark *to* the proximal edge of the navicular bone  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

**Reference: HANDS-MALE**

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying along his palm, measure the distance from the wrist crease baseline to the tip of the longest finger.

*Hand Length—HANDS-MALE (Continued)*

N: 148  
X: 19.72 cm; 7.76 in  
SD: 0.93 cm; 0.37 in  
V%: 4.73

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hand Length*  
HANDS - FEMALE: *Hand Length*  
NAVY RECRUITS: *Hand Length*  
USMC: *Hand Length*  
WAC: *Hand Length*

**Not Equivalent:**

AAF: *Hand Length*—from proximal end of navicular  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HRDLÍČKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MCNTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark *to* the proximal edge of the navicular bone  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: HRDLÍČKA

Distance from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences to the fleshy end of the medius, with the hand in full extension.

No Data Available

### Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Hand Length*—from proximal end of navicular  
ARMY '66: *Hand Length*—from the wrist crease  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark *to* the proximal edge of the navicular bone  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USMC: *Hand Length*—from the wrist crease  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAC: *Hand Length*—from the most distal crease on the wrist  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

*Hand Length—HRDLIČKA (Continued)*

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: JAPAN

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying along his palm, measure the distance from the proximal edge of the navicular bone at the wrist to the tip of the middle finger.

N: 238  
 $\bar{X}$ : 18.30 cm; 7.20 in  
SD: 0.80 cm; 0.31 in  
V%: 4.40

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians

*Hand Length—JAPAN (Continued)*

COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longeur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypotenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylium]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: KOREA

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying along his palm, measure the distance from the proximal edge of the navicular bone at the wrist to the tip of the middle finger.

N: 264  
 $\bar{X}$ : 18.46 cm; 7.27 in  
SD: 0.77 cm; 0.30 in  
V%: 4.16

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAFAN: *Hand Length*  
NATO: *Hand Length*

*Hand Length—KOREA (Continued)*

THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

**Not Equivalent:**

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

**Reference: NATO**

Subject's right hand is extended stiffly in the axis of the lower arm, palm upward and fingers together. With the bar of the sliding caliper parallel to the long axis of the hand, measure the distance from the landmark *over the proximal edge of the navicular bone* at the base of the hand to the tip of the middle finger.

*Hand Length—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 18.83 cm; 7.41 in	18.80 cm; 7.40 in	18.96 cm; 7.46 in
SD: 0.83 cm; 0.33 in	0.83 cm; 0.33 in	0.86 cm; 0.34 in
V%: 4.39	4.43	4.52

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Length*  
 ARMY ARMORED: *Hand Length*  
 ARMY QM: *Hand Length*  
 BARTER: *Hand Length*  
 JAPAN: *Hand Length*  
 KOREA: *Hand Length*  
 THAI: *Hand Length*  
 USAF '50: *Hand Length*  
 USN: *Hand Length*  
 VIETNAM: *Hand Length*  
 WAF RECRUITS: *Hand Length*  
 WASP: *Hand Length*

**Not Equivalent:**

ARMY '66: *Hand Length*—from the wrist crease  
 AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
 BULGARIA: *Length of the Wrist*—central point of a straight line connecting the two stylians  
 COMAS: *Hand Length*—from stylium  
 FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
 HANDS - FEMALE: *Hand Length*—from the wrist crease  
 HANDS - MALE: *Hand Length*—from the wrist crease  
 HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
 MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
 MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
 NAVY RECRUITS: *Hand Length*—from the wrist crease  
 USMC: *Hand Length*—from the wrist crease  
 WAC: *Hand Length*—from the most distal crease on the wrist

*Hand Length—NATO (Continued)*

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: NAVY RECRUITS

Subject sits, with right hand and fingers extended, palm up. The length of the right hand is measured from the wrist crease to the tip of the middle finger. Sliding calipers are used.

N: 4095  
 $\bar{X}$ : 18.89 cm; 7.44 in  
SD: 0.91 cm; 0.36 in  
V%: 4.78

Similar Dimensions:

Equivalent:

ARMY '66: *Hand Length*  
HANDS - FEMALE: *Hand Length*  
HANDS - MALE: *Hand Length*  
USMC: *Hand Length*  
WAC: *Hand Length*

Not Equivalent:

AAF: *Hand Length*—from proximal end of navicular  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylien  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HRDLIČKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone

*Hand Length—NAVY RECRUITS (Continued)*

KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both styli]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark *to*over the proximal edge of the navicular bone  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: THAI

With right hand extended palm up and fingers straight, measured as distance from wrist (navicular) to tip of middle finger (dactylion).

N: 2950  
 $\bar{X}$ : 18.0 cm; 7.1 in  
SD: 0.8 cm; 0.3 in  
V%: 4.4

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*

*Hand Length—THAI (Continued)*

USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

**Not Equivalent:**

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylium]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

**HAND LENGTH**

**Reference:** USAF '50

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying along his palm, measure the distance from the proximal edge of the navicular bone at the wrist to the tip of the middle finger.

N: 4063  
 $\bar{X}$ : 19.02 cm; 7.49 in  
SD: 0.86 cm; 0.34 in  
V%: 4.52

*Hand Length—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

**Not Equivalent:**

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylious  
COMAS: *Hand Length*—from stylious  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylious]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

### Reference: USMC

Subject sits, with his right hand and fingers extended, palm up. The length of the right hand is measured from the wrist crease to the tip of the middle finger. Sliding calipers are used.

N: 2008  
 $\bar{X}$ : 18.94 cm; 7.46 in  
SD: 0.93 cm; 0.37 in  
V%: 4.91

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Hand Length*  
HANDS - FEMALE: *Hand Length*  
HANDS - MALE: *Hand Length*  
NAVY RECRUITS: *Hand Length*  
WAC: *Hand Length*

#### Not Equivalent:

AAF: *Hand Length*—from proximal end of navicular  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HRDLICKA: *Hand Length*—from the middle of a line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the stylioid processes  
NATO: *Hand Length*—from the landmark 'over the proximal edge of the navicular bone  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

*Hand Length—USMC (Continued)*

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: USN

Subject's right hand is extended, palm up. With the bar of the sliding caliper lying along his palm, measure the distance from the proximal edge of the navicular bone at the wrist to the tip of the middle finger.

N: 1549  
 $\bar{X}$ : 19.12 cm; 7.53 in  
SD: 0.86 cm; 0.34 in  
V%: 4.50

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium

*Hand Length—USN (Continued)*

FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylia]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: VIETNAM

With right hand extended, palm up and fingers straight, measured as distance from wrist (navicular) to tip of middle finger (dactylion).

N: 2127  
X: 17.6 cm; 6.9 in  
SD: 6.8 cm; 2.4 in  
V%: 4.5

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*

*Hand Length—VIETNAM (Continued)*

USAF '50: *Hand Length*  
USN: *Hand Length*  
WAF RECRUITS: *Hand Length*  
WASP: *Hand Length*

Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both styli]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease  
USMC: *Hand Length*—from the wrist crease  
WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

Reference: WAC

†Subject sat erect with eyes on an imaginary horizon† and asked to extend left hand, palm up and fingers extended. Measurement taken from the most distal crease on the wrist to dactylin †the most distal point of the third finger†.

N: 8488  
 $\bar{X}$ : 17.49 cm; 6.89 in  
SD: 0.83 cm; 0.33 in  
V%: [4.75]

*Hand Length—WAC (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY' 66: *Hand Length*  
HANDS - FEMALE: *Hand Length*  
HANDS - MALE: *Hand Length*  
NAVY RECRUITS: *Hand Length*  
USMC: *Hand Length*

**Not Equivalent:**

AAF: *Hand Length*—from proximal end of navicular  
ARMY ARMORED: *Hand Length*—from proximal end of navicular  
ARMY QM: *Hand Length*—from the proximal edge of the navicular  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BARTER: *Hand Length*—from the proximal edge of the navicular bone  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longeur de la main*—[the point of the radial styloid]  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
JAPAN: *Hand Length*—from the proximal edge of the navicular bone  
KOREA: *Hand Length*—from the proximal edge of the navicular bone  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylians]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NATO: *Hand Length*—from the landmark ~~to~~over the proximal edge of the navicular bone  
THAI: *Hand Length*—from wrist (navicular)  
USAF '50: *Hand Length*—from the proximal edge of the navicular bone  
USN: *Hand Length*—from the proximal edge of the navicular bone  
VIETNAM: *Hand Length*—from wrist (navicular)  
WAF RECRUITS: *Hand Length*—from the proximal edge of the navicular bone  
WASP: *Hand Length*—from proximal end of navicular

**Indeterminable:**

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

**See Also:**

*Hand Length; Thumb-Forefinger*

## HAND LENGTH

### Reference: WAF RECRUITS

The subject's right hand is extended. With the sliding calipers resting on the subject's palm, measure from the proximal edge of the navicular bone to the tip of the middle finger.

N: 851  
 $\bar{X}$ : 17.17 cm; 6.76 in  
SD: 0.88 cm; 0.34 in  
V%: 5.10

### Similar Dimensions:

#### Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WASP: *Hand Length*

#### Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease  
AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist  
BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylii  
COMAS: *Hand Length*—from stylium  
FRANCE '65: *Longueur de la main*—[the point of the radial styloid]  
HANDS - FEMALE: *Hand Length*—from the wrist crease  
HANDS - MALE: *Hand Length*—from the wrist crease  
HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences  
MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylii]  
MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes  
NAVY RECRUITS: *Hand Length*—from the wrist crease

*Hand Length—WAF RECRUITS (Continued)*

USMC: *Hand Length*—from the wrist crease

WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

**HAND LENGTH**

Reference: WASP

Right hand, fingers extended and together, palm up. Distance from proximal end of navicular (small wrist bone at base of thumb) to tip of middle finger. Fixed end of caliper firmly pressed against navicular, light contact to finger tip.

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 437	142
$\bar{X}$ : 17.58 cm; 6.92 in	17.53 cm; 6.92 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

AAF: *Hand Length*  
ARMY ARMORED: *Hand Length*  
ARMY QM: *Hand Length*  
BARTER: *Hand Length*  
JAPAN: *Hand Length*  
KOREA: *Hand Length*  
NATO: *Hand Length*  
THAI: *Hand Length*  
USAF '50: *Hand Length*  
USN: *Hand Length*  
VIETNAM: *Hand Length*  
WAF RECRUITS: *Hand Length*

Not Equivalent:

ARMY '66: *Hand Length*—from the wrist crease

AUSTRALIA: *Hand Length*—from . . . where the thumb joins the wrist

*Hand Length—WASP (Continued)*

BULGARIA: *Length of the Wrist*—central point of the straight line connecting the two stylians

COMAS: *Hand Length*—from stylium

FRANCE '65: *Longeur de la main*—[the point of the radial styloid]

HANDS - FEMALE: *Hand Length*—from the wrist crease

HANDS - MALE: *Hand Length*—from the wrist crease

HRDLICKA: *Hand Length*—from the middle of the line connecting the proximal limits of the thenar and hypothenar eminences

MARTIN: *Laenge der rechten Hand*—[from the middle point on a line connecting both stylium]

MONTAGU: *Maximum Hand Length*—from the mid-point of a line connecting the styloid processes

NAVY RECRUITS: *Hand Length*—from the wrist crease

USMC: *Hand Length*—from the wrist crease

WAC: *Hand Length*—from the most distal crease on the wrist

Indeterminable:

ARMY AVIATORS: *Hand Length*—[landmark on wrist not specified]

See Also:

*Hand Length; Thumb-Forefinger*

## HAND LENGTH; THUMB-FOREFINGER

Reference: HAND

Subject's right hand is extended, the tips of the thumb and forefinger lightly touching. Holding the bar of the sliding caliper parallel to the long axis of the thumb, measure from the wrist crease to the farthest point of digit 2.

N: 27

$\bar{X}$ : 11.88 cm; 4.68 in

SD: 1.02 cm; 0.40 in

V%: 8.62

Similar Dimensions:

None

See Also:

*Hand Length*

**HAND SPREAD ACROSS WEDGE—1;  
distal joint of digit 1 to distal joint of digit 2**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the distal joint of digit 2 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last 1/4" line completely cleared.

N: 27  
 $\bar{X}$ : 12.42 cm; 4.89 in  
SD: 1.41 cm; 0.55 in  
V%: 11.34

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—2;  
distal joint of digit 1 to distal joint of digit 3**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the distal joint of digit 3 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last 1/4" line completely cleared.

N: 27  
 $\bar{X}$ : 14.58 cm; 5.74 in  
SD: 1.48 cm; 0.58 in  
V%: 10.16

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—3;  
distal joint of digit 1 to distal joint of digit 4**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that the distal joint of his

**Hand Spread Across Wedge—3;  
distal joint of digit 1 to distal joint of digit 4—HAND (Continued)**

thumb is on the right edge of the wedge and the distal joint of digit 4 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 15.43 cm; 6.07 in  
SD: 1.52 cm; 0.60 in  
V%: 9.88

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—4;  
distal joint of digit 1 to distal joint of digit 5**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the distal joint of digit 5 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 15.36 cm; 6.05 in  
SD: 1.37 cm; 0.54 in  
V%: 8.93

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—5;  
distal joint of digit 1 to middle joint of digit 2**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the middle joint of digit 2 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

*Hand Spread Across Wedge—5;*  
*distal joint of digit 1 to middle joint of digit 2—HAND (Continued)*

N: 27  
 $\bar{X}$ : 10.49 cm; 4.13 in  
SD: 0.98 cm; 0.39 in  
V%: 9.37

Similar Dimensions:

None

**HAND SPREAD ACROSS WEDGE—6;**  
**distal joint of digit 1 to middle joint of digit 3**

Reference: HAND

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the middle joint of digit 3 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 12.28 cm; 4.83 in  
SD: 1.21 cm; 0.48 in  
V%: 9.85

Similar Dimensions:

None

**HAND SPREAD ACROSS WEDGE—7;**  
**distal joint of digit 1 to middle joint of digit 4**

Reference: HAND

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the middle joint of digit 4 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 13.10 cm; 5.16 in

*Hand Spread Across Wedge—7;  
distal joint of digit 1 to middle joint of digit 4—HAND (Continued)*

SD: 1.20 cm; 0.47 in  
V%: 9.15

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—8;  
distal joint of digit 1 to middle joint of digit 5**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that the distal joint of his thumb is on the right edge of the wedge and the middle joint of digit 5 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 13.41 cm; 5.28 in  
SD: 1.16 cm; 0.46 in  
V%: 8.68

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—9;  
Crotch 1 of hand to distal joint of digit 2**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that crotch 1 is on the right edge of the wedge and the distal joint of digit 2 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 10.75 cm; 4.23 in  
SD: 1.09 cm; 0.43 in  
V%: 10.16

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—10;**  
**Crotch 1 of hand to distal joint of digit 3**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that crotch 1 is on the right edge of the wedge and the distal joint of digit 3 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 12.58 cm; 4.95 in  
SD: 1.15 cm; 0.45 in  
V%: 9.11

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—11;**  
**Crotch 1 of hand to distal joint of digit 4**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that crotch 1 is on the right edge of the wedge and the distal joint of digit 4 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 13.01 cm; 5.12 in  
SD: 1.40 cm; 0.55 in  
V%: 10.74

**Similar Dimensions:**

None

**HAND SPREAD ACROSS WEDGE—12;**  
**Crotch 1 of hand to distal joint of digit 5**

**Reference: HAND**

Subject places his right hand on the measuring wedge so that crotch 1 is on the right

**Hand Spread Across Wedge—12: Crotch 1 of hand to distal joint of digit 5 —HAND (Continued)**

edge of the wedge and the distal joint of digit 5 is on the left edge of the wedge. Subject slides his hand down the sides of the wedge to the maximal spread while maintaining joint contact on the edges. Reading is taken at the last  $\frac{1}{4}$ " line completely cleared.

N: 27  
 $\bar{X}$ : 12.72 cm; 5.01 in  
SD: 1.51 cm; 0.60 in  
V%: 11.88

**Similar Dimensions:**

None

**HAND SPREAD, MAXIMUM**

**Reference: HAND**

Subject extends his right hand and spreads all five digits as far apart as possible. With a sliding or beam caliper, measure the maximum spread from the thumb tip to the edge of the fifth digit.

N: 27  
 $\bar{X}$ : 21.53 cm; 8.47 in  
SD: 1.54 cm; 0.61 in  
V%: 7.16

**Similar Dimensions:**

None

**HAND THICKNESS AT METACARPALE III**

**Reference: NATO**

Subject's right hand is held with the palm facing downward. The fingers are extended and together, but bent downward slightly on the metacarpal axis from the plane of the palm. Using only the tips of the sliding caliper arms, with light pressure, measure the thickness of the metacarpal-phalangeal joint of the middle finger. The bar of the caliper may not be perpendicular to the plane of the palm.

*Hand Thickness at Metacarpale III—NATO (Continued)*

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 3.15 cm; 1.24 in	3.21 cm; 1.26 in	2.94 cm; 1.16 in
SD: 0.23 cm; 0.09 in	0.19 cm; 0.07 in	0.18 cm; 0.07 in
V%: 7.31	6.01	6.15

**Similar Dimensions:**

**Equivalent:**

HANDS - MALE: *Hand Thickness; Metacarpale III*  
HANDS - FEMALE: *Hand Thickness; Metacarpale III*  
KOREA: *Thickness at Metacarpale III*  
USAF '50: *Thickness at Metacarpale III*  
USN: *Thickness at Metacarpale III*  
WAF RECRUITS: *Thickness at Metacarpale III*

**Not Equivalent:**

None

**Indeterminable:**

None

**HAND THICKNESS; METACARPALE III**

**Reference: HANDS-FEMALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum thickness of the metacarpal-phalangeal joint of digit III.

N: 211  
 $\bar{X}$ : 2.76 cm; 1.09 in  
SD: 0.18 cm; 0.07 in  
V%: 6.41

**Similar Dimensions:**

**Equivalent:**

HANDS - MALE: *Hand Thickness; Metacarpale III*  
KOREA: *Thickness at Metacarpale III*  
NATO: *Hand Thickness at Metacarpale III*

*Hand Thickness; Metacarpale III—HANDS-FEMALE (Continued)*

USAF '50: *Thickness at Metacarpale III*

USN: *Thickness at Metacarpale III*

WAF RECRUITS: *Thickness at Metacarpale III*

Not Equivalent:

None

Indeterminable:

None

**HAND THICKNESS; METACARPALE III**

**Reference: HANDS-MALE**

Subject's right hand is extended. With the sliding caliper, measure the maximum thickness of the metacarpal-phalangeal joint of digit III.

N: 148

$\bar{X}$ : 3.29 cm; 1.29 in

SD: 0.20 cm; 0.08 in

V%: 5.99

**Similar Dimensions:**

Equivalent:

**HANDS - FEMALE:** *Hand Thickness; Metacarpale III*

**KOREA:** *Thickness at Metacarpale III*

**NATO:** *Hand Thickness at Metacarpale III*

**USAF '50:** *Thickness at Metacarpale III*

**USN:** *Thickness at Metacarpale III*

**WAF RECRUITS:** *Thickness at Metacarpale III*

Not Equivalent:

None

Indeterminable:

None

## HAND WIDTH

Reference: AUSTRALIA

The maximum width of the palm in front of the thumb.

N: 3434  
 $\bar{X}$ : 9.75 cm; 3.84 in  
SD: 0.74 cm; 0.29 in  
V%: [7.59]

Similar Dimensions:

Equivalent:

FRANCE '65: *Largeur de la paume*  
HRDLICKA: *Hand Breadth*

Not Equivalent:

AAF: *Hand Breadth*—distal end of second metacarpal . . . distal end of fifth metacarpal  
ARMY '66: *Hand Breadth*—distal ends of the metacarpal bones  
ARMY ARMORED: *Hand Breadth*—distal end of second metacarpal . . . distal end of fifth metacarpal  
ARMY AVIATORS: *Hand Breadth*—maximum width . . . at the base of the fingers  
ARMY QM: *Hand Breadth*—across the metacarpal-phalangeal joints  
BARTER: *Hand Breadth at Metacarpal 2*—across the . . . metacarpal-phalangeal joint  
FRANCE '65: *Largeur de la main au niveau des têtes des métacarpiens*—[widest points at the heads of the first and fifth metacarpals]  
HANDS - FEMALE: *Hand Breadth; Metacarpic*—across the back of her hand . . . between metacarpal-phalangeal joints II and V  
HANDS - MALE: *Hand Breadth; Metacarpale*—across the back of the hand . . . between metacarpal-phalangeal joints II and V  
JAPAN: *Hand Breadth at Metacarpale*—across the distal ends of the metacarpal bones  
KOREA: *Hand Breadth at Metacarpale*—across the distal ends of the metacarpal bones  
MONTAGU: *Hand Breadth*—second metacarpo-phalangeal junction to . . . fifth metacarpo-phalangeal junction  
MARTIN: *Breite der rechten Hand*—[between medial metacarpale and lateral metacarpale]  
NATO: *Hand Breadth at Metacarpale*—across the distal ends of the metacarpal bones  
NAVY RECRUITS: *Hand Breadth*—distal ends of the metacarpal bones  
THAI: *Hand Breadth*—metacarpal-phalangeal joints  
USAF '50: *Hand Breadth at Metacarpale*—across the distal ends of the metacarpal bones

*Hand Width—AUSTRALIA (Continued)*

USMC: *Hand Breadth* — distal ends of the metacarpal bones

USN: *Hand Breadth* — across the distal ends of the metacarpal bones

VIETNAM: *Hand Breadth* — metacarpal-phalangeal joints

WAC: *Hand Breadth* — across the metacarpal-phalangeal joints

WAF RECRUITS: *Hand Breadth at Metacarpale* — across the distal ends of the metacarpal bones

WASP: *Hand Breadth* — between . . . distal end of second metacarpal, and distal . . . end of fifth metacarpal

Indeterminable:

None

See Also:

*Hand Breadth at Thumb*

*Hand Breadth; Metacarpale, Minimum*

**HAUTEUR BILABIALE [BILABIAL HEIGHT]**

Reference: MONACO

Compas glissière.

Points anatomiques : en haut : sommets des courbes de l'arc labial supérieur ; en bas : sommet de la courbe labiale inférieure. Placer la tige du compas bien verticale et ses branches tangentes aux sommets des deux courbes.

[Sliding caliper.

Landmarks: superiorly—the uppermost points on the curves of the arc of the upper lip; inferiorly—the lowermost point on the curve of the lower lip.

The rod of the caliper should be held vertically, its branches tangent to the summits of the curves.]

No Data Available

Similar Dimensions:

Equivalent:

KOREA: *Lip-to-Lip Distance*

MARTIN: *Höhe der Schleimhautlippen*

NATO: *Lip-to-Lip Distance*

USAF '50: *Lip-to-Lip Distance*

USN: *Lip-to-Lip Distance*

Not Equivalent:

None

Indeterminable:

None

## HAUTEUR DE L'ÉPINE ILIAQUE ANTERO-SUPÉRIEURE [HEIGHT OF THE ANTERIOR SUPERIOR ILIAC SPINE]

Reference: FRANCE '65

Sujet au garde à vous. Hauteur au-dessus du sol de la saillie de l'extrémité antérieure de la crête iliaque.

[The subject stands at attention. Height from the ground to the most anterior projection of the iliac crest.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 98.14 cm; 38.63 in	98.03 cm; 38.59 in	98.66 cm; 38.84 in
SD: 4.44 cm; 1.74 in	4.93 cm; 1.94 in	4.18 cm; 1.64 in
V%: 4.52	5.02	4.24

Similar Dimensions:

Equivalent:

BULGARIA: *Leg Length*

MONTAGU: *Right Iliospinale Height*

Not Equivalent:

MARTIN: *Höhe des rechten vorderen oberen Darmbeinstachels ueber dem Boden* — [the most inferior point of the anterior superior iliac spine to the floor]

Indeterminable:

None

See Also:

*Pubes [Height]*

*Hip Height*

## HAUTEUR DE LA FACE [FACIAL HEIGHT]

Reference: FRANCE '45

Mesurée du nasion (articulation fronto-nasale) au gnathion (point le plus inférieur du menton).

*Hauteur de la face [Facial Height]—FRANCE '65 (Continued)*

[Measurement from nasion (fronto-nasal articulation) to gnathion (the most inferior point of the menton).]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 12.35 cm; 4.86 in	12.43 cm; 4.89 in	12.40 cm; 4.88 in
SD: 0.66 cm; 0.26 in	0.63 cm; 0.25 in	0.61 cm; 0.24 in
V%: 5.36	5.09	4.89

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Face Length*  
 COMAS: *Morphological Facial Height*  
 HRDLICKA: *Face Height (Length), Morphological*  
 MARTIN: *Morphologische Gesichtshöhe*  
 MONACO: *Diametre naso-mentonnier*  
 NORWAY: *Height of Face*  
 WAC: *Face Length*

**Not Equivalent:**

ARMY '66: *Face Length (Menton-Nasal Root Length)* — to the nasal root depression  
 MONTAGU: *Morphological Facial Height* — The lowest median point on the lower border of the mandible  
 NATO: *Menton-Nasal Root Depression Length* — nasal root depression  
 NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)* — to the nasal root depression  
 USMC: *Face Length (Menton-Nasal Root Length)* — to the nasal root depression  
 THAI: *Face Length* — depression of nose between eyes  
 VIETNAM: *Face Length* — depression of nose between eyes

**Indeterminable:**

ARMY AVIATORS: *Face Length* — [ landmark on chin not specified ]  
 FRANCE '55: *Distance racine du nez-Fossette mentonnière*—[ landmarks not specified ]

**HAUTEUR DE L'INTERLIGNE INTERNE DU GENOU  
 [KNEE HEIGHT, STANDING]**

Reference: FRANCE '65

Sujet au garde à vous. Hauteur au-dessus du sol, du bord supéro interne du plateau tibial à sa partie moyenne.

*Hauteur de l'interligne interne du genou [Knee Height, Standing]—FRANCE '65 (Continued)*

[The subject stands at attention. Height from the ground to the inner edge of the tibial plateau.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	451	150
$\bar{X}$ : 45.83 cm; 18.04 in	45.92 cm; 18.07 in	46.74 cm; 18.40 in
SD: 2.68 cm; 1.05 in	2.90 cm; 1.14 in	2.83 cm; 1.11 in
V%: 5.85	6.32	6.06

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Lower Leg Length*  
 BULGARIA: *Length of the Lower Leg*  
 GENEVA: *Knee [Height]*  
 MARTIN: *Hoehe der rechten Kniegelenkfuge ueber dem Boden*  
 MONTAGU: *Right Tibiale Height*

**Not Equivalent:**

COMAS: *Leg Length*—from tibiale to the sphyrion  
 NORWAY: *Tibia Length* — [measured from] the lowest point of the malleolus internus  
 WOMEN: *Tibiale Height* — The subject placed her left foot on a chair

**Indeterminable:**

None

**See Also:**

*Kneecap Height*  
*Leg Length*

## HAUTEUR DE LA TETE [HEIGHT OF THE HEAD]

**Reference: MONACO**

Instrument: toise anthropométrique.  
 Points anatomiques: en haut: vertex; en bas: bord supérieur du trou auditif, dont le point de repere (toujours à vérifier) est ordinairement le fond de l'échancrure comprise entre le tragus et l'hélix.

[Instrument: the anthropometer.  
 Landmarks: Superiorly—the vertex; inferiorly—the superior border of the auditory

*Hauteur de la tête [Height of the Head]—MONACO (Continued)*

opening, which ordinarily corresponds (but the point should always be verified) to the parts of the notch between the tragus and helix.]

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Head Height*

MONTAGU: *Head Height*

**Not Equivalent:**

AAF: *Head Height* — from tragon to mid-longitudinal line on top of head

ARMY '66: *Head Height (Tragon-Vertex Height)* — from ... (tragon) ... to the top of the head (vertex)

ARMY ARMORED: *Head Height* — from tragon to mid-longitudinal line on top of head

ARMY AVIATORS: *Head Height* — from the notch (tragon) ... to the top of the head

COMAS: *Height of the Head* — from vertex to the tragon

HRDLICKA: *Height of the Head* — from the middle of the line connecting the floor of the 2 auditory canals, to bregma

KOREA: *Head Height (Tragon to Vertex)* — from ... (tragon) ... to the highest point of the head

MARTIN: *Ganze Kopfhöhe* — [Projected distance from the vertex to gnathion]

MARTIN: *Ohrhöhe des Kopfes* — [from tragon to bregma]

MARTIN SALLER: *Ohrhöhe des Kopfes* — [from tragon to vertex]

NATO: *Tragon-to-Vertex Height* — vertical distance from tragon to vertex

NAVY RECRUITS: *Head Height (Tragon-Vertex Height)* — from ... (tragon) ... to the top of the head (vertex)

USAF '50: *Head Height (Tragon to Vertex)* — vertical distance from ... (tragon) ... to the highest point of the head

USMC: *Head Height (Tragon-Vertex Height)* — from ... (tragon) ... to the top of the head (vertex)

USN: *Head Height (Tragon to Vertex)* — vertical distance from tragon to vertex

THAI: *Head Height* — from ... (tragon) to top of head head (vertex)

TUFTS: *Head Height* — from tragon ... to mid-longitudinal line on top of head

VIETNAM: *Head Height* — from ... (tragon) to top of head (vertex)

WAC: *Head Height* — from apex ... to the center of the tragus

**Indeterminable:**

None

**See Also:**

*Tragon to Wall Distance*

## HAUTEUR DU GENOU [KNEE HEIGHT, SITTING]

Reference: FRANCE '65

Sujet assis à une hauteur convenable pour que la cuisse soit perpendiculaire à la jambe. Hauteur au-dessus du sol du bord supérieur de la cuisse immédiatement au-dessus de la rotule.

[The subject sits in a position such that the thigh is perpendicular to the lower leg. Height from the ground to the upper edge of the thigh just above the patella.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 53.76 cm; 21.16 in	53.86 cm; 21.20 in	54.08 cm; 21.33 in
SD: 2.30 cm; 0.90 in	2.51 cm; 0.98 in	2.05 cm; 0.80 in
V%: 4.27	4.67	3.80

### Similar Dimensions:

Equivalent:

US ADULTS: *Knee Height*

Not Equivalent:

ARMY QM: *Patella Height*—one inch posterior to the anterior surface of the patella

INDIA: *Knee Height*—to the mid point of the thigh

WAC: *Patella Height*—to the most superior point of the patella

Indeterminable:

In the following, the landmark at the knee is not specified.

AAF: *Patella Height*

ARMY '66: *Knee Height, Sitting*

ARMY ARMORED: *Patella Height*

FAA: *Knee Height*

JAPAN: *Knee Height, Sitting*

KOREA: *Knee Height, Sitting*

NATO: *Knee Height, Sitting*

NAVY RECRUITS: *Knee Height, Sitting*

THAI: *Knee Height, Sitting*

TUFTS: *Patella Height*

USAF '50: *Knee Height, Sitting*

USMC: *Knee Height, Sitting*

USN: *Knee Height, Sitting*

*Hauteur du genou [Knee Height, Sitting]—FRANCE '65 (Continued)*

VIETNAM: *Knee Height, Sitting*

WASP: *Patella Height*

See Also:

*Kneecap Height*

**HAUTEUR DU NEZ [NOSE LENGTH]**

Reference: FRANCE '65

Mesurée du nasion (articulation fronto-nasale) au point sous nasal (jonction de la cloison nasale et de la lèvre supérieure).

[Measurement taken from the nasion (the fronto-nasal articulation) to a point under the nose (junction of the nasal closure and the upper lip).]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
X: 5.60 cm; 2.20 in	5.60 cm; 2.21 in	5.61 cm; 2.21 in
SD: 0.44 cm; 0.17 in	0.42 cm; 0.17 in	0.42 cm; 0.17 in
V%: 7.93	7.56	7.48

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Nose Length*

COMAS: *Nasal Height*

HRDLICKA: *Nose Height*

JAPAN: *Nose Length*

KOREA: *Nose Length*

MARTIN: *Hoche der Nase*

MONACO: *Hauteur du nez*

NATO: *Subnasale—Nasal Root Depression Length*

USAF '50: *Nose Length*

USN: *Nose Length*

WAC: *Nose Length*

**Not Equivalent:**

MONTAGU: *Nasal Length*—nasion †The point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the midsagittal plane

**Indeterminable:**

None

## HAUTEUR DU NEZ [HEIGHT OF THE NOSE]

Reference: MONACO

Compas glissière.

Points anatomiques : en haut : nasion; en bas : sous-cloison du nez, au niveau de son union avec la lèvre supérieure. Ne pas presser.

[Sliding caliper.

Landmarks : superiorly: the nasion; inferiorly: the nasal septum where it joins the upper lip. Do not press.]

No Data Available

Similar Dimensions:

Equivalent:

ARMY QM: *Nose Length*

COMAS: *Nasal Height*

FRANCE '65: *Hauteur du nez*

HRDLICKA: *Nose Height*

JAPAN: *Nose Length*

KOREA: *Nose Length*

MARTIN: *Hoche der Nase*

NATO: *Subnasale - Nasal Root Depression Length*

USAF '50: *Nose Length*

USN: *Nose Length*

WAC: *Nose Length*

Not Equivalent:

MONTAGU: *Nasal Length* — nasion †The point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the mid-sagittal plane

Indeterminable:

None

## HAUTEUR DU PIED [FOOT HEIGHT]

Reference: FRANCE '65

Sujet debout, au garde à vous. Hauteur au-dessus du sol, de la pointe de la malléole interne.

[The subject stands at attention. Height from the ground to the inferior point of the medial malleolus.]

*Hauteur du pied [Foot Height]—FRANCE '65 (Continued)*

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
X: 7.37 cm; 2.90 in	7.35 cm; 2.89 in	7.39 cm; 2.90 in
SD: 0.49 cm; 0.19 in	0.59 cm; 0.23 in	0.52 cm; 0.20 in
V%: 6.74	8.05	7.15

**Similar Dimensions:**

**Equivalent:**

MARTIN: *Hoehe der rechten inneren Knoechelspitze ueber dem Boden*  
 MONTAGU: *Right Sphyrion Height*  
 NATO: *Sphyrion Height*

**Not Equivalent:**

BULGARIA: *Medial Malleolus Height*—from malleolus internus  
 GENEVA: *Ankle [Height]*—tip of the internal malleolus  
 JAPAN: *Medial Malleolus Height*—the medial malleolus . . . its most projecting point  
 KOREA: *Lateral Malleolus Height*—the lateral malleolus  
 KOREA: *Medial Malleolus Height*—the medial malleolus . . . its most projecting point  
 NATO: *Ankle Height*—the least circumference of the ankle [height to level of]  
 NATO: *Lateral Malleolus Height*—the lateral malleolus  
 NATO: *Medial Malleolus Height*—the medial malleolus . . . its most projecting point  
 USAF '50: *Lateral Malleolus Height*—the lateral malleolus  
 USAF '50: *Medial Malleolus Height*—the medial malleolus . . . its most projecting point  
 WAF RECRUITS: *Ankle Height*—the medial ankle bone . . . the center of the area  
 WOMEN: *Ankle Height*—most medial point of the malleolus medialis

**Indeterminable:**

None

**HAUTEUR SUPRA-STERNALE [SUPRASTERNALE HEIGHT]**

**Reference: FRANCE '65**

Sujet au garde à vous. Hauteur au-dessus du sol, de la partie médiane du bord supérieur de la fourchette sternale.

*Hauteur supra-sternale [Suprasternale Height] —FRANCE '65 (Continued)*

[The subject stands at attention. Height from the ground to the mid-point of the upper edge of the sternal notch.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 140.54 cm; 55.33 in	140.72 cm; 55.40 in	141.26 cm; 55.61 in
SD: 4.94 cm; 1.94 in	5.36 cm; 2.11 in	4.42 cm; 1.74 in
V%: 3.52	3.81	3.13

**Similar Dimensions:**

**Equivalent:**

FAA: *Suprasternal Height*  
 GENEVA: *Supra-sternal Notch [Height]*  
 JAPAN: *Suprasternale Height*  
 KOREA: *Suprasternale Height*  
 MARTIN: *Hoehe des oberen Brustbeinrandes ueber dem Boden*  
 MONTAGU: *Suprasternal Height*  
 NATO: *Suprasternale Height*  
 USAF '50: *Suprasternale Height*  
 USN: *Suprasternale Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**HAUTEUR TOTALE DU VISAGE [HEIGHT OF THE FACE, TOTAL]**

**Reference: MONACO**

Compas glissiere.

Points anatomiques dans le plan median: en haut: naissance des cheveux; en bas: bord inferieur de la mandibule, en pressant un peu pour ne pas tenir compte des epaisseurs adipeuses.

[Sliding caliper:]

Landmarks in the median plane: superiorly: the hair line; inferiorly: the inferior border of the lower jaw. A slight pressure is to be used to discount the soft parts.]

No Data Available

*Hauteur totale du visage* [Height of the Face, Total]—MONACO (Continued)

Similar Dimensions:

Equivalent:

HRDLICKA: *Face Height, Physiognomic*  
MARTIN: *Physiognomische Gesichtshöhe*  
MONTAGU: *Physiognomic Facial Length*

Not Equivalent:

COMAS: *Physiognomic Facial Height*—from trichion †the mid-point at the hair-line on the forehead† to gnathion †the lowest point on the lower border of the chin  
KOREA: *Menton-Crinion Length*—from the tip at the bottom surface of the chin (menton)  
USAF '50: *Menton-Crinion Length*—from the tip at the bottom surface of the chin (menton)

Indeterminable:

None

See Also:

*Morphological Facial Height*  
*Morphological Upper Facial Height*

**HAUTEUR YEUX-SIEGE [EYE HEIGHT, SITTING]**

Reference: FRANCE '65

Sujet assis, redressé au maximum, la tête dans le plan de Francfort. Distance entre le plan du siège et le plan pupillaire.

[The subject sits maximally erect, his head held in the Frankfort plane. The distance is measured between the plane of the seat and the plane of the pupil.]

<i>Military Fighter Pilots</i>	<i>Military Transport Pilots</i>	<i>Civilian Transport Pilots</i>
N: 220	450	150
$\bar{X}$ : 80.35 cm; 31.63 in	80.65 cm; 31.75 in	80.85 cm; 31.83 in
SD: 2.94 cm; 1.15 in	3.59 cm; 1.41 in	2.84 cm; 1.11 in
V%: 3.66	4.45	3.51

Similar Dimensions:

Equivalent:

FAA: *Sitting Eye Height*  
WASP: *Eye Height*

*Hauteur yeux-siege [Eye Height, Sitting]—FRANCE '65 (Continued)*

Not Equivalent:

ARMY '66: *Eye Height, Sitting*—to the inner corner . . . of the right eye  
ARMY AVIATORS: *Eye Height Sitting*—to the inner corner of the eye  
KOREA: *Eye Height (Internal Canthus Height)*—from the floor  
KOREA: *Eye Height, Sitting (Internal Canthus Height, Sitting)*—to the inner corner of the eye  
NATO: *Eye Height, Sitting (Internal Canthus Height, Sitting)*—to the inner corner of the right eye  
NAVY RECRUITS: *Eye Height, Sitting*—to the inner corner . . . of the right eye  
THAI: *Eye Height, Sitting*—to the level of inner corner of right eye  
USAF '50: *Eye Height, Sitting (Internal Canthus Height, Sitting)*—to the inner corner of the eye  
USMC: *Eye Height, Sitting*—to the inner corner . . . of the right eye

Indeterminable:

None

See Also:

*Eye Height (Internal Canthus Height)*

## HEAD [WIDTH]

Reference: INDIA

Width between two temporal region[s] by the help of anthropometer or block.

N: 691  
X: 15.23 cm; 6.00 in  
SD: 0.59 cm; 0.23 in  
V%: [3.87]

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
JAPAN: *Head Breadth*

*Head [Width]—INDIA (Continued)*

KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: ARMY '66

Subject sits erect, with head level. The maximum horizontal breadth of the head is measured above and behind the ears. Spreading calipers are used.

N: 6682  
 $\bar{X}$ : 15.26 cm; 6.01 in  
SD: 0.58 cm; 0.23 in  
V%: 3.83

Similar Dimensions:

Equivalent:

ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*

*Head Breadth—ARMY '66 (Continued)*

INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

**Reference: ARMY AVIATORS**

The maximum breadth of the head.

N: 500  
 $\bar{X}$ : 15.54 cm; 6.12 in  
SD: 0.53 cm; 0.21 in  
V%: [3.41]

**Similar Dimensions:**

Equivalent:

ARMY '66: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*

*Head Breadth—ARMY AVIATORS (Continued)*

JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesse Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

**Reference: ARMY QM**

The maximum breadth of the head taken perpendicularly to [the head length] †length of the head taken from glabella †the most anterior point in the mid-line of the head between the brow ridges† to the most posterior point in the midline of the head †.

N: 24,447  
X: 15.21 cm; 5.99 in  
SD: 0.59 cm; 0.23 in  
V%: [3.88]

**Similar Dimensions:**

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
COMAS: *Head Breadth*

*Head Breadth—ARMY CM (Continued)*

FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFIS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: COMAS

†With subject in sitting position† [T]he maximum of the head, euryon†the most laterally projecting point on the sides of the head above the supra mastoid and zygomatic crests† to euryon (sp.c.).

No Data Available

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*

*Head Breadth—COMAS (Continued)*

FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: HRDLICKA

The greatest transverse diameter in the horizontal plane which can be found on the vault by the spreading caliper.

No Data Available

Similar Dimensions:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*

*Head Breadth—HRDLIČKA (Continued)*

KOREA: *Head Breadth*  
MARTIN: *Groesse Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

**Reference: JAPAN**

Holding the spreading caliper near its tips, measure the maximum breadth of the head in a plane perpendicular to the mid-sagittal plane.

N: 234  
 $\bar{X}$ : 15.76 cm; 6.20 in  
SD: 0.61 cm; 0.24 in  
V%: 3.90

**Similar Dimensions:**

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*

*Head Breadth—JAPAN (Continued)*

HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: KOREA

Holding the spreading caliper near its tips, measure the maximum breadth of the head in a plane perpendicular to the mid-sagittal plane.

N: 264  
 $\bar{X}$ : 15.49 cm; 6.09 in  
SD: 0.74 cm; 0.29 in  
V%: 4.93

Similar Dimensions:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*

*Head Breadth—KOREA (Continued)*

HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: NATO

Subjects sits. Holding the spreading caliper near the tips, measure the maximum breadth of the head in a line perpendicular to the midsagittal plane.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 15.68 cm; 6.17 in	15.45 cm; 6.08 in	15.54 cm; 6.12 in
SD: 0.60 cm; 0.24 in	0.63 cm; 0.25 in	0.59 cm; 0.23 in
V%: 3.83	4.05	3.80

Similar Dimensions:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*

**Head Breadth—NATO (Continued)**

COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

**Reference: NAVY RECRUITS**

Subject sits erect, with head level. The maximum horizontal breadth of the head is measured above and behind the ears. Spreading calipers are used.

N: 4095

$\bar{X}$ : 15.24 cm; 6.00 in

SD: 0.58 cm; 0.23 in

V%: 3.76

**Similar Dimensions:**

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*

*Head Breadth—NAVY RECRUITS (Continued)*

INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

**Reference: THAI**

Measured as maximum breadth of head, above and behind ears.

N: 2950  
 $\bar{X}$ : 15.2 cm; 6.0 in  
SD: 0.7 cm; 0.3 in  
V%: 4.6

**Similar Dimensions:**

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*

*Head Breadth—THAI (Continued)*

MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*

MONTAGU: *Maximum Head Breadth*

NATO: *Head Breadth*

NAVY RECRUITS: *Head Breadth*

NORWAY: *Maximum Head Breadth*

TUFTS: *Breadth [Head]*

USAF '50: *Head Breadth*

USMC: *Head Breadth*

USN: *Head Breadth*

VIETNAM: *Head Breadth*

WAC: *Head Breadth*

WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: USAF '50

Holding the spreading caliper near its tips, measure the maximum breadth of the head in a plane perpendicular to the mid-sagittal plane.

N: 4059

$\bar{X}$ : 15.41 cm; 6.07 in

SD: 0.51 cm; 0.20 in

V%: 3.33

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*

ARMY AVIATORS: *Head Breadth*

ARMY QM: *Head Breadth*

COMAS: *Head Breadth*

FRANCE '65: *Largeur maximum de la tête*

HRDLICKA: *Head Breadth*

INDIA: *Head [Width]*

JAPAN: *Head Breadth*

*Head Breadth—USAF '50 (Continued)*

KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou d'amètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: USMC

Subject sits erect, with head level. The maximum horizontal breadth of the head is measured above and behind the ears. Spreading calipers are used.

N: 2008  
X: 15.26 cm; 6.01 in  
SD: 0.55 cm; 0.22 in  
V%: 3.74

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*

*Head Breadth—USMC (Continued)*

JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: USN

Subject sits. Holding the spreading caliper near the tips, measure the maximum breadth of the head in a line perpendicular to the midsagittal plane.

N: 1549  
 $\bar{X}$ : 15.57 cm; 6.13 in  
SD: 0.53 cm; 0.21 in  
V%: 3.39

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*

*Head Breadth—USN (Continued)*

HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: VIETNAM

Measured as maximum breadth of head, above and behind ears.

N: 2128  
 $\bar{X}$ : 14.9 cm; 5.9 in  
SD: 0.6 cm; 0.24 in  
V%: 4.0

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*

*Head Breadth—VIETNAM (Continued)*

INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
WAC: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

Reference: WAC

†Subject sat erect with eyes on an imaginary horizon† Measurer stood to rear of subject. Measurement taken as the maximum head breadth perpendicular to †the mid-sagittal plane†.

N: 8500  
 $\bar{X}$ : 14.57 cm; 5.74 in  
SD: 0.55 cm; 0.22 in  
V%: [3.77]

Similar Dimensions:

Equivalent:

ARMY '66: *Head Breadth*  
ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*

*Head Breadth—WAC (Continued)*

COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxim.*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAF RECRUITS: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD BREADTH**

**Reference: WAF RECRUITS**

Measure the maximum breadth of the head with the spreading caliper perpendicular to the mid-sagittal plane of the head.

N: 847  
 $\bar{X}$ : 14.49 cm; 5.71 in.  
SD: 0.50 cm; 0.20 in  
V%: 3.45

**Similar Dimensions:**

Equivalent:

ARMY '66: *Head Breadth*

*Head Breadth* — WAF RECRUITS (Continued)

ARMY AVIATORS: *Head Breadth*  
ARMY QM: *Head Breadth*  
COMAS: *Head Breadth*  
FRANCE '65: *Largeur maximum de la tête*  
HRDLICKA: *Head Breadth*  
INDIA: *Head [Width]*  
JAPAN: *Head Breadth*  
KOREA: *Head Breadth*  
MARTIN: *Groesste Breite des Kopfes*  
MONACO: *Largeur maxima de la tête ou diamètre transverse maxima*  
MONTAGU: *Maximum Head Breadth*  
NATO: *Head Breadth*  
NAVY RECRUITS: *Head Breadth*  
NORWAY: *Maximum Head Breadth*  
THAI: *Head Breadth*  
TUFTS: *Breadth [Head]*  
USAF '50: *Head Breadth*  
USMC: *Head Breadth*  
USN: *Head Breadth*  
VIETNAM: *Head Breadth*  
WAC: *Head Breadth*

Not Equivalent:

None

Indeterminable:

None

**HEAD CIRCUMFERENCE**

Reference: AAF

Maximum of three attempts. [sketch indicates measurement taken above brow ridges]

*Cadets*

N: 2955  
Median: 56.89 cm; 22.4 in  
SD: NDA  
V%: NDA

*Gunners*

584  
56.37 cm; 22.2 in  
NDA  
NDA

*Head Circumference—AAF (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

**Not Equivalent:**

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGÜ: *Maximum Circumference of the Head*—to the glabella

**Indeterminable:**

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

**HEAD CIRCUMFERENCE**

**Reference: ARMY '66**

Subject sits erect, with head level. The maximum circumference of the head is measured. A steel tape is used, with the tape passing just above the bony brow ridges of the forehead and above both ears.

*Head Circumference—ARMY '66 (Continued)*

N: 6682  
 $\bar{X}$ : 56.10 cm; 22.09 in  
SD: 1.60 cm; 0.63 in  
V%: 2.86

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

**Not Equivalent:**

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

**Indeterminable:**

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

**HEAD CIRCUMFERENCE**

**Reference: ARMY ARMORED**

Maximum of three attempts.

*Head Circumference--ARMY ARMORED (Continued)*

Reference cites AAF data for this dimension.

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

**Not Equivalent:**

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

**Indeterminable:**

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

**Reference: ARMY AVIATORS**

The maximum circumference of the head, measured above the brow ridges.

*Head Circumference—ARMY AVIATORS (Continued)*

N: 500  
 $\bar{X}$ : 57.12 cm; 22.49 in  
SD: 1.38 cm; 0.55 in  
V%: [2.42]

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

**Not Equivalent:**

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

**Indeterminable:**

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

**HEAD CIRCUMFERENCE**

**Reference: ARMY QM**

With subject sitting, the maximum circumference of the head is taken above the

*Head Circumference—ARMY QM (Continued)*

brow ridges. Firm pressure is used to compress the hair. Measured three times and the maximum recorded.

N: 24466  
 $\bar{X}$ : 56.65 cm; 22.30 in  
SD: 1.58 cm; 0.62 in  
V%: [2.79]

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

**Not Equivalent:**

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

**Indeterminable:**

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: BULGARIA

[M]easured with a centimeter tape in an (approximately) horizontal plane, from glabella to opisthocranium.

Men	Women
N: 1656	1578
$\bar{X}$ : [56.80 cm; 22.36 in]	[54.92 cm; 21.62 in]
Est SD: [1.94 cm; 0.76 in]	[1.75 cm; 0.69 in]
Est V%: [3.41]	[3.19]

Similar Dimensions:

Equivalent:

MARTIN: *Horizontalumfang des Kopfes*

MONTAGU: *Maximum Circumference of the Head*

Not Equivalent:

AAF: *Head Circumference*—[sketch indicates . . . above brow ridges]

ARMY '66: *Head Circumference*—just above the bony brow ridges

ARMY ARMORED: *Head Circumference*—[reference generally follows reference AAF]

ARMY AVIATORS: *Head Circumference*—above the brow ridges

ARMY QM: *Head Circumference*—above the brow ridges

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears

FAA: *Head Circumference*—immediately above the brow ridges

FRANCE '55: *Tour de tête*—[touching the occipital, parietal, temporal and frontal regions]

FRANCE '65: *Périmètre de la tête*—[between the frontal lobes and the eyebrow arches]

HRDLICKA: *Head Circumference*—above the . . . ridges

JAPAN: *Head Circumference*—above . . . the brow ridges

KOREA: *Head Circumference*—above . . . the brow ridges

NATO: *Head Circumference*—above . . . the brow ridges

NAVY RECRUITS: *Head Circumference*—just above the bony brow ridges

THAI: *Head Circumference*—above eyebrow ridges

USAF '50: *Head Circumference*—above . . . the brow ridges

USMC: *Head Circumference*—just above the bony brow ridges

USN: *Head Circumference*—above . . . the brow ridges

VIETNAM: *Head Circumference*—above eyebrow ridges

WAC: *Head Circumference*—just above glabella

WAF RECRUITS: *Head Circumference*—over [above] the brow ridges

WASP: *Head Circumference*—[sketch indicates . . . above brow ridges]

Indeterminable:

TUFTS: *Circumference [Head]*—[no landmarks specified]

## HEAD CIRCUMFERENCE

### Reference: FAA

The maximum horizontal circumference of the head immediately above the brow ridges.

N: 478  
 $\bar{X}$ : 57.90 cm; 22.80 in  
SD: 1.58 cm; 0.62 in  
V%: 2.73

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: HRDLIČKA

Taken with anthropometric tape, about the maximum expanse of the vault, and properly above the supraorbital ridges.

No Data Available

Similar Dimensions:

Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

### Reference: JAPAN

Subject sits. With the tape passing above (but not including) the brow ridges, measure the maximum circumference of the head.

N: 239  
 $\bar{X}$ : 56.38 cm; 22.20 in  
SD: 1.43 cm; 0.56 in  
V%: 2.50

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

### Reference: KOREA

Subject sits. With the tape passing above (but not including) the brow ridges, measure the maximum circumference of the head.

N: 264  
 $\bar{X}$ : 55.97 cm; 22.04 in  
SD: 1.45 cm; 0.57 in  
V%: 2.59

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

### Reference: NATO

Subject sits. With the tape passing above (but not including) the brow ridges, measure the maximum circumference of the head.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 55.16 cm; 21.72 in	55.65 cm; 21.91 in	56.51 cm; 22.25 in
SD: 1.48 cm; 0.58 in	1.48 cm; 0.58 in	1.39 cm; 0.55 in
V%: 2.68	2.65	2.47

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
 ARMY '66: *Head Circumference*  
 ARMY ARMORED: *Head Circumference*  
 ARMY AVIATORS: *Head Circumference*  
 ARMY QM: *Head Circumference*  
 FAA: *Head Circumference*  
 FRANCE '55: *Tour de tête*  
 FRANCE '65: *Périmètre de la tête*  
 HRDLICKA: *Head Circumference*  
 JAPAN: *Head Circumference*  
 KOREA: *Head Circumference*  
 NAVY RECRUITS: *Head Circumference*  
 THAI: *Head Circumference*  
 USAF '50: *Head Circumference*  
 USMC: *Head Circumference*  
 USN: *Head Circumference*  
 VIETNAM: *Head Circumference*  
 WAC: *Head Circumference*  
 WAF RECRUITS: *Head Circumference*  
 WASF: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
 BULGARIA: *Head Circumference*—from glabella  
 MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
 MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

### Reference: NAVY RECRUITS

Subject sits erect, with head level. The maximum circumference of the head is measured. A steel tape is used, with the tape passing just above the bony brow ridges of the forehead and above both ears.

N: 4095  
 $\bar{X}$ : 55.93 cm; 22.02 in  
SD: 1.57 cm; 0.62 in  
V%: 2.79

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

### Reference: THAI

Measured as maximum circumference of head with tape passing over forehead above eyebrow ridges and just above both ears.

N: 2950  
X: 54.0 cm; 21.3 in  
SD: 1.4 cm; 0.6 in  
V%: 2.6

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: USAF '50

Subject sits. With the tape passing above (but not including) the brow ridges, measure the maximum circumference of the head.

N: 4056  
 $\bar{X}$ : 57.07 cm; 22.47 in  
SD: 1.58 cm; 0.62 in  
V%: 2.77

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: USMC

Subject sits erect, with head level. The maximum circumference of the head is measured. A steel tape is used, with the tape passing just above the bony brow ridges of the forehead and above both ears.

N: 2008  
 $\bar{X}$ : 56.13 cm; 22.10 in  
SD: 1.54 cm; 0.61 in  
V%: 2.74

Similar Dimensions:

Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: USN

Subject sits. With the tape passing above (but not including) brow ridges, measure the maximum circumference of the head.

N: 1549  
 $\bar{X}$ : 57.54 cm; 22.65 in  
SD: 1.40 cm; 0.55 in  
V%: 2.44

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: VIETNAM

Measured as maximum circumference of head with tape passing over forehead above eyebrow ridges and just above both ears.

N: 2129  
 $\bar{X}$ : 54.2 cm; 21.3 in  
SD: 1.4 cm; 0.6 in  
V%: 2.6

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: WAC

†Subject sat erect with eyes on an imaginary horizon† Measurement taken as the maximum circumference of the head when the lower edge of the tape passes just above glabella. Not necessarily horizontal. Enough pressure exerted to compress the hair.

N: 8518  
 $\bar{X}$ : 55.16 cm; 21.72 in  
SD: 1.56 cm; 0.61 in  
V%: [2.83]

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAF RECRUITS: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

### Reference: WAF RECRUITS

Subject sits. Measure the maximum circumference of the head with the tape passing over the brow ridges and held perpendicular to the mid-sagittal plane, but not necessarily horizontally.

N: 847  
 $\bar{X}$ : 54.59 cm; 21.49 in  
SD: 1.73 cm; 0.68 in  
 $V\%$ : 3.17

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLICKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WASP: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE

Reference: WASP

Maximum of three attempts. [Sketch indicates measurement taken above brow ridges.]

### *Women Pilots*

N: 440  
 $\bar{X}$ : 55.20 cm; 21.73 in  
SD: NDA  
V%: NDA

### *Flying Nurses*

141  
54.59 cm; 21.49 in  
NDA  
NDA

### Similar Dimensions:

#### Equivalent:

AAF: *Head Circumference*  
ARMY '66: *Head Circumference*  
ARMY ARMORED: *Head Circumference*  
ARMY AVIATORS: *Head Circumference*  
ARMY QM: *Head Circumference*  
FAA: *Head Circumference*  
FRANCE '55: *Tour de tête*  
FRANCE '65: *Périmètre de la tête*  
HRDLÍČKA: *Head Circumference*  
JAPAN: *Head Circumference*  
KOREA: *Head Circumference*  
NATO: *Head Circumference*  
NAVY RECRUITS: *Head Circumference*  
THAI: *Head Circumference*  
USAF '50: *Head Circumference*  
USMC: *Head Circumference*  
USN: *Head Circumference*  
VIETNAM: *Head Circumference*  
WAC: *Head Circumference*  
WAF RECRUITS: *Head Circumference*

#### Not Equivalent:

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears  
BULGARIA: *Head Circumference*—from glabella  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MONTAGU: *Maximum Circumference of the Head*—to the glabella

#### Indeterminable:

TUFTS: *Circumference [Head]*—[exclusion of brow ridges not specified]

## HEAD CIRCUMFERENCE (SIZE)

### Reference: AUSTRALIA

Horizontal circumference measured around the head one-half inch above the ears.

N: 3529  
 $\bar{X}$ : 57.22 cm; 22.53 in  
SD: 1.69 cm; 0.67 in  
V%: [2.95]

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

AAF: *Head Circumference*—[sketch indicates . . . above brow ridges]  
ARMY '66: *Head Circumference*—just above the bony brow ridges  
ARMY ARMORED: *Head Circumference*—[reference generally follows reference AAF]  
ARMY AVIATORS: *Head Circumference*—above the brow ridges  
ARMY QM: *Head Circumference*—above the brow ridges  
BULGARIA: *Head Circumference*—from glabella  
FAA: *Head Circumference*—immediately above the brow ridges  
FRANCE '55: *Tour de tête*—[touching the occipital, parietal, temporal and frontal regions]  
FRANCE '65: *Périmètre de la tête*—[between the frontal lobes and the eyebrow arches]  
HRDLICKA: *Head Circumference*—above the . . . ridges  
JAPAN: *Head Circumference*—above . . . the brow ridges  
KOREA: *Head Circumference*—above . . . the brow ridges  
MARTIN: *Horizontalumfang des Kopfes*—[tape . . . on glabella]  
MCNTAGU: *Maximum Circumference of the Head*—to the glabella  
NATO: *Head Circumference*—above . . . the brow ridges  
NAVY RECRUITS: *Head Circumference*—just above the bony brow ridges  
THAI: *Head Circumference*—above eyebrow ridges  
USAF '50: *Head Circumference*—above . . . the brow ridges  
USMC: *Head Circumference*—just above the bony brow ridges  
USN: *Head Circumference*—above . . . the brow ridges  
VIETNAM: *Head Circumference*—above eyebrow ridges  
WAC: *Head Circumference*—just above glabella  
WAF RECRUITS: *Head Circumference*—over [above] the brow ridges  
WASP: *Head Circumference*—[sketch indicates . . . above brow ridges]

#### Indeterminable:

TUFTS: *Circumference [Head]*—[no landmarks specified]

## HEAD DIAGONAL: NUCHALE TO PRONASALE

Reference: NATO

Subject sits erect, his head in the Frankfort plane. With one arm of the anthropometer held at the nuchale landmark *†the lowest point in the mid-sagittal plane of the occiput that can be palpated amid the nuchal muscles†*, measure the maximum diagonal distance to the tip of the nose.

	<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N:	915	1084	1358
$\bar{X}$ :	19.84 cm; 7.81 in	19.96 cm; 7.86 in	20.10 cm; 7.91 in
SD:	0.82 cm; 0.32 in	0.74 cm; 0.29 in	0.77 cm; 0.30 in
V%:	4.15	3.72	3.84

Similar Dimensions:

None

See Also:

*Head Length*

## HEAD-EYEBROW ARC

Reference: FAA

The length of the arc between the points of greatest indentation of the temporal crests.

N:	478
$\bar{X}$ :	35.26 cm; 13.88 in
SD:	1.60 cm; 0.63 in
V%:	4.55

Similar Dimensions:

Equivalent:

KOREA: *Minimum Frontal Arc*  
NATO: *Minimum Frontal Arc*  
USAF '50: *Minimum Frontal Arc*

Not Equivalent:

None

Indeterminable:

None

## HEAD HEIGHT

Reference: AAF

Head in horizontal plane determined by line joining bottom of bony orbit and the trigion point *†where the tragus of the ear terminates superiorly, i.e., the superior corner, toward the head, of the main excavation (concha) of the external ear†*. Perpendicular height from trigion to mid-longitudinal line on top of head; average of readings for both sides.

Cadets	Gunners
N: 2956	584
Median: 15.22 cm; 5.2 in	13.02 cm; 5.1 in
SD: NDA	NDA
V%: NDA	NDA

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Head Height (Trigion-Vertex Height)*  
 ARMY ARMORED: *Head Height*  
 ARMY AVIATORS: *Head Height*  
 COMAS: *Height of the Head*  
 KOREA: *Head Height (Trigion to Vertex)*  
 MARTIN-SALLER: *Ohrhoehe des Kopfes*  
 NATO: *Trigion-to-Vertex Height*  
 NAVY RECRUITS: *Head Height (Trigion-Vertex Height)*  
 THAI: *Head Height*  
 TUFTS: *Head Height*  
 USAF '50: *Head Height (Trigion to Vertex)*  
 USMC: *Head Height (Trigion-Vertex Height)*  
 USN: *Head Height (Trigion to Vertex)*  
 VIETNAM: *Head Height*

#### Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex  
 HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
 MARTIN: *Ganze Kopfhoehe*—[Projected distance from the vertex to gnathion]  
 MARTIN: *Ohrhoehe des Kopfes*—[from trigion to bregma]  
 MONTAGU: *Head Height*—[from roof of ear hole† to the level of the top of the head]  
 MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
 WAC: *Head Height*—from apex . . . to the center of the tragus

*Head Height—AAF (Continued)*

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

**HEAD HEIGHT (TRAGION-VERTEX HEIGHT)**

Reference: ARMY '66

Subject sits erect, with head level. Head height is measured as the vertical distance from the cartilaginous notch (tragion) at the front of the right ear to the top of the head (vertex). An anthropometer is used.

N: 6682  
 $\bar{X}$ : 13.23 cm; 5.21 in  
SD: 0.78 cm; 0.31 in  
V%: 5.99

Similar Dimensions:

Equivalent:

AAF: *Head Height*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
COMAS: *Height of the Head*  
KOREA: *Head Height (Tragion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
THAI: *Head Height*  
TUFTS: *Head Height*  
USAF '50: *Head Height (Tragion to Vertex)*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height (Tragion to Vertex)*  
VIETNAM: *Head Height*

Not Equivalent:

ARMY QM: *Head-Height—between porion . . . and apex*  
HRDLICKA: *Height of the Head—from the middle of the line connecting the floor of the 2 auditory canals, to bregma*

*Head Height (Tragion-Vertex Height)—ARMY '66 (Continued)*

MARTIN: *Ganze Kopshoehe*—[Projected distance from the vertex to gnathion]

MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]

MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head

MONACO: *Hauteur de la tete*—[[from] vertex [to] the superior border of the auditory opening]

WAC: *Head Height*—from apex . . . to the center of the tragus

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

## HEAD HEIGHT

Reference: ARMY ARMORED

Head in horizontal eye-ear plane. Perpendicular height from tragion *[where the tragus of the ear terminates superiorly, i.e., the superior corner, toward the head, of the main excavation (concha) of the external ear]* to mid-longitudinal line on top of head; average of readings for both sides.

Reference cites AAF data for this dimension.

Similar Dimensions:

Equivalent:

AAF: *Head Height*

ARMY '66: *Head Height (Tragion-Vertex Height)*

ARMY AVIATORS: *Head Height*

COMAS: *Height of the Head*

KOREA: *Head Height (Tragion to Vertex)*

MARTIN-SALLER: *Ohrhoehe des Kopfes*

NATO: *Tragion-to-Vertex Height*

NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*

THAI: *Head Height*

TUFTS: *Head Height*

USAF '50: *Head Height (Tragion to Vertex)*

USMC: *Head Height (Tragion-Vertex Height)*

USN: *Head Height (Tragion to Vertex)*

VIETNAM: *Head Height*

*Head Height—ARMY ARMORED (Continued)*

Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhöhe des Kopfes*—[from trigion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

Indeterminable:

None

See Also:

*Trigion to Wall Distance*

**HEAD HEIGHT**

Reference: **ARMY AVIATORS**

The vertical distance from the notch (trigion) just forward of the upper edge of the right ear hole to the top of the head.

N: 000  
 $\bar{X}$ : 12.67 cm; 4.99 in  
SD: 0.64 cm; 0.25 in  
V%: [5.05]

Similar Dimensions:

Equivalent:

AAF: *Head Height*  
ARMY '66: *Head Height (Trigion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
COMAS: *Height of the Head*  
KOREA: *Head Height (Trigion to Vertex)*  
MARTIN-SALLER: *Ohrhöhe des Kopfes*  
NATO: *Trigion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Trigion-Vertex Height)*

**Head Height—ARMY AVIATORS (Continued)**

THAI: *Head Height*  
TUFTS: *Head Height*  
USAF '50: *Head Height (Tragion to Vertex)*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height (Tragion to Vertex)*  
VIETNAM: *Head Height*

**Not Equivalent:**

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhöhe des Kopfes*—[from tragion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

**Indeterminable:**

None

**See Also:**

*Tragion to Wall Distance*

**HEAD HEIGHT**

**Reference: ARMY QM**

†Subject stands erect, with heels together and eyes straight ahead† With anthropometer held vertically, measurement is taken between porion †the highest point on the lateral margin of the external auditory meatus or ear opening† and apex †the point on the superior surface of the head in the mid-line vertically above porion†. Taken on right and left sides and average recorded.

N: 24630  
 $\bar{X}$ : 13.11 cm; 5.16 in  
SD: 0.60 cm; 0.24 in  
V%: [4.58]

*Head Height—ARMY QM (Continued)*

**Similar Dimensions:**

**Equivalent:**

MONTAGU: *Head Height*  
MONACO: *Hauteur de la tête*

**Not Equivalent:**

AAF: *Head Height*—from tracion to mid-longitudinal line on top of head  
ARMY '66: *Head Height (Tracion-Vertex Height)*—from . . . (tracion) . . . to the top of the head (vertex)  
ARMY ARMORED: *Head Height*—from tracion to mid-longitudinal line on top of head  
ARMY AVIATORS: *Head Height*—from the notch (tracion) . . . to the top of the head  
COMAS: *Height of the Head*—from vertex to the tracion  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
KOREA: *Head Height (Tracion to Vertex)*—from . . . (tracion) . . . to the highest point of the head  
MARTIN: *Ganze Kopfhoehe*—[Projected distance from the vertex to gnathion]  
MARTIN-SALLER: *Ohrhoehe des Kopfes*—[from tracion to vertex]  
MARTIN: *Ohrhoehe des Kopfes*—[from tracion to bregma]  
NATO: *Tracion-to-Vertex Height*—vertical distance from tracion to vertex  
NAVY RECRUITS: *Head Height (Tracion-Vertex Height)*—from . . . (tracion) . . . to the top of the head (vertex)  
THAI: *Head Height*—from (tracion) to top of head (vertex)  
TUFTS: *Head Height*—from tracion . . . to mid-longitudinal line on top of head  
USAF '50: *Head Height (Tracion to Vertex)*—vertical distance from . . . (tracion) . . . to the highest point of the head  
USMC: *Head Height (Tracion-Vertex Height)*—from . . . (tracion) . . . to the top of the head (vertex)  
USN: *Head Height (Tracion to Vertex)*—vertical distance from tracion to vertex  
VIETNAM: *Head Height*—from . . . (tracion) to top of head (vertex)  
WAC: *Head Height*—from apex . . . to the center of the tragus

**Indeterminable:**

None

**See Also:**

*Tracion to Wall Distance*

## HEAD HEIGHT (TRAGION TO VERTEX)

Reference: KOREA

Subject holds his head in the Frankfort plane but turns it slightly to the left to clear the anthropometer. Measure the vertical distance from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the highest point of the head with the instrument arm firmly touching the scalp.

N: 264  
 $\bar{X}$ : 13.04 cm; 5.13 in  
SD: 0.89 cm; 0.36 in  
V%: 6.83

### Similar Dimensions:

#### Equivalent:

AAF: *Head Height*  
ARMY '66: *Head Height (Tragion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
COMAS: *Height of the Head*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
THAI: *Head Height*  
TUFTS: *Head Height*  
USAF '50: *Head Height (Tragion to Vertex)*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height (Tragion to Vertex)*  
VIETNAM: *Head Height*

#### Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhoehe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

#### Indeterminable:

None

#### See Also:

*Tragion to Wall Distance*

## HEAD HEIGHT

Reference: MONTAGU

(Todd's Head-Spanner)

The fiber-tipped movable horizontal rods are inserted into the ear holes so that they touch the roof of the latter, the rods are then secured by screws. The orbital arm is then placed at the level of the most inferior point on the infraorbital margin and kept there. As long as this position is maintained the head is in the Frankfurt Plane in relation to the measuring ruler. The latter is then released to the level of the top of the head, and the measurement read off.

No Data Available

Similar Dimensions:

Equivalent:

ARMY QM: *Head Height*

MONACO: *Hauteur de la tête*

Not Equivalent:

AAF: *Head Height*—from trigion to mid-longitudinal line on top of head

ARMY '66: *Head Height (Trigion-Vertex Height)*—from ... (trigion) ... to the top of the head (vertex)

ARMY ARMORED: *Head Height*—from trigion to mid-longitudinal line on top of head

ARMY AVIATORS: *Head Height*—from the notch (trigion) ... to the top of the head

COMAS: *Height of the Head*—from vertex to the trigion

HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma

KOREA: *Head Height (Trigion to Vertex)*—from ... (trigion) ... to the highest point of the head

MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]

MARTIN-SALLER: *Ohrhöhe des Kopfes*—[from trigion to vertex]

MARTIN: *Ohrhöhe des Kopfes*—[from trigion to bregma]

NATO: *Trigion-to-Vertex Height*—vertical distance from trigion to vertex

NAVY RECRUITS: *Head Height (Trigion-Vertex Height)*—from ... (trigion) ... to the top of the head (vertex)

THAI: *Head Height*—from (trigion) to top of head (vertex)

TUFTS: *Head Height*—from trigion ... to mid-longitudinal line on top of head

USAF '50: *Head Height (Trigion to Vertex)*—vertical distance from ... (trigion) ... to the highest point of the head

USMC: *Head Height (Trigion-Vertex Height)*—from ... (trigion) ... to the top of the head (vertex)

USN: *Head Height (Trigion to Vertex)*—vertical distance from trigion to vertex

*Head Height—MONTAGU (Continued)*

VIETNAM: *Head Height*—from . . . (tragion) to top of head (vertex)

WAC: *Head Height*—from apex . . . to the center of the tragus

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

**HEAD HEIGHT (TRAGION-VERTEX HEIGHT)**

Reference: NAVY RECRUITS

Subject sits erect, with head level. Head height is measured as the vertical distance from the cartilaginous notch (tragion) at the front of the right ear to the top of the head (vertex). An anthropometer is used.

N: 4095

$\bar{X}$ : 13.53 cm; 5.33 in

SD: 0.86 cm; 0.34 in

V%: 6.30

Similar Dimensions:

Equivalent:

AAF: *Head Height*

ARMY '66: *Head Height (Tragion-Vertex Height)*

ARMY ARMORED: *Head Height*

ARMY AVIATORS: *Head Height*

COMAS: *Height of the Head*

KOREA: *Head Height (Tragion to Vertex)*

MARTIN-SALLER: *Ohrhoehe des Kopfes*

NATO: *Tragion-to-Vertex Height*

THAI: *Head Height*

TUFTS: *Head Height*

USAF '50: *Head Height (Tragion to Vertex)*

USMC: *Head Height (Tragion-Vertex Height)*

USN: *Head Height (Tragion to Vertex)*

VIETNAM: *Head Height*

Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex

*Head Height (Tragion-Vertex Height)—NAVY RECRUITS (Continued)*

HRDIJČKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma

MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]

MARTIN: *Ohrhöhe des Kopfes*—[from tragion to bregma]

MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head

MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]

WAC: *Head Height*—from apex . . . to the center of the tragus

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

## HEAD HEIGHT

Reference: THAI

Measured as distance from notch at front of right ear (tragion) to top of head (vertex).

N: .2950

$\bar{X}$ : 12.8 cm; 5.04 in

S<sub>D</sub>: 1.0 cm; 0.39 in

V%: 7.8

Similar Dimensions:

Equivalent:

AAF: *Head Height*

ARMY '66: *Head Height (Tragion-Vertex Height)*

ARMY ARMORED: *Head Height*

ARMY AVIATORS: *Head Height*

COMAS: *Height of the Head*

KOREA: *Head Height (Tragion to Vertex)*

MARTIN-SALLER: *Ohrhöhe des Kopfes*

NATO: *Tragion-to-Vertex Height*

NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*

TUFTS: *Head Height*

USAF '50: *Head Height (Tragion to Vertex)*

***Head Height—THAI (Continued)***

USMC: *Head Height (Tragion-Vertex Height)*

USN: *Head Height (Tragion to Vertex)*

VIETNAM: *Head Height*

**Not Equivalent:**

ARMY QM: *Head-Height*—between porion . . . and apex

HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma

MARTIN: *Gauze Kopfhoehe*—[Projected distance from the vertex to gnathion]

MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]

MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head

MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]

WAC: *Head Height*—from apex . . . to the center of the tragus

**Indeterminable:**

None

**See Also:**

*Tragion to Wall Distance*

**HEAD HEIGHT**

**Reference: TUFTS**

Head in horizontal plane determined by line joining bottom of bony orbit and the tragion point. Perpendicular height from tragion †the point where the tragus of the ear terminates superiorly, i.e., the superior corner, toward the head, of the main excavation (concha) of the external ear† to mid-longitudinal line on top of head; average of readings for both sides.

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Height*

ARMY '66: *Head Height (Tragion-Vertex Height)*

ARMY ARMORED: *Head Height*

ARMY AVIATORS: *Head Height*

*Head Height—TUFTS (Continued)*

COMAS: *Height of the Head*  
KOREA: *Head Height (Tragion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
THAI: *Head Height*  
USAF '50: *Head Height (Tragion to Vertex)*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height (Tragion to Vertex)*  
VIETNAM: *Head Height*

Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhoehe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

**HEAD HEIGHT (TRAGION TO VERTEX)**

Reference: USAF '50

Subject holds his head in the Frankfort plane but turns it slightly to the left to clear the anthropometer. Measure the vertical distance from the cartilaginous notch (tragion) just forward of the upper edge of the right ear hole to the highest point of the head with the instrument arm firmly touching the scalp.

N: 4061  
 $\bar{X}$ : 12.97 cm; 5.11 in  
SD: 0.77 cm; 0.30 in  
V%: 5.50

*Head Height (Tragion to Vertex)—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Height*  
ARMY '66: *Head Height (Tragion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
COMAS: *Height of the Head*  
KOREA: *Head Height (Tragion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
THAI: *Head Height*  
TUFTS: *Head Height*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height (Tragion to Vertex)*  
VIETNAM: *Head Height*

**Not Equivalent:**

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

**Indeterminable:**

None

**See Also:**

*Tragion to Wall Distance*

**HEAD HEIGHT (TRAGION-VERTEX HEIGHT)**

**Reference: USMC**

Subject sits erect, with head level. Head height is measured as the vertical distance

*Head Height (Tragion-Vertex Height)—USMC (Continued)*

from the cartilaginous notch (tragion) at the front of the right ear to the top of the head (vertex). An anthropometer is used.

N: 2008  
 $\bar{X}$ : 13.38 cm; 5.27 in  
SD: 0.68 cm; 0.27 in  
V%: 5.10

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Height*  
ARMY '66: *Head Height (Tragion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
COMAS: *Height of the Head*  
KOREA: *Head Height (Tragion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
THAI: *Head Height*  
TUFTS: *Head Height*  
USAF '50: *Head Height (Tragion to Vertex)*  
USN: *Head Height (Tragion to Vertex)*  
VIETNAM: *Head Height*

**Not Equivalent:**

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhoehe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

**Indeterminable:**

None

**See Also:**

*Tragion to Wall Distance*

## HEAD HEIGHT (TRAGION TO VERTEX)

Reference: USN

Subject stands comfortably under the headboard with his head oriented in the Frankfort plane. The headboard slide is then adjusted so that its wall and ceiling surfaces rest snugly against the back and vertex *†the top of the head in the midsagittal plane when the head is held in the Frankfort plane†* of the subject's head. His head is then rechecked for orientation and for continued contact at both points. Using the height gauge, measure the vertical distance from tracion to vertex.

N: 1549  
 $\bar{X}$ : 13.11 cm; 5.16 in  
SD: 0.64 cm; 0.25 in  
V%: 4.91

### Similar Dimensions:

#### Equivalent:

AAF: *Head Height*  
ARMY '66: *Head Height (Tracion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
COMAS: *Height of the Head*  
KOREA: *Head Height (Tracion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tracion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tracion-Vertex Height)*  
THAI: *Head Height*  
TUFTS: *Head Height*  
USAF '50: *Head Height (Tracion to Vertex)*  
USMC: *Head Height (Tracion-Vertex Height)*  
VIETNAM: *Head Height*

#### Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopshoehe*—[Projected distance from the vertex to gnathion]  
MARTIN: *Ohrhoehe des Kopfes*—[from tracion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[ from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of the tragus

*Head Height (Tragion to Vertex)—USN (Continued)*

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

**HEAD HEIGHT**

Reference: VIETNAM

Measured as distance from notch at front of right ear (tragion) to top of head (vertex).

N: 2125  
 $\bar{X}$ : 12.3 cm; 4.84 in  
SD: 0.8 cm; 0.31 in  
V%: 6.5

Similar Dimensions:

Equivalent:

AAF: *Head Height*  
ARMY '66: *Head Height (Tragion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
COMAS: *Height of the Head*  
KOREA: *Head Height (Tragion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
THAI: *Head Height*  
TUFTS: *Head Height*  
USAF '50: *Head Height (Tragion to Vertex)*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height (Tragion to Vertex)*

Not Equivalent:

ARMY QM: *Head-Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopfhoehe*—[Projected distance from the vertex to gnathion]

*Head Height—VIETNAM (Continued)*

MARTIN: *Ohrhoehe des Kopfes*—[from trigion to bregma]

MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head

MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditor opening]

WAC: *Head Height*—from apex . . . to the center of the tragus

Indeterminable:

None

See Also:

*Trigion to Wall Distance*

**HEAD HEIGHT**

Reference: WAC

†Subject sat erect† eyes on imaginary horizon and head level. Anthropometer held vertically to left of subject. Measurement taken from apex †that point on the superior surface of the head in the mid-sagittal plane vertically above trigion† to the center of the tragus. Left side only.

N: 8499

$\bar{X}$ : 13.17 cm; 5.19 in

SD: 0.90 cm; 0.35 in

V%: [6.83]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Head Height*—from trigion to mid-longitudinal line on top of head

ARMY '66: *Head Height (Trigion-Vertex Height)*—from . . . (trigion) . . . to the top of the head (vertex)

ARMY ARMORED: *Head Height*—from trigion to mid-longitudinal line on top of head

ARMY AVIATORS: *Head Height*—from the notch (trigion) . . . to the top of the head

*Head Height—WAC (Continued)*

ARMY QM: *Head-Height*—between porion . . . and apex  
COMAS: *Height of the Head*—from vertex to the trigion  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
KOREA: *Head Height (Trigion to Vertex)*—from . . . (trigion) . . . to the highest point of the head  
MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]  
MARTIN-SALLER: *Ohrhöhe des Kopfes*—[from trigion to vertex]  
MARTIN: *Ohrhöhe des Kopfes*—[from trigion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
NATO: *Trigion-to-Vertex Height*—vertical distance from trigion to vertex  
NAVY RECRUITS: *Head Height (Trigion-Vertex Height)*—from . . . (trigion) . . . to the top of the head (vertex)  
THAI: *Head Height*—from (trigion) to top of head (vertex)  
TUFTS: *Head Height*—from trigion . . . to mid-longitudinal line on top of head  
USAF '50: *Head Height (Trigion to Vertex)*—vertical distance from . . . (trigion) . . . to the highest point of the head  
USMC: *Head Height (Trigion-Vertex Height)*—from . . . (trigion) . . . to the top of the head (vertex)  
USN: *Head Height (Trigion to Vertex)*—vertical distance from trigion to vertex  
VIETNAM: *Head Height*—from . . . (trigion) to top of head (vertex)

Indeterminable:

None

See Also:

*Trigion to Wall Distance*

## HEAD LENGTH

Reference: ARMY '66

Subject sits erect, with head level. The maximum length of the head is measured from the back of the head (occiput) to the forehead (glabella). Spreading calipers are used.

N: 6582  
 $\bar{X}$ : 19.45 cm; 7.66 in  
SD: 0.73 cm; 0.29 in  
V%: 3.77

*Head Length—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

HRDLICKA: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

**Not Equivalent:**

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
COMAS: *Head Length*—in the median sagittal line of the occiput  
FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]  
MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)  
NORWAY: *Maximum Head Length*—the occiput . . . in the middle line  
THAI: *Head Length*—back of head (posterior pole of occiput)  
TUFTS: *Head Length*—back of skull, in the mid-line  
VIETNAM: *Head Length*—back of head (posterior pole of occiput)  
WAC: *Head Length*—in the mid-sagittal plane.  
WAF RECRUITS: *Head Length*—in the sagittal plane

**Indeterminable:**

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

**See Also:**

*Head Diagonal: Nuchale to Pronasale*

**HEAD LENGTH**

**Reference: ARMY AVIATORS**

The maximum length of the head.

*Head Length--ARMY AVIATORS (Continued)*

N: 500  
 $\bar{X}$ : 19.74 cm; 7.77 in  
SD: 0.69 cm; 0.27 in  
V%: [3.50]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

None

**Indeterminable:**

In the following sources, landmarks are specified.

ARMY '66: *Head Length*  
ARMY QM: *Head Length*  
COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
HRDLICKA: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MARTIN: *Groesste Laenge des Kopfes*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
THAI: *Head Length*  
TUFTS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*  
VIETNAM: *Head Length*  
WAC: *Head Length*  
WAF RECRUITS: *Head Length*

**See Also:**

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: ARMY QM

The maximum length of the head taken from glabella to the most anterior point in the mid-line of the head between the brow ridges to the most posterior point in the midline of the head.

N: 24471  
 $\bar{X}$ : 19.47 cm; 7.67 in  
SD: 0.70 cm; 0.28 in  
V%: [3.60]

### Similar Dimensions:

#### Equivalent:

COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tete*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
THAI: *Head Length*  
TUFTS: *Head Length*  
VIETNAM: *Head Length*  
WAC: *Head Length*  
WAF RECRUITS: *Head Length*

#### Not Equivalent:

HRDLICKA: *Head Length*—without regard to the mid-line posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line. They are, therefore, considered *Not Equivalent*.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tete ou diametre antero-posterieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

*Head Length—ARMY QM (Continued)*

Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: COMAS

†With subject in sitting position† [T]he maximum length of the head from glabella  
†the most prominent point between the eyebrows in the median sagittal plane† to  
opisthocranium †that point in the median sagittal line of the occiput which is most  
distant from the glabella† (spreading caliper).

No Data Available

Similar Dimensions:

Equivalent:

ARMY QM: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
THAI: *Head Length*  
TUFTS: *Head Length*  
VIETNAM: *Head Length*  
WAC: *Head Length*  
WAF RECRUITS: *Head Length*

Not Equivalent:

HRDLICKA: *Head Length*—without regard to the mid-line posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line. They are, therefore, considered *Not Equivalent*.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*

*Head Length—COMAS (Continued)*

NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: HRDLÍČKA

The maximum glabello-occipital diameter of the vault, without regard to the midline posteriorly.

No Data Available

Similar Dimensions:

Equivalent:

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

Not Equivalent:

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
COMAS: *Head Length*—in the median sagittal line of the occiput  
FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]

*Head Length—HRDLIČKA (Continued)*

MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)

NORWAY: *Maximum Head Length*—the occiput . . . in the middle line

THAI: *Head Length*—back of head (posterior pole of occiput)

TUFTS: *Head Length*—back of skull, in the mid-line

VIETNAM: *Head Length*—back of head (posterior pole of occiput)

WAC: *Head Length*—in the mid-sagittal plane

WAF RECRUITS: *Head Length*—in the sagittal plane

Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: JAPAN

Holding the spreading caliper near its tips, measure the maximum length of the head from glabella *(the most forward point in the midline of the forehead between the brow ridges)* (on the forehead) to the occipital region.

N: 236

$\bar{X}$ : 18.66 cm; 7.35 in

SD: 0.78 cm; 0.31 in

V%: 4.20

Similar Dimensions:

Equivalent:

ARMY '66: *Head Length*

HRDLIČKA: *Head Length*

KOREA: *Head Length*

MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*

NATO: *Head Length*

NAVY RECRUITS: *Head Length*

USAF '50: *Head Length*

USMC: *Head Length*

USN: *Head Length*

*Head Length—JAPAN (Continued)*

Not Equivalent:

ARMY QM: *Head Length*—most posterior point in the mid-line of the head

COMAS: *Head Length*—in the median sagittal line of the occiput

FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]

MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]

MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)

NORWAY: *Maximum Head Length*—the occiput . . . in the middle line

THAI: *Head Length*—back of head (posterior pole of occiput)

TUFTS: *Head Length*—back of skull, in the mid-line

VIETNAM: *Head Length*—back of head (posterior pole of occiput)

WAC: *Head Length*—in the mid-sagittal plane.

WAF RECRUITS: *Head Length*—in the sagittal plane

Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

See Also:

*Head Diagonal: Nuchale to Pronasale*

HEAD LENGTH

Reference: KOREA

Holding the spreading caliper near its tips, measure the maximum length of the head from glabella to the most forward point in the midline of the forehead between the brow ridges (on the forehead) to the occipital region.

N: 264

$\bar{X}$ : 18.41 cm; 7.25 in

SD: 0.66 cm; 0.26 in

V%: 3.57

Similar Dimensions:

Equivalent:

ARMY '66: *Head Length*

HRDLICKA: *Head Length*

JAPAN: *Head Length*

### Head Length—KOREA (Continued)

MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
 NATO: *Head Length*  
 NAVY RECRUITS: *Head Length*  
 USAF '50: *Head Length*  
 USMC: *Head Length*  
 USN: *Head Length*

#### Not Equivalent:

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
 COMAS: *Head Length*—in the median sagittal line of the occiput  
 FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
 MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]  
 MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)  
 NORWAY: *Maximum Head Length*—the occiput . . . in the middle line  
 THAI: *Head Length*—back of head (posterior pole of occiput)  
 TUFTS: *Head Length*—back of skull, in the mid-line  
 VIETNAM: *Head Length*—back of head (posterior pole of occiput)  
 WAC: *Head Length*—in the mid-sagittal plane  
 WAF RECRUITS: *Head Length*—in the sagittal plane

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

#### Reference: NATO

Subject sits. Holding the spreading caliper near the tips, measure the maximum length of the head between the glabella landmark †the most anterior point in the mid-line of the forehead between the browridges‡ on the forehead and the occiput.

Turkey	Greece	Italy
N: 915	1084	1358
$\bar{X}$ : 18.59 cm; 7.32 in	18.88 cm; 7.43 in	19.30 cm; 7.60 in
SD: 0.65 cm; 0.26 in	0.68 cm; 0.27 in	0.66 cm; 0.26 in
V%: 3.50	3.60	3.41

### *Head Length—NATO (Continued)*

#### **Similar Dimensions:**

##### **Equivalent:**

ARMY '66: *Head Length*  
HRDLICKA: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

##### **Nct Equivalent:**

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
COMAS: *Head Length*—in the median sagittal line of the occiput  
FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]  
MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)  
NORWAY: *Maximum Head Length*—the occiput . . . in the middle line  
THAI: *Head Length*—back of head (posterior pole of occiput)  
TUFTS: *Head Length*—back of skull, in the mid-line  
VIETNAM: *Head Length*—back of head (posterior pole of occiput)  
WAC: *Head Length*—in the mid-sagittal plane  
WAF RECRUITS: *Head Length*—in the sagittal plane

##### **Indeterminable:**

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### **See Also:**

*Head Diagonal: Nuchale to Pronasale*

## **HEAD LENGTH**

#### **Reference: NAVY RECRUITS**

Subject sits erect, with head level. The maximum length of the head is measured from the back of the head (occiput) to the forehead (glabella). Spreading calipers are used.

*Head Length—NAVY RECRUITS (Continued)*

N: 4695  
 $\bar{X}$ : 19.43 cm; 7.65 in  
SD: 0.71 cm; 0.28 in  
V%: 3.71

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Head Length*  
HRDLICKA: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

**Not Equivalent:**

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
COMAS: *Head Length*—in the median sagittal line of the occiput  
FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
MARTIN: *Großte Länge des Kopfes*—[back of the head in the mid-sagittal plane]  
MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)  
NORWAY: *Maximum Head Length*—the occiput . . . in the middle line  
THAI: *Head Length*—back of head (posterior pole of occiput)  
TUFTS: *Head Length*—back of skull, in the mid-line  
VIETNAM: *Head Length*—back of head (posterior pole of occiput)  
WAC: *Head Length*—in the mid-sagittal plane  
WAF RECRUITS: *Head Length*—in the sagittal plane

**Indeterminable:**

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

**See Also:**

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: THAI

Measured as maximum length of head from middle of forehead just above eyes (glabella) to back of head (posterior pole of occiput).

N: 2950  
 $\bar{X}$ : 17.9 cm; 7.0 in  
SD: 0.6 cm; 0.2 in  
V%: 3.4

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Head Length*  
COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
TUFTS: *Head Length*  
VIETNAM: *Head Length*  
WAC: *Head Length*  
WAF RECRUITS: *Head Length*

#### Not Equivalent:

HRDLIČKA: *Head Length*—without regard to the mid-line posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line. They are, therefore, considered *Not Equivalent*.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

### Reference: TUFTS

Glabella (most anterior point of supra-orbital ridges, in mid-line) to opisthocranium (most posterior point of occiput, or back of skull, in the mid-line). Moderate pressure.

No Data Available.

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Head Length*  
COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
THAI: *Head Length*  
VIETNAM: *Head Length*  
WAC: *Head Length*  
WAF RECRUITS: *Head Length*

#### Not Equivalent:

HRDLICKA: *Head Length*—without regard to the mid-line posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: USAF '50

Holding the spreading caliper near its tips, measure the maximum length of the head from glabella ~~†the most forward point in the midline of the forehead between the brow ridges†~~ (on the forehead) to the occipital region.

N: 4063

$\bar{X}$ : 19.71 cm; 7.76 in

SD: 0.64 cm; 0.25 in

V%: 3.26

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Head Length*

HRDLICKA: *Head Length*

JAPAN: *Head Length*

KOREA: *Head Length*

MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*

NATO: *Head Length*

NAVY RECRUITS: *Head Length*

USMC: *Head Length*

USN: *Head Length*

#### Not Equivalent:

ARMY QM: *Head Length*—most posterior point in the mid-line of the head

COMAS: *Head Length*—in the median sagittal line of the occiput

FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]

MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]

MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)

NORWAY: *Maximum Head Length*—the occiput . . . in the middle line

THAI: *Head Length*—back of head (posterior pole of occiput)

TUFTS: *Head Length*—back of skull, in the mid-line

VIETNAM: *Head Length*—back of head (posterior pole of occiput)

WAC: *Head Length*—in the mid-sagittal plane

WAF RECRUITS: *Head Length*—in the sagittal plane

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: USMC

Subject sits erect, with head level. The maximum length of the head is measured from the back of the head (occiput) to the forehead (glabella). Spreading calipers are used.

N: 2003  
 $\bar{X}$ : 19.43 cm; 7.65 in  
SD: 0.71 cm; 0.28 in  
V%: 3.73

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Head Length*  
HRDLICKA: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USN: *Head Length*

#### Not Equivalent:

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
COMAS: *Head Length*—in the median sagittal line of the occiput  
FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]  
MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)  
NORWAY: *Maximum Head Length*—the occiput . . . in the middle line  
THAI: *Head Length*—back of head (posterior pole of occiput)  
TUFTS: *Head Length*—back of skull, in the mid-line  
VIETNAM: *Head Length*—back of head (posterior pole of occiput)  
WAC: *Head Length*—in the mid-sagittal plane  
WAF RECRUITS: *Head Length*—in the sagittal plane

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: USN

Subject sits. Holding the spreading caliper near the tips, measure the maximum length of the head between the glabella landmark *†the most anterior point in the mid-line of the forehead between the browridges†* on the forehead and the occiput.

N: 1543  
 $\bar{X}$ : 19.83 cm; 7.81 in  
SD: 0.66 cm; 0.26 in  
V%: 3.32

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Head Length*  
HRDLICKA: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*

#### Not Equivalent:

ARMY QM: *Head Length*—most posterior point in the mid-line of the head  
COMAS: *Head Length*—in the median sagittal line of the occiput  
FRANCE '65: *Longueur maximum de la tête*—[in the median plane of the occiput]  
MARTIN: *Groesste Laenge des Kopfes*—[back of the head in the mid-sagittal plane]  
MONTAGU: *Maximum Head Length*—in the mid-sagittal plane, on the back of the head (occiput)  
NORWAY: *Maximum Head Length*—the occiput . . . in the middle line  
THAI: *Head Length*—back of head (posterior pole of occiput)  
TUFTS: *Head Length*—back of skull, in the mid-line  
VIETNAM: *Head Length*—back of head (posterior pole of occiput)  
WAC: *Head Length*—in the mid-sagittal plane  
WAF RECRUITS: *Head Length*—in the sagittal plane

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

Reference: VIETNAM

Measured as maximum length of head from middle of forehead just above eyes (glabella) to back of head (posterior pole of occiput).

N: 2127  
 $\bar{X}$ : 18.2 cm; 7.2 in  
SD: 0.7 cm; 0.3 in  
V%: 3.8

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Head Length*  
COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
THAI: *Head Length*  
TUFTS: *Head Length*  
WAC: *Head Length*  
WAF RECRUITS: *Head Length*

#### Not Equivalent:

HRDLICKA: *Head Length*—without regard to the mid-line posteriorly  
In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

#### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

### Reference: WAC

Subject sat erect with eyes on an imaginary horizon. Measurement taken as the maximum head length from glabella †the point where a line drawn tangential to the superior border of the eyebrows crosses the mid-sagittal plane of the head† in the mid-sagittal plane.

N: 8451  
 $\bar{X}$ : 18.37 cm; 7.23 in  
SD: 0.65 cm; 0.26 in  
V%: [3.54]

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Head Length*  
COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
THAI: *Head Length*  
TUFTS: *Head Length*  
VIETNAM: *Head Length*  
WAF RECRUITS: *Head Length*

#### Not Equivalent:

HRDLICKA: *Head Length*—without regard to the mid-line posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEAD LENGTH

### Reference: WAF RECRUITS

With the spreading caliper, measure the maximum length of the head from glabella †the most forward portion in the mid-line of the head between the brow ridges† to the occipital region of the head in the sagittal plane.

N: 847  
 $\bar{X}$ : 17.28 cm; 6.84 in  
SD: 0.75 cm; 0.30 in  
V%: 4.31

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Head Length*  
COMAS: *Head Length*  
FRANCE '65: *Longueur maximum de la tête*  
MARTIN: *Groesste Laenge des Kopfes*  
MONTAGU: *Maximum Head Length*  
NORWAY: *Maximum Head Length*  
THAI: *Head Length*  
TUFTS: *Head Length*  
VIETNAM: *Head Length*  
WAC: *Head Length*

#### Not Equivalent:

HRDLICKA: *Head Length*—without regard to the mid-line posteriorly

In the following dimensions, the plane of the landmark on the occiput is not specified. In all cases, however, the maximum dimension is sought. It is assumed that the landmark at occiput need not necessarily be in the mid-line.

ARMY '66: *Head Length*  
JAPAN: *Head Length*  
KOREA: *Head Length*  
MONACO: *Longueur maxima de la tête ou diamètre antéro-postérieur maximum*  
NATO: *Head Length*  
NAVY RECRUITS: *Head Length*  
USAF '50: *Head Length*  
USMC: *Head Length*  
USN: *Head Length*

#### Indeterminable:

ARMY AVIATORS: *Head Length*—[landmarks are not specified]

### See Also:

*Head Diagonal: Nuchale to Pronasale*

## HEEL-ANKLE CIRCUMFERENCE

Reference: ARMY '66

Subject stands erect, with his feet slightly apart, and with his weight evenly distributed on both feet. The diagonal circumference of the right ankle is measured. A steel tape is used, with the tape passing under the tip of the heel and over the junction of the leg and the foot.

N: 6682  
 $\bar{X}$ : 34.11 cm; 13.43 in  
SD: 1.65 cm; 0.65 in  
V%: 4.86

### Similar Dimensions:

#### Equivalent:

FOOT: *Diagonal Ankle Girth*  
MORANT: *Diagonal Ankle Girth*  
NAVY RECRUITS: *Heel-Ankle Circumference*  
THAI: *Heel-Ankle Circumference*  
USMC: *Heel-Ankle Circumference*  
VIETNAM: *Heel-Ankle Circumference*

#### Not Equivalent:

None

#### Indeterminable:

None

#### See Also:

*Instep Circumference*

## HEEL-ANKLE CIRCUMFERENCE

Reference: NAVY RECRUITS

Subject stands erect, with his feet slightly apart, and with his weight evenly distributed on both feet. The diagonal circumference of the right ankle is measured. A steel tape is used, with the tape passing under the tip of the heel and over the junction of the leg and the foot.

*Heel-Ankle Circumference--NAVY RECRUITS (Continued)*

N: 4095  
 $\bar{X}$ : 34.21 cm; 13.47 in  
SD: 1.70 cm; 0.67 in  
V%: 5.01

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel-Ankle Circumference*  
FOOT: *Diagonal Ankle Girth*  
MORANT: *Diagonal Ankle Girth*  
THAI: *Heel-Ankle Circumference*  
USMC: *Heel-Ankle Circumference*  
VIETNAM: *Heel-Ankle Circumference*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Instep Circumference*

**HEEL-ANKLE CIRCUMFERENCE**

**Reference: USMC**

Subject stands erect, with his feet slightly apart, and with his weight evenly distributed on both feet. The diagonal circumference of the right ankle is measured. A steel tape is used, with the tape passing under the tip of the heel and over the junction of the leg and the foot.

N: 2007  
 $\bar{X}$ : 34.13 cm; 13.44 in  
SD: 1.60 cm; 0.63 in  
V%: 4.71

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel-Ankle Circumference*  
1031

*Heel-Ankle Circumference—USMC (Continued)*

FOOT: *Diagonal Ankle Girth*  
MORANT: *Diagonal Ankle Girth*  
NAVY RECRUITS: *Heel-Ankle Circumference*  
THAI: *Heel-Ankle Circumference*  
VIETNAM: *Heel-Ankle Circumference*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Instep Circumference*

**HEEL-ANKLE CIRCUMFERENCE**

Reference: VIETNAM

Measured as diagonal circumference around right ankle, with tape passing under tip of heel and over instep at junction of foot and leg.

N: 2123  
 $\bar{X}$ : 30.9 cm; 12.2 in  
SD: 1.4 cm; 0.6 in  
V%: 4.5

Similar Dimensions:

Equivalent:

ARMY '66: *Heel-Ankle Circumference*  
FOOT: *Diagonal Ankle Girth*  
MORANT: *Diagonal Ankle Girth*  
NAVY RECRUITS: *Heel-Ankle Circumference*  
THAI: *Heel-Ankle Circumference*  
USMC: *Heel-Ankle Circumference*

Not Equivalent:

None

*Heel-Ankle Circumference—VIETNAM (Continued)*

Indeterminable:

None

See Also:

*Instep Circumference*

**HEEL-ANKLE DIAGONAL [CIRCUMFERENCE]**

Reference: THAI

Measured as diagonal circumference around right ankle, with tape passing under tip of heel and over instep at junction of foot and leg.

N: 2950  
X: 32.2 cm; 12.7 in  
SD: 1.5 cm; 0.6 in  
V%: 4.7

Similar Dimensions:

Equivalent:

ARMY '66: *Heel-Ankle Circumference*  
FOOT: *Diagonal Ankle Girth*  
MORANT: *Diagonal Ankle Girth*  
NAVY RECRUITS: *Heel-Ankle Circumference*  
USMC: *Heel-Ankle Circumference*  
VIETNAM: *Heel-Ankle Circumference*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Instep Circumference*

## HEEL BREADTH

Reference: ARMY '66

Subject stands erect, with his feet slightly apart, and with his weight evenly distributed on both feet. The breadth of the right heel is measured below and behind the projections of the ankle bones (malleoli). Sliding calipers are used.

N: 6682  
 $\bar{X}$ : 6.85 cm; 2.70 in  
SD: 0.45 cm; 0.18 in  
V%: 6.84

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*  
USAF '50: *Heel Breadth*  
USMC: *Heel Breadth*  
VIETNAM: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

#### Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

#### Indeterminable:

None

## HEEL BREADTH

Reference: ARMY QM

†Subject stands with feet about one foot apart and with weight evenly distributed†  
Anthropometer held horizontally in rear of subject and perpendicular to the antero-posterior axis of the foot. Measurement is taken as the maximum diameter of the heel, posterior to the malleolus of the tibia, with firm contact.

N: 24341  
 $\bar{X}$ : 6.70 cm; 2.64 in  
SD: 0.53 cm; 0.21 in  
V%: [7.91]

*Heel Breadth—ARMY Q.M. (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*  
USAF '50: *Heel Breadth*  
USMC: *Heel Breadth*  
VIETNAM: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

**Not Equivalent:**

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**HEEL BREADTH**

**Reference: FOOT**

Breadth of heel 45mm forward of the posterior heel margin. [from photograph]

*White*

N: 5561  
 $\bar{X}$ : 6.96 cm; 2.74 in  
SD: 0.36 cm; 0.15 in  
V%: [5.17]

*Negro*

1197  
7.26 cm; 2.86 in  
0.37 cm; 0.15 in  
[5.10]

**Similar Dimensions:**

**Equivalent:**

MORANT: *Heel Breadth*

**Not Equivalent:**

ARMY '66: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones

*Heel Breadth—FOOT (Continued)*

ARMY QM: *Heel Breadth*—weight evenly distributed . . . maximum diameter  
KOREA: *Heel Breadth*—weight evenly distributed . . . maximum breadth  
NAVY RECRUITS: *Heel Breadth*—weight evenly distributed . . . below and  
behind the projections of the ankle bones  
THAI: *Heel Breadth*—maximum breadth  
USAF '50: *Heel Breadth*—maximum breadth  
USMC: *Heel Breadth*—weight evenly distributed . . . below and behind the  
projections of the ankle bones  
VIETNAM: *Heel Breadth*—maximum breadth  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool  
WAF RECRUITS: *Heel Width*—weight equally distributed . . . maximum width

Indeterminable:

None

**HEEL BREADTH**

**Reference: KOREA**

Subject stands with his weight equally distributed on both feet. From behind the subject and with the bar of the sliding caliper held in a plane at right angles to the long axis of the foot, measure the maximum breadth of the right heel behind the projections of the ankle bones.

N: 264  
 $\bar{X}$ : 6.29 cm; 2.48 in  
SD: 0.38 cm; 0.14 in  
V%: 5.98

**Similar Dimensions:**

Equivalent:

ARMY '66: *Heel Breadth*  
ARMY QM: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*  
USAF '50: *Heel Breadth*  
USMC: *Heel Breadth*  
VIETNAM: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

*Heel Breadth—KOREA (Continued)*

Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

None

**HEEL BREADTH**

**Reference: MORANT**

This is the maximum chord, taken with calipers, between the vertical lines marked at a distance of 45mm from the base of the measuring board when the foot is in the standard position (the heel is in contact with the base block and the medial side of the foot is in contact with the side block at the heel and at the ball). The chord is invariably almost horizontal.

N: 200  
 $\bar{X}$ : 6.92 cm; 2.72 in  
SD: 0.33 cm; 0.13 in  
V%: [4.78]

**Similar Dimensions:**

Equivalent:

FOOT: *Heel Breadth*

Not Equivalent:

ARMY '66: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones  
ARMY QM: *Heel Breadth*—weight evenly distributed . . . maximum diameter  
KOREA: *Heel Breadth*—weight evenly distributed . . . maximum breadth  
NAVY RECRUITS: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones  
THAI: *Heel Breadth*—maximum breadth  
USAF '50: *Heel Breadth*—maximum breadth  
USMC: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones  
VIETNAM: *Heel Breadth*—maximum breadth

*Heel Breadth—MORANT (Continued)*

WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

WAF RECRUITS: *Heel Width*—weight equally distributed . . . maximum width

Indeterminable:

None

**HEEL BREADTH**

**Reference: NAVY RECRUITS**

Subject stands erect, with his feet slightly apart, and with his weight evenly distributed on both feet. The breadth of the right heel is measured below and behind the projections of the ankle bones (malleoli). Sliding calipers are used.

N: 4095

$\bar{X}$ : 6.70 cm; 2.64 in

SD: 0.43 cm; 0.17 in

V%: 6.42

**Similar Dimensions:**

Equivalent:

ARMY '66: *Heel Breadth*

ARMY QM: *Heel Breadth*

KOREA: *Heel Breadth*

THAI: *Heel Breadth*

USAF '50: *Heel Breadth*

USMC: *Heel Breadth*

VIETNAM: *Heel Breadth*

WAF RECRUITS: *Heel Width*

Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel

MORANT: *Heel Breadth*—45mm from the base of the measuring board

WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

None

## HEEL BREADTH

Reference: THAI

Measured as maximum breadth of right heel behind and below projections of ankle bones (malleoli).

N: 2950  
 $\bar{X}$ : 6.5 cm; 2.6 in  
SD: 0.4 cm; 0.2 in  
V%: 6.2

Similar Dimensions:

Equivalent:

ARMY '66: *Heel Breadth*  
ARMY QM: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
USAF '50: *Heel Breadth*  
USMC: *Heel Breadth*  
VIETNAM: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

None

## HEEL BREADTH

Reference: USAF '50

Subject stands with his weight equally distributed on both feet. From behind the subject with the bar of the sliding caliper held in a plane at right angles to the long axis of the foot, measure the maximum breadth of the right heel behind the projections of the ankle bones.

N: 4061  
 $\bar{X}$ : 6.70 cm; 2.64 in  
SD: 0.39 cm; 0.15 in  
V%: 5.79

*Heel Breadth—USAF '50 (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel Breadth*  
ARMY QM: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*  
USMC: *Heel Breadth*  
VIETNAM: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

**Not Equivalent:**

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

**Indeterminable:**

None

**HEEL BREADTH**

**Reference: USMC**

Subject stands erect, with his feet slightly apart, and with his weight evenly distributed on both feet. The breadth of the right heel is measured below and behind the projections of the ankle bones (malleoli). Sliding calipers are used.

N: 2008  
 $\bar{X}$ : 6.83 cm; 2.69 in  
SD: 0.43 cm; 0.17 in  
V%: 6.42

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel Breadth*  
ARMY QM: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*

*Heel Breadth—USMC (Continued)*

USAF '50: *Heel Breadth*  
VIETNAM: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

None

**HEEL BREADTH**

**Reference: VIETNAM**

Measured as maximum breadth of right heel behind and below projections of the ankle bones (malleoli).

N: 2127  
 $\bar{X}$ : 6.2 cm; 2.4 in  
SD: 0.4 cm; 0.2 in  
V%: 6.4

**Similar Dimensions:**

Equivalent:

ARMY '66: *Heel Breadth*  
ARMY QM: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*  
USAF '50: *Heel Breadth*  
USMC: *Heel Breadth*  
WAF RECRUITS: *Heel Width*

Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel  
MORANT: *Heel Breadth*—45mm from the base of the measuring board  
WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

None

## HEEL BREADTH

### Reference: WAC

†Subject stands on left foot with right foot placed on a stool directly to the front† Anthropometer held parallel to the floor and perpendicular to the anterior-posterior axis of the left foot. The needles of the anthropometer were directed downward at approximately a 45-degree angle. Measurement taken as the maximum width of the heel posterior to the malleoli.

N: 1940  
 $\bar{X}$ : 5.97 cm; 2.35 in  
SD: 0.42 cm; 0.17 in  
V%: [7.04]

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

ARMY '66: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones

ARMY QM: *Heel Breadth*—weight evenly distributed . . . maximum diameter

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel

KOREA: *Heel Breadth*—weight evenly distributed . . . maximum breadth

MORANT: *Heel Breadth*—45mm from the base of the measuring board

NAVY RECRUITS: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones

THAI: *Heel Breadth*—maximum breadth

USAF '50: *Heel Breadth*—maximum breadth

USMC: *Heel Breadth*—weight evenly distributed . . . below and behind the projections of the ankle bones

VIETNAM: *Heel Breadth*—maximum breadth

WAF RECRUITS: *Heel Width*—weight equally distributed . . . maximum width

#### Indeterminable:

None

## HEEL ON THE FLOOR WITH LEG EXTENDED [EFFECTIVE LEG LENGTH]

### Reference: INDIA

†The height of the seat [13½ in - 34.3 cm] is first adjusted by adding to or reducing the number of pieces of wooden blocks [½ in - 1.27 cm] on it until the thighs of the subject appear to be as nearly as possible horizontal. He sits erect in the corner with the back against one wing of the board and his right side touching the other wing.† with his back, shoulder and buttocks against one wing of the board, both legs

*Heel on the Floor With Leg Extended*  
[Effective Leg Length]—INDIA (Continued)

being fully extended over another stool kept at the same height before him and felt vertical. He is asked to sit as hard as possible and even when doing this his lumbar region of contact will usually be near the upper edge of the sacrum and not on the buttocks.† The stool is removed, stretched leg is kept on the floor and the foot at right angle with leg with the knee completely extended. This resulted in slight forward movement of the pelvis. This was done to get the effective leg length.

N: 691  
 $\bar{X}$ : 94.15 cm; 37.07 in  
SD: 4.41 cm; 1.74 in  
V%: [4.68]

**Similar Dimensions:**

None

**See Also:**

*Buttock Leg Length*

## HEEL WIDTH

**Reference: WAF RECRUITS**

The subject stands with her weight equally distributed on both feet. From behind, and with the bar of the sliding caliper at right angles to the longitudinal axis of the foot, measure the maximum width of the heel behind the projection of the ankle bones.

N: 847  
 $\bar{X}$ : 5.72 cm; 2.25 in  
SD: 0.57 cm; 0.23 in  
V%: 10.02

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Heel Breadth*  
ARMY QM: *Heel Breadth*  
KOREA: *Heel Breadth*  
NAVY RECRUITS: *Heel Breadth*  
THAI: *Heel Breadth*

**Heel Width—WAF RECRUITS (Continued)**

USAF '50: *Heel Breadth*

USMC: *Heel Breadth*

VIETNAM: *Heel Breadth*

Not Equivalent:

FOOT: *Heel Breadth*—Breadth . . . 45mm forward of the posterior heel

MORANT: *Heel Breadth*—45mm from the base of the measuring board

WAC: *Heel Breadth*—stands on left foot with right foot placed on a stool

Indeterminable:

None

**HEIGHT**

**Reference: AUSTRALIA**

Standing to the front, heels together, feet at 45 degrees angle, back straight, eye-ear in horizontal plane, measurement is taken from floor to the highest point in midline of the head.

N: 3453

$\bar{X}$ : 173.89 cm; 68.46 in

SD: 5.66 cm; 2.23 in

V%: [3.2]

**Similar Dimensions:**

Equivalent:

AAF: *Stature*

ARMY '66: *Stature*

ARMY ARMORED: *Stature*

BULGARIA: *Stature*

FAA: *Stature*

FRANCE '65: *Stature*

JAPAN: *Height*

KOREA: *Stature*

MARTIN: *Koerpergroesse* [#1]

NATO: *Stature*

NAVY RECRUITS: *Stature*

TUFTS: *Height*

US ADULTS: *Height*

USAF '50: *Stature*

*Height—AUSTRALIA (Continued)*

USMC: *Stature*  
USN: *Stature*  
WAF RECRUITS: *Stature*  
WASP: *Stature*  
WOMEN: *Stature*

**Not Equivalent:**

ARMY QM: *Stature*—head held normally  
HRDLICKA: *Stature*—heels, the sacral region, and the upper part of the back should touch the vertical  
MARTIN: *Koerpergroesse* [#2]—[buttocks and the back (but not with the head) touching a wall]  
MONTAGU: *Standing Height or Stature*—at attention, head erect, looking straight ahead  
NORWAY: *Stature*—measured against the wall . . . back against the wall . . . glance . . . ahead on a horizontal plane  
RAF-RCAF: *Height*—heels and shoulders against the measuring board, head held in a natural horizontal position  
THOUSAND AVIATORS: *Height Standing*—back flat against a support  
WAC: *Stature*—head is held normally

**Indeterminable:**

The following sources do not specify the exact position of the head.

ARMY AVIATORS: *Stature*  
BELGIUM: *Taille*  
COMAS: *Stature*  
FRANCE '55: *Taille*  
GENEVA: *Stature*  
THAI: *Stature*  
VIETNAM: *Stature*

**HEIGHT**

**Reference: JAPAN**

Subject stands erect looking directly forward (head oriented in the Frankfort plane). With the anthropometer arm firmly touching the scalp, measure the vertical distance from the floor to the top of the head.

N: 239  
 $\bar{X}$ : 166.89 cm; 65.70 in  
SD: 4.80 cm; 1.89 in  
V%: 2.90

*Height—JAPAN (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Stature*  
ARMY '66: *Stature*  
ARMY ARMORED: *Stature*  
AUSTRALIA: *Height*  
BULGARIA: *Stature*  
FAA: *Stature*  
FRANCE '65: *Stature*  
KOREA: *Stature*  
MARTIN: *Koerpergroesse* [#1]  
NATO: *Stature*  
NAVY RECRUITS: *Stature*  
TUFTS: *Height*  
US ADULTS: *Height*  
USAF '50: *Stature*  
USMC: *Stature*  
USN: *Stature*  
WAF RECRUITS: *Stature*  
WASP: *Stature*  
WOMEN: *Stature*

**Not Equivalent:**

ARMY QM: *Stature*—head held normally  
HRDLICKA: *Stature*—heels, the sacral region, and the upper part of the back should touch the vertical  
MARTIN: *Koerpergroesse* [#2]—[buttocks and the back (but not with the head) touching a wall]  
MONTAGU: *Standing Height or Stature*—at attention, head erect, looking straight ahead  
NORWAY: *Stature*—measured against the wall . . . back against the wall . . . glance . . . ahead on a horizontal plane  
RAF - RCAF: *Height*—heels and shoulders against the measuring board, head held in a natural horizontal position  
THOUSAND AVIATORS: *Height Standing*—back flat against a support  
WAC: *Stature*—head is held normally

**Indeterminable:**

The following sources do not specify the exact position of the head.

ARMY AVIATORS: *Stature*

*Height—JAPAN (Continued)*

BELGIUM: *Taille*  
COMAS: *Stature*  
FRANCE '55: *Taille*  
GENEVA: *Stature*  
THAI: *Stature*  
VIETNAM: *Stature*

**HEIGHT**

**Reference: RAF-RCAF**

Subject stands erect with heels and shoulders against the measuring board, head held in a natural horizontal position, and is measured with the measuring block lightly touching the head.

<i>RAF</i>	<i>RCAF</i>
N: 4357	314
$\bar{X}$ : 177.17 cm; 69.75 in	177.44 cm; 69.86 in
SD: 6.15 cm; 2.42 in	6.10 cm; 2.40 in
V%: [3.5]	[3.4]

**Similar Dimensions:**

**Equivalent:**

None

**Not Equivalent:**

AAF: *Stature*—[free standing]  
ARMY '66: *Stature*—[free standing]  
ARMY ARMORED: *Stature*—[free standing]  
ARMY AVIATORS: *Stature*—[free standing]  
ARMY QM: *Stature*—[free standing]  
AUSTRALIA: *Height*—[free standing]  
BULGARIA: *Stature*—[free standing]  
BELGIUM: *Taille*—[heels [only] touching the measuring device]  
COMAS: *Stature*—[free standing]  
FAA: *Stature*—[free standing]  
FRANCE '55: *Taille*—[heels [only] touching the measuring device]  
FRANCE '65: *Stature*—[free standing]  
GENEVA: *Stature*—[free standing]  
HRDLICKA: *Stature*—subject is placed against the measuring plane . . . heels, the sacral region, and the upper part of the back should touch the vertical

*Height—RAF-RCAF (Continued)*

JAPAN: *Height*—[free standing]  
KOREA: *Stature*—[free standing]  
MARTIN: *Koerpergroesse* [#1]—[standing freely]  
MARTIN: *Koerpergroesse* [#2]—[with the buttocks and the back (but not with the head) touching a wall]  
MONTAGU: *Standing Height or Stature*—[free standing]  
NATO: *Stature*—[free standing]  
NAVY RECRUITS: *Stature*—[free standing]  
NORWAY: *Stature*—measured against the wall . . . back against the wall in a rigid position  
THAI: *Stature*—[free standing]  
THOUSAND AVIATORS: *Height Standing*—back [only] against the measuring board  
TUFTS: *Height*—[free standing]  
US ADULTS: *Height*—back [only] against a vertical measuring scale  
USAF '50: *Stature*—[free standing]  
USMC: *Stature*—[free standing]  
USN: *Stature*—[free standing]  
VIETNAM: *Stature*—[free standing]  
WAC: *Stature*—[free standing]  
WAF RECRUITS: *Stature*—[free standing]  
WASP: *Stature*—[free standing]  
WOMEN: *Stature*—stepped . . . backward until some part of her body touched the wall

Indeterminable:

None

**HEIGHT**

**Reference: TUFTS**

Heels together, feet at 45° angle. Back straight, head in horizontal plane defined by line from tragon (about top of ear hole) to bottom of bony orbit. Measured from front or back, with anthropometer vertical, to vertex (highest point in mid-line of head).

No Data Available

**Similar Dimensions:**

Equivalent:

AAF: *Stature*

*Height—TUFTS (Continued)*

ARMY '66: *Stature*  
ARMY ARMORED: *Stature*  
AUSTRALIA: *Height*  
BULGARIA: *Stature*  
FAA: *Stature*  
FRANCE '65: *Stature*  
JAPAN: *Height*  
KOREA: *Stature*  
MARTIN: *Koerpergroesse* [#1]  
NATO: *Stature*  
NAVY RECRUITS: *Stature*  
US ADULTS: *Height*  
USAF '50: *Stature*  
USMC: *Stature*  
USN: *Stature*  
WAF RECRUITS: *Stature*  
WASP: *Stature*  
WOMEN: *Stature*

**Not Equivalent:**

ARMY QM: *Stature*—head held normally  
HRDLICKA: *Stature*—heels, the sacral region, and the upper part of the back should touch the vertical  
MARTIN: *Koerpergroesse* [#2]—[buttocks and the back (but not with the head) touching a wall]  
MONTAGU: *Standing Height or Stature*—at attention, head erect, looking straight ahead  
NORWAY: *Stature*—measured against the wall . . . back against the wall . . . glance . . . ahead on a horizontal plane  
RAF - RCAF: *Height*—heels and shoulders against the measuring board, head held in a natural horizontal position  
THOUSAND AVIATORS: *Height Standing*—back flat against a support  
WAC: *Stature*—head is held normally

**Indeterminable:**

The following sources do not specify the exact position of the head,

ARMY AVIATORS: *Stature*  
BELGIUM: *Taille*  
COMAS: *Stature*  
FRANCE '55: *Taille*  
GENEVA: *Stature*  
THAI: *Stature*  
VIETNAM: *Stature*

## HEIGHT

### Reference: US ADULTS

The examinee stood erect on a horizontal platform with his back against a vertical measuring scale 3 inches wide, looking straight ahead with his head in the Frankfort horizontal plane (that horizontal plane which includes the lower margin of the bony orbit—the bony socket containing the eye—and the most forward point in the supra-tragal notch—the notch just above the anterior cartilaginous projection of the external ear). A horizontal measuring bar (1½ inches wide) was then brought down snugly but not tightly on the top of the head . . . [Note: For examinees over 75 inches, height was measured free-standing with an anthropometer].

<i>Men</i>	<i>Women</i>
N: 3091	3581
$\bar{X}$ : 173.2 cm; 68.2 in	160.0 cm; 63.0 in
Est SD: [7.04 cm; 2.77 in]	[6.35 cm; 2.50 in]
Est V%: [2.5]	[2.5]

### Similar Dimensions:

#### Equivalent:

AAF: *Stature*  
ARMY '66: *Stature*  
ARMY ARMORED: *Stature*  
AUSTRALIA: *Height*  
BULGARIA: *Stature*  
FAA: *Stature*  
FRANCE '65: *Stature*  
JAPAN: *Height*  
KOREA: *Stature*  
MARTIN: *Koerpergroesse* [#1]  
NATO: *Stature*  
NAVY RECRUITS: *Stature*  
TUFTS: *Height*  
USAF '50: *Stature*  
USMC: *Stature*  
USN: *Stature*  
WAF RECRUITS: *Stature*  
WASP: *Stature*  
WOMEN: *Stature*

#### Not Equivalent:

ARMY QM: *Stature*—head held normally  
HRDLICKA: *Stature*—heels, the sacral region, and the upper part of the back should touch the vertical

*Height—US ADULTS (Continued)*

MARTIN: *Koerpergroesse* [#2]—[buttocks and the back (but not with the head) touching a wall]

MONTAGU: *Standing Height or Stature*—at attention, head erect, looking straight ahead

NORWAY: *Stature*—measured against the wall . . . back against the wall . . . glance . . . ahead on a horizontal plane

RAF - RCAF: *Height*—heels and shoulders against the measuring board, head held in a natural horizontal position

THOUSAND AVIATORS: *Height Standing*—back flat against a support

WAC: *Stature*—head is held normally

**Indeterminable:**

The following sources do not specify the exact position of the head

ARMY AVIATORS: *Stature*

BELGIUM: *Taille*

COMAS: *Stature*

FRANCE '55: *Taille*

GENEVA: *Stature*

THAI: *Stature*

VIETNAM: *Stature*

**HEIGHT OF FACE**

**Reference: NORWAY**

[M]easured from nasion to gnation. The face measurement is taken with the sliding calipers. Nasion is not formed by the deepest depression in the bridge of the nose. It lies above ossa nasali itself. Nasion is the middle point of the naso-frontal suture.

N: 5765

$\bar{X}$ : 12.53 cm; 4.93 in

SD: 0.76 cm; 0.30 in

V%: 6.08

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Face Length*

COMAS: *Morphological Facial Height*

FRANCE '65: *Hauteur de la face*

HRDLICKA: *Face Height (Lengt'v), Morphological*

MARTIN: *Morphologische Gesichtshoehe*

### *Height of Face—NORWAY (Continued)*

MONACO: *Diamètre naso-mentonnier*  
WAC: *Face Length*

#### Not Equivalent:

ARMY '66: *Face Length (Menton-Nasal Root Length)*—to the nasal root depression  
MONTAGU: *Morphological Facial Height*—The lowest median point on the lower border of the mandible  
NATO: *Menton-Nasal Root Depression Length*—nasal root depression  
NAVY RECRUITS: *Face Length (Menton-Nasal Root Length)*—to the nasal root depression  
USMC: *Face Length (Menton-Nasal Root Length)*—to the nasal root depression  
THAI: *Face Length*—depression of nose between eyes  
VIETNAM: *Face Length*—depression of nose between eyes

#### Indeterminable:

ARMY AVIATORS: *Face Length*—[landmark on chin not specified]  
FRANCE '55: *Distance racine du nez-Fossette mentonnière*—[landmarks not specified]

## HEIGHT OF GREAT TOE TIP

Reference: FCOT

Height from the ground to the dorsal surface of the tip of the great toe.

<i>White</i>	<i>Negro</i>
N: 5575	1200
$\bar{X}$ : 2.29 cm; 0.90 in	2.28 cm; 0.90 in
Est SD: [0.21 cm; 0.08 in]	[0.26 cm; 0.09 in]
Est V%: [9.2]	[11.2]

#### Similar Dimensions:

None

#### See Also:

*Toe Height*

## HEIGHT OF THE HEAD

Reference: COMAS

†With subject in standing position† Projective distance from the vertex to the

*Height of the Head—COMLAS (Continued)*

tragion †the notch directly above the tragus of the ear†. (Anthropometer).

No Data Available

**Similar Dimensions:**

**Equivalent:**

AAF: *Head Height*  
ARMY '66: *Head Height (Tragion-Vertex Height)*  
ARMY ARMORED: *Head Height*  
ARMY AVIATORS: *Head Height*  
KOREA: *Head Height (Tragion to Vertex)*  
MARTIN-SALLER: *Ohrhoehe des Kopfes*  
NATO: *Tragion-to-Vertex Height*  
NAVY RECRUITS: *Head Height (Tragion-Vertex Height)*  
USAF '50: *Head Height (Tragion to Vertex)*  
USMC: *Head Height (Tragion-Vertex Height)*  
USN: *Head Height*  
THAI: *Head Height*  
TUFTS: *Head Height*  
VIETNAM: *Head Height*

**Not Equivalent:**

ARMY QM: *Head Height*—between porion . . . and apex  
HRDLICKA: *Height of the Head*—from the middle of the line connecting the floor of the 2 auditory canals, to bregma  
MARTIN: *Ganze Kopshoehe*—[projected distance from the vertex to gnathion]  
MARTIN: *Ohrhoehe des Kopfes*—[from tragion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
WAC: *Head Height*—from apex . . . to the center of tragus

**Indeterminable:**

None

**See Also:**

*Tragion to Wall Distance*

## HEIGHT OF THE HEAD

### Reference: HRDLIČKA

The height, from the middle of the line connecting the floor of the 2 auditory canals, to bregma †the point of junction, on the skull, of the sagittal with the coronal suture†.

No Data Available

### Similar Dimensions:

#### Equivalent:

None

#### Not Equivalent:

AAF: *Head Height*—from trigion to mid-longitudinal line on top of head  
ARMY '66: *Head Height (Trigion-Vertex Height)*—from . . . (trigion) . . . to the top of the head (vertex)  
ARMY ARMORED: *Head Height*—from trigion to mid-longitudinal line on top of head  
ARMY AVIATORS: *Head Height*—from the notch (trigion) . . . to the top of the head  
ARMY QM: *Head Height*—between porion . . . and apex  
COMAS: *Height of the Head*—from vertex to the trigion  
KOREA: *Head Height (Trigion to Vertex)*—from . . . (trigion) . . . to the highest point of the head  
MARTIN: *Ganze Kopfhöhe*—[Projected distance from the vertex to gnathion]  
MARTIN-SALLER: *Ohrhöhe des Kopfes*—[from trigion to vertex]  
MARTIN: *Ohrhöhe des Kopfes*—[from trigion to bregma]  
MONTAGU: *Head Height*—[from roof of ear hole] to the level of the top of the head  
MONACO: *Hauteur de la tête*—[[from] vertex [to] the superior border of the auditory opening]  
NATO: *Trigion-to-Vertex Height*—vertical distance from trigion to vertex  
NAVY RECRUITS: *Head Height (Trigion-Vertex Height)*—from . . . (trigion) . . . to the top of the head (vertex)  
THAI: *Head Height*—from . . . (trigion) to top of head (vertex)  
TUFTS: *Head Height*—from trigion . . . to mid-longitudinal line on top of head  
USAF '50: *Head Height (Trigion to Vertex)*—vertical distance from . . . (trigion) . . . to the highest point of the head  
USMC: *Head Height (Trigion-Vertex Height)*—from . . . (trigion) . . . to the top of the head (vertex)  
USN: *Head Height*—vertical distance from trigion to vertex  
VIETNAM: *Head Height*—from . . . (trigion) to top of head (vertex)  
WAC: *Head Height*—from apex . . . to the center of the tragus

*Height of the Head—HRDLICKA (Continued)*

Indeterminable:

None

See Also:

*Tragion to Wall Distance*

**HEIGHT SITTING**

Reference: THOUSAND AVIATORS

Subject seated. †Maximum height to nearest tenth of an inch, measured under deep inspiration with head oriented in the Frankfort plane and back flat against a support.†

N: 675

$\bar{X}$ : 36.95 cm; 14.55 in

SD: 1.22 cm; 0.48 in

V%: [3.3]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Sitting Height*—[without back support]  
ARMY '66: *Sitting Height*—[without back support]  
ARMY ARMORED: *Sitting Height*—[without back support]  
ARMY QM: *Sitting Height*—[without back support]  
BULGARIA: *Sitting Height*—[without back support]  
COMAS: *Sitting Height*—[without back support]  
FAA: *Sitting Height*—[without back support]  
FRANCE '65: *Taille Assis*—[without back support]  
JAPAN: *Sitting Height*—[without back support]  
KOREA: *Sitting Height*—[without back support]  
MARTIN: *Stammlaenge*—[without back support]  
NATO: *Sitting Height*—[without back support]  
NAVY RECRUITS: *Sitting Height*—[without back support]  
THAI: *Sitting Height*—[without back support]  
TUFTS: *Sitting Height*—[without back support]  
US ADULTS: *Sitting Height Erect*—[without back support]  
US ADULTS: *Sitting Height Normal*—[without back support]

*Height Sitting—THOUSAND AVIATORS (Continued)*

USAF '50: *Sitting Height*—[without back support]  
USMC: *Sitting Height*—[without back support]  
USN: *Sitting Height*—[without back support]  
VIETNAM: *Sitting Height*—[without back support]  
WASP: *Sitting Height*—[without back support]  
WOMEN: *Sitting Height*—to the cervicale

Indeterminable:

ARMY AVIATORS: *Sitting Height*—[head and sitting position not specified]  
GENEVA: *Sitting Height*—[head position specified may or may not be identical]  
HRDLICKA: *Sitting Height*—[head position specified may or may not be identical]  
INDIA: *Sitting Height*—[head position not specified]  
MONTAGU: *Sitting Vertex Height*—[head position specified may or may not be identical]  
NORWAY: *Sitting Height*—[head position specified may or may not be identical]  
RAF-RCAF: *Sitting Height*—[head position not specified]

See Also:

*Top Head to Floor [Sitting]*

**HEIGHT STANDING**

Reference: THOUSAND AVIATORS

Maximum height to nearest tenth of an inch, measured under deep inspiration with head oriented in the Frankfort plane and back flat against a support.

N: 675  
 $\bar{X}$ : 178.33 cm; 70.21 in  
SD: 5.74 cm; 2.26 in  
V%: [3.2]

Similar Dimensions:

Equivalent:

None

Not Equivalent:

AAF: *Stature*—[free standing]

*Height Standing—THOUSAND AVIATORS—(Continued)*

ARMY '66: *Stature*—[free standing]  
ARMY ARMORED: *Stature*—[free standing]  
ARMY AVIATORS: *Stature*—[free standing]  
ARMY QM: *Stature*—[free standing]  
AUSTRALIA: *Height*—[free standing]  
BELGIUM: *Taille*—[free standing]  
BULGARIA: *Stature*—[free standing]  
COMAS: *Stature*—[free standing]  
FAA: *Stature*—[free standing]  
FRANCE '55: *Taille*—[free standing]  
GENEVA: *Stature*—[free standing]  
HRDLICKA: *Stature*—subject is placed against the measuring plane . . . heels, the sacral region, and the upper part of the back, should touch the vertical  
JAPAN: *Height*—[free standing]  
KOREA: *Stature*—[free standing]  
MARTIN: *Koerpergroesse* [#1]—[standing freely]  
MARTIN: *Koerpergroesse* [#2]—[with the buttocks and the back (but not with the head) touching a wall]  
MONTAGU: *Standing Height or Stature*—[free standing]  
NATO: *Stature*—[free standing]  
NAVY RECRUITS: *Stature*—[free standing]  
RAF-RCAF: *Height*—heels and shoulders [only] against the measuring board  
THAI: *Stature*—[free standing]  
TUFTS: *Height*—[free standing]  
US ADULTS: *Height*—back [only] against a vertical measuring scale  
USAF '50: *Stature*—[free standing]  
USMC: *Stature*—[free standing]  
USN: *Stature*—[free standing]  
VIETNAM: *Stature*—[free standing]  
WAC: *Stature*—[free standing]  
WAF RECRUITS: *Stature*—[free standing]  
WASP: *Stature*—[free standing]  
WOMEN: *Stature*—stepped . . . backward until some part of her body touched the wall

Indeterminable:

NORWAY: *Stature*—[exact position of head not specified]

**HIGHEST BUST LEVEL WIDTH**

Reference: WOMEN

Tape. †The subject stood erect with feet as close together as was comfortable and with the palms of the hands on the thighs† The zero end of the tape was placed on

**Highest Bust Level Width—WOMEN (Continued)**

the landmark above the right bust †a dot . . . [at] the top of the curved outline of the bust†, the tape passed across the chest parallel to the floor and read at the landmark above the left bust.

N: 10042  
 $\bar{X}$ : 18.69 cm; 7.36 in  
SD: 2.06 cm; 0.81 in  
V%: 11.0

**Similar Dimensions:**

None

**HIP BREADTH**

**Reference: ARMY QM**

†Subject sits on a table with adjustable foot rest. Subject sits erect with thighs just touching the table and knees at right angles† With anthropometer held horizontally in rear of subject and arms extending downward at a forty-five degree angle, measure the maximum transverse diameter of the hips below the iliac crests †the thickened and expanded upper border of the ilium, a bone in the pelvis†, with contact.

N: 24575  
 $\bar{X}$ : 35.44 cm; 13.95 in  
SD: 2.28 cm; 0.90 in  
V%: [6.43]

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAP: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*

*Hip Breadth—ARMY QM (Continued)*

USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

Not Equivalent:

HOOTON: *Hip Breadth*—[Subjects wore clothing.]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[Subjects wore clothing.]

Indeterminable:

None

See Also:

*Hip Breadth, Standing*

**HIP BREADTH**

Reference: FAA

The maximum transverse diameter of the hips subject standing.

N: 681  
 $\bar{X}$ : 34.66 cm; 13.64 in  
SD: 1.92 cm; 0.76 in  
V%: 5.55

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Breadth, Standing*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

Not Equivalent:

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

**Hip Breadth—FAA (Continued)**

Indeterminable:

None

See Also:

*Bi-Iliac*

*Bi-Trochanteric Breadth—Bone*

*Hip Breadth, Sitting*

**HIP BREADTH**

Reference: HOOTON

[In special chair]. The hip breadth was . . . measured by bringing the arms of the calibrated hip-breadth rod together until they touched the portions of the buttocks or upper thighs expanding to the maximum "spread". Care was taken not to include objects in pockets, and enough pressure was exerted to compress the clothing if it was loose.

<i>Males</i>	<i>Females</i>	<i>Total Series</i>
N: 1959	1908	3867
Median: 38.9 cm; 15.3 in	37.1 cm; 14.6 in	38.1 cm; 15.0 in
SD: NDA	NDA	NDA
V%: NDA	NDA	NDA

Similar Dimensions:

Equivalent:

TUFTS: *Hip Breadth*

US ADULTS: *Seat Breadth*

Not Equivalent:

AAF: *Bi-trochanteric*—[Subject nude]

ARMY '66: *Hip Breadth, Sitting*—[Subject nude]

ARMY QM: *Hip Breadth*—[Subject nude]

ARMY AVIATORS: *Seat Width, Sitting*—[Subject nude]

ARMY ARMORED: *Bi-trochanteric*—[Subject nude]

FAA: *Hip Breadth, Sitting*—[Subject nude]

INDIA: *Seat [Width]—Maximum Below Hips*—[Subject nude]

KOREA: *Hip Breadth, Sitting*—[Subject nude]

NATO: *Hip Breadth, Sitting*—[Subject nude]

NAVY RECRUITS: *Hip Breadth, Sitting*—[Subject nude]

RAF-RCAF: *Seat Breadth*—[Subject nude]

THAI: *Hip Breadth, Sitting*—[Subject nude]

TUFTS: *Bi-trochanteric*—[Subject nude]

*Hip Breadth—HOOTON (Continued)*

USAF '50: *Hip Breadth, Sitting*—[Subject nude]  
USMC: *Hip Breadth, Sitting*—[Subject nude]  
USN: *Hip Breadth, Sitting*—[Subject nude]  
VIETNAM: *Hip Breadth, Sitting*—[Subject nude]  
WAC: *Hip Breadth*—[Subject wore panties only]  
WASP: *Hip Breadth*—[Subject wore panties only]

Indeterminable:

None

See Also:

*Hip Breadth, Standing*

**HIP BREADTH**

Reference: KOREA

Subject stands erect. Using the anthropometer, measure horizontally across the widest portion of the hips.

N: 264  
 $\bar{X}$ : 31.14 cm; 12.26 in  
SD: 1.44 cm; 0.57 in  
V%: 4.62

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

Not Equivalent:

FRANCE '65: *Diamètre bicrête*—[at the level of the iliac crests]

*Hip Breadth—KOREA (Continued)*

Indeterminable:

None

See Also:

*Bi-Iliac*

*Bi-Trochanteric Breadth—Bone*

*Hip Breadth, Sitting*

**HIP BREADTH**

Reference: NATO

Subject stands erect. Using the anthropometer, measure horizontally across the widest portion of the hips.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 32.78 cm; 12.91 in	33.62 cm; 13.24 in	34.20 cm; 13.46 in
SD: 1.73 cm; 0.68 in	1.62 cm; 0.64 in	1.72 cm; 0.68 in
V%: 5.28	4.82	5.62

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

Not Equivalent:

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

Indeterminable:

None

*Hip Breadth—NATO (Continued)*

**See Also:**

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

**HIP BREADTH**

**Reference: TUFTS**

In the Seating Survey [ref. HOOTON], this measurement was called hip breadth and was taken on clothed, seated individuals. The measurement was made in a chair which was equipped with adjustable rods which could be moved into contact with the buttocks (upper thighs) on each side and the distance read directly from a bar across the back of the chair.

No Data Available

**Similar Dimensions:**

**Equivalent:**

HOOTON: *Hip Breadth*  
US ADULTS: *Seat Breadth*

**Not Equivalent:**

AAF: *Bi-trochanteric*—[Subject nude]  
ARMY '66: *Hip Breadth, Sitting*—[Subject nude]  
ARMY QM: *Hip Breadth*—[Subject nude]  
ARMY AVIATORS: *Seat Width, Sitting*—[Subject nude]  
ARMY ARMORED: *Bi-trochanteric*—[Subject nude]  
FAA: *Hip Breadth Sitting*—[Subject nude]  
INDIA: *Seat [Width]—Maximum Below Hips*—[Subject nude]  
KOREA: *Hip Breadth, Sitting*—[Subject nude]  
NATO: *Hip Breadth, Sitting*—[Subject nude]  
NAVY RECRUITS: *Hip Breadth, Sitting*—[Subject nude]  
RAF-RCAF: *Seat Breadth*—[Subject nude]  
THAI: *Hip Breadth, Sitting*—[Subject nude]  
TUFTS: *Bi-trochanteric*—[Subject nude]  
USAF '50: *Hip Breadth, Sitting*—[Subject nude]  
USMC: *Hip Breadth, Sitting*—[Subject nude]  
USN: *Hip Breadth, Sitting*—[Subject nude]  
VIETNAM: *Hip Breadth, Sitting*—[Subject nude]  
WAC: *Hip Breadth*—[Subject wore panties only]  
WASP: *Hip Breadth*—[Subject wore panties only]

**Indeterminable:**

None

**See Also:**

*Hip Breadth, Standing*

## HIP BREADTH

Reference: USAF '50

Subject stands erect. Using the anthropometer, measure horizontally across the widest portion of the hips.

N: 4062  
 $\bar{X}$ : 33.45 cm; 13.17 in  
SD: 1.85 cm; 0.73 in  
V%: 5.53

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

Not Equivalent:

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

Indeterminable:

None

See Also:

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

## HIP BREADTH

Reference: USN

Subject stands erect. Using the anthropometer, measure horizontally across the widest portion of the hips.

*Hip Breadth—USN (Continued)*

N: 1549  
 $\bar{X}$ : 34.99 cm; 13.78 in  
SD: 1.78 cm; 0.70 in  
V%: 5.10

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

**Not Equivalent:**

FRANCE '65: *Diamètre bicrête*—[at the level of the iliac crests]

**Indeterminable:**

None

**See Also:**

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

**HIP BREADTH**

**Reference: WAC**

†Subject sat erect with eyes on an imaginary horizon† with both upper arms parallel to the body and both forearms extending forward at right angles to the upper arms. Anthropometer held parallel to the floor to the rear of the subject. The needles point downward at a 45-degree angle. Measurement taken as the maximum breadth below the hips.

No Data Available

*Hip Breadth—WAC (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY OM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WASP: *Hip Breadth*

**Not Equivalent:**

HOOTON: *Hip Breadth—[subjects wore clothing]*  
TUFTS: *Hip Breadth—[taken on clothed, seated individuals]*  
US ADULTS: *Seat Breadth—[subjects wore clothing]*

**Indeterminable:**

None

**See Also:**

*Hip Breadth, Standing*

**HIP BREADTH**

**Reference: WAF RECRUITS**

Subject stands. Measure across the widest portion of the hips with the anthropometer held horizontally.

*Hip Breadth—WAF RECRUITS (Continued)*

N: 850  
 $\bar{X}$ : 35.05 cm; 13.80 in  
SD: 2.41 cm; 0.95 in  
V%: 6.88

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*

**Not Equivalent:**

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

**Indeterminable:**

None

**See Also:**

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

**HIP BREADTH, SITTING**

**Reference:** ARMY '66

Subject sits erect, with knees together. The maximum breadth across the hips is measured. An anthropometer is used, and is held horizontally.

N: 6682  
 $\bar{X}$ : 34.16 cm; 13.45 in  
SD: 2.38 cm; 0.94 in  
V%: 6.97

*Hip Breadth, Sitting—ARMY '66 (Continued)*

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-trochanteric*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

**Not Equivalent:**

HOOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subject wore clothing]

**Indeterminable:**

None

**See Also:**

*Hip Breadth, Standing*

**HIP BREADTH, SITTING**

**Reference: FAA**

The maximum transverse diameter of the hips with the subject sitting.

N: 681  
 $\bar{X}$ : 35.96 cm; 14.16 in

*Hip Breadth, Sitting—FAA (Continued)*

SD: 2.34 cm; 0.92 in  
V%: 6.52

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

**Not Equivalent:**

HOOTON: *Hip Breadth—[subjects wore clothing]*  
TUFTS: *Hip Breadth—taken on clothed, seated individuals*  
US ADULTS: *Seat Breadth—[subjects wore clothing]*

**Indeterminable:**

None

**See Also:**

*Hip Breadth, Standing*

**HIP BREADTH, SITTING**

**Reference: KOREA**

Subject sits erect. Using the anthropometer, measure horizontally across the widest portion of the hips.

*Hip Breadth, Sitting—KOREA (Continued)*

N: 264  
 $\bar{X}$ : 32.89 cm; 12.95 in  
SD: 1.75 cm; 0.68 in  
V%: 5.31

**Similar Dimensions:**

**Equivalent:**

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

**Not Equivalent:**

HGOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subjects wore clothing]

**Indeterminable:**

None

**See Also:**

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

Reference: NATO

Subject sits erect. Using the anthropometer, measure horizontally across the widest protrusions of the hips.

<i>Turkey</i>	<i>Greece</i>	<i>Italy</i>
N: 915	1084	1358
$\bar{X}$ : 34.03 cm; 13.40 in	34.75 cm; 13.68 in	35.68 cm; 14.05 in
SD: 1.86 cm; 0.73 in	1.73 cm; 0.68 in	1.84 cm; 0.72 in
V%: 5.45	4.96	5.14

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
 ARMY '66: *Hip Breadth, Sitting*  
 ARMY ARMORED: *Bi-trochanteric*  
 ARMY AVIATORS: *Seat Width, Sitting*  
 ARMY QM: *Hip Breadth*  
 FAA: *Hip Breadth, Sitting*  
 INDIA: *Seat [Width]—Maximum below Hips*  
 KOREA: *Hip Breadth, Sitting*  
 NAVY RECRUITS: *Hip Breadth, Sitting*  
 RAF-RCAF: *Seat Breadth*  
 THAI: *Hip Breadth, Sitting*  
 TUFTS: *Bi-trochanteric*  
 USAF '50: *Hip Breadth, Sitting*  
 USMC: *Hip Breadth, Sitting*  
 USN: *Hip Breadth, Sitting*  
 VIETNAM: *Hip Breadth, Sitting*  
 WAC: *Hip Breadth*  
 WASP: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth*—[subjects wore clothing]  
 TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
 US ADULTS: *Seat Breadth*—[subjects wore clothing]

#### Indeterminable:

None

#### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

### Reference: NAVY RECRUITS

Subject sits erect, with knees together. The maximum breadth across the hips is measured. An anthropometer is used, and is held horizontally.

N: 4094  
 $\bar{X}$ : 33.85 cm; 13.33 in  
SD: 2.36 cm; 0.93 in  
V%: 6.97

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subjects wore clothing]

### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

Reference: THAI

†Subject sitting erect on table or bench† Measured as maximum breadth across hips.

N: 2950  
 $\bar{X}$ : 31.8 cm; 12.5 in  
SD: 2.2 cm; 0.9 in  
V%: 6.9

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subjects wore clothing]

#### Indeterminable:

None

#### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

Reference: USAF '50

Subject sits erect. Using the anthropometer, measure horizontally across the widest portion of the hips.

N: 4058  
 $\bar{X}$ : 35.49 cm; 13.97 in  
SD: 2.21 cm; 0.87 in  
V%: 6.23

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subjects wore clothing]

#### Indeterminable:

None

#### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

Reference: USMC

Subject sits erect, with knees together. The maximum breadth across the hips is measured. An anthropometer is used, and is held horizontally.

N: 2008  
 $\bar{X}$ : 34.16 cm; 13.45 in  
SD: 2.00 cm; 0.79 in  
V%: 5.90

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KCREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subjects wore clothing]

#### Indeterminable:

None

#### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

### Reference: USN

Subject sits erect. Using the anthropometer, measure horizontally across the widest protrusions of the hips.

N: 1549  
 $\bar{X}$ : 36.80 cm; 14.49 in  
SD: 2.17 cm; 0.85 in  
V%: 5.90

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
VIETNAM: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASF: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth—[subjects wore clothing]*  
TUFTS: *Hip Breadth—taken on clothed, seated individuals*  
US ADULTS: *Seat Breadth—[subjects wore clothing]*

#### Indeterminable:

None

#### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, SITTING

Reference: VIETNAM

†Subject sitting erect on table or bench† Measured as maximum breadth across hips.

N: 2126  
 $\bar{X}$ : 30.3 cm; 11.9 in  
SD: 2.0 cm; 0.8 in  
V%: 6.6

### Similar Dimensions:

#### Equivalent:

AAF: *Bi-trochanteric*  
ARMY '66: *Hip Breadth, Sitting*  
ARMY ARMORED: *Bi-trochanteric*  
ARMY AVIATORS: *Seat Width, Sitting*  
ARMY QM: *Hip Breadth*  
FAA: *Hip Breadth, Sitting*  
INDIA: *Seat [Width]—Maximum below Hips*  
KOREA: *Hip Breadth, Sitting*  
NATO: *Hip Breadth, Sitting*  
NAVY RECRUITS: *Hip Breadth, Sitting*  
RAF-RCAF: *Seat Breadth*  
THAI: *Hip Breadth, Sitting*  
TUFTS: *Bi-trochanteric*  
USAF '50: *Hip Breadth, Sitting*  
USMC: *Hip Breadth, Sitting*  
USN: *Hip Breadth, Sitting*  
WAC: *Hip Breadth*  
WASP: *Hip Breadth*

#### Not Equivalent:

HOOTON: *Hip Breadth*—[subjects wore clothing]  
TUFTS: *Hip Breadth*—taken on clothed, seated individuals  
US ADULTS: *Seat Breadth*—[subjects wore clothing]

#### Indeterminable:

None

### See Also:

*Hip Breadth, Standing*

## HIP BREADTH, STANDING

Reference: ARMY '66

Subject stands erect, with heels together. The maximum breadth across the hips is measured. An anthropometer is used, and is held horizontally.

N: 6682  
X: 33.19 cm; 13.07 in  
SD: 2.90 cm; 0.79 in  
V%: 6.05

### Similar Dimensions:

#### Equivalent:

FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

#### Not Equivalent:

FRANCE '65: *Diamètre bicrête*—[at the level of the iliac crests]

#### Indeterminable:

None

#### See Also:

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

## HIP BREADTH, STANDING

Reference: NAVY RECRUITS

Subject stands erect, with heels together. The maximum breadth across the hips is measured. An anthropometer is used, and is held horizontally.

*Hip Breadth, Standing—NAVY RECRUITS (Continued)*

N: 4094  
 $\bar{X}$ : 33.07 cm; 13.02 in  
SD: 2.03 cm; 0.80 in  
V%: 6.17

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

**Not Equivalent:**

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

**Indeterminable:**

None

**See Also:**

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

**HIP BREADTH, STANDING**

**Reference: THAI**

†Subject standing erect† Measured as maximum breadth across the hips.

N: 2950  
 $\bar{X}$ : 30.0 cm; 11.8 in  
SD: 1.5 cm; 0.6 in  
V%: 5.0

*Hip Breadth, Standing—THAI (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

**Not Equivalent:**

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

**Indeterminable:**

None

**See Also:**

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

**HIP BREADTH, STANDING**

**Reference: USMC**

Subject stands erect, with heels together. The maximum breadth across the hips is measured. An anthropometer is used, and is held horizontally.

N: 2008  
X: 33.19 cm; 13.07 in  
SD: 1.75 cm; 0.69 in  
V%: 5.26

**Similar Dimensions:**

**Equivalent:**

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*

*Hip Breadth, Standing—USMC (continued)*

NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USN: *Hip Breadth*  
VIETNAM: *Hip Breadth, Standing*  
WAF RECRUITS: *Hip Breadth*

Not Equivalent:

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

Indeterminable:

None

See Also:

*Bi-Iliac*  
*Bi-Trochanteric Breadth—Bone*  
*Hip Breadth, Sitting*

**HIP BREADTH, STANDING**

Reference: VIETNAM

†Subject standing erect† Measured as maximum breadth across the hips.

N: 2128  
 $\bar{X}$ : 29.1 cm; 11.5 in  
SD: 1.4 cm; 0.6 in  
V%: 4.8

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Breadth, Standing*  
FAA: *Hip Breadth*  
KOREA: *Hip Breadth*  
NATO: *Hip Breadth*  
NAVY RECRUITS: *Hip Breadth, Standing*  
THAI: *Hip Breadth, Standing*  
USAF '50: *Hip Breadth*  
USMC: *Hip Breadth, Standing*

*Hip Breadth, Standing—VIETNAM (Continued)*

USN: *Hip Breadth*

WAF RECRUITS: *Hip Breadth*

Not Equivalent:

FRANCE '65: *Diamètre bicrète*—[at the level of the iliac crests]

Indeterminable:

None

See Also:

*Bi-Iliac*

*Bi-Trochanteric Breadth—Bone*

*Hip Breadth, Sitting*

**HIP CIRCUMFERENCE**

Reference: ARMY '66

Subject stands erect, with heels together. The maximum horizontal circumference of the hips is measured at the level of the greatest protrusion of the buttock muscles. A steel tape is used.

N: 6682

$\bar{X}$ : 94.20 cm; 37.09 in

SD: 6.24 cm; 2.46 in

V%: 6.64

Similar Dimensions:

Equivalent:

ARMY AVIATORS: *Seat Circumference*

FAA: *Buttocks Circumference*

JAPAN: *Buttock Circumference*

KOREA: *Buttock Circumference*

NATO: *Buttock Circumference*

NAVY RECRUITS: *Hip Circumference*

THAI: *Hip Circumference*

USAF '50: *Buttock Circumference*

USMC: *Hip Circumference*

USN: *Buttock Circumference*

*Hip Circumference—ARMY '66 (Continued)*

VIETNAM: *Hip Circumference*

WAF RECRUITS: *Buttocks Circumference*

Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips

FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]

MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

WAC: *Hip Circumference*—over the two trochanterions

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**HIP CIRCUMFERENCE**

Reference: ARMY QM

†Subject stands erect, with heels together and eyes straight ahead† The horizontal circumference taken over the most lateral part of the greater trochanters of the femurs, trochanterion.

N: 24500

$\bar{X}$ : 93.14 cm; 36.67 in

SD: 5.70 cm; 2.24 in

V%: [6.12]

*Hip Circumference—ARMY QM (Continued)*

**Similar Dimensions:**

**Equivalent:**

WAC: *Hip Circumference*  
WOMEN: *Hip Girth*

**Not Equivalent:**

ARMY '66: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
ARMY AVIATORS: *Seat Circumference*—at the level of the maximum protrusion of the buttocks  
AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips  
FAA: *Buttocks Circumference*—at the level of the greatest protrusion of the buttocks  
FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]  
JAPAN: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
KOREA: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
MONTAGU: *Maximum Gluteo-Pubic Circumference — Hip Girth*—placed over the most prominent part of the buttocks, is brought around the level of the greater trochanters  
NATO: *Buttock Circumference*—maximum posterior protrusion of the buttock  
NAVY RECRUITS: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
THAI: *Hip Circumference*—at level of greatest buttock protrusion  
USAF '50: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
USMC: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
USN: *Buttock Circumference*—maximum posterior protrusion of the buttocks  
VIETNAM: *Hip Circumference*—at the level of greatest buttock protrusion  
WAC: *Halfway to Hip Circumference*—midway between the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAF RECRUITS: *Buttocks Circumference*—the area of the most posterior projection of the buttocks  
WASP: *Hip Circumference*—Maximum circumference around buttocks

**Indeterminable:**

None

**See Also:**

*Buttock Circumference, Sitting*

## HIP CIRCUMFERENCE

### Reference: NAVY RECRUITS

Subject stands erect, with heels together. The maximum horizontal circumference of the hips is measured at the level of the greatest protrusion of the buttock muscles. A steel tape is used.

N: 4095  
 $\bar{X}$ : 93.62 cm; 36.86 in  
SD: 6.37 cm; 2.51 in  
V%: 6.82

### Similar Dimensions:

#### Equivalent:

ARMY '66: *Hip Circumference*  
ARMY AVIATORS: *Seat Circumference*  
FAA: *Buttocks Circumference*  
JAPAN: *Buttock Circumference*  
KOREA: *Buttock Circumference*  
NATO: *Buttock Circumference*  
THAI: *Hip Circumference*  
USAF '50: *Buttock Circumference*  
USMC: *Hip Circumference*  
USN: *Buttock Circumference*  
VIETNAM: *Hip Circumference*  
WAF RECRUITS: *Buttocks Circumference*

#### Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions  
WASP: *Hip Circumference*—Maximum . . . around buttocks  
WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

*Hip Circumference—NAVY RECRUITS (Continued)*

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**HIP CIRCUMFERENCE**

Reference: THAI

Measured as maximum circumference of hips at level of greatest buttock protrusion.

N: 2950

$\bar{X}$ : 86.3 cm; 34.0 in

SD: 4.1 cm; 1.6 in

V%: 4.7

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Circumference*

ARMY AVIATORS: *Seat Circumference*

FAA: *Buttocks Circumference*

JAPAN: *Buttock Circumference*

KOREA: *Buttock Circumference*

NATO: *Buttock Circumference*

NAVY RECRUITS: *Hip Circumference*

USAF '50: *Buttock Circumference*

USMC: *Hip Circumference*

USN: *Buttock Circumference*

VIETNAM: *Hip Circumference*

WAF RECRUITS: *Buttocks Circumference*

Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips

FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]

MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

*Hip Circumference—THAI (Continued)*

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

WAC: *Hip Circumference*—over the two trochanterions

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**HIP CIRCUMFERENCE**

Reference: USMC

Subject stands erect, with heels together. The maximum horizontal circumference of the hips is measured at the level of the greatest protrusion of the buttock muscles. A steel tape is used.

N: 2003

$\bar{X}$ : 94.84 cm; 37.34 in

SD: 5.23 cm; 2.06 in

V%: 5.52

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Circumference*

ARMY AVIATORS: *Seat Circumference*

FAA: *Buttocks Circumference*

JAPAN: *Buttock Circumference*

KOREA: *Buttock Circumference*

NATO: *Buttock Circumference*

NAVY RECRUITS: *Hip Circumference*

THAI: *Hip Circumference*

USAF '50: *Buttock Circumference*

USN: *Buttock Circumference*

VIETNAM: *Hip Circumference*

WAF RECRUITS: *Buttocks Circumference*

*Hip Circumference—USMC (Continued)*

Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips

FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]

MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

WAC: *Hip Circumference*—over the two trochanterions

WASP: *Hip Circumference*—Maximum . . . around buttocks

WOMEN: *Hip Girth*—at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**HIP CIRCUMFERENCE**

Reference: VIETNAM

Measured as maximum circumference of hips at level of greatest buttock protrusion.

N: 2114

$\bar{X}$ : 82.9 cm; 32.6 in

SD: 4.0 cm; 1.6 in

V%: 4.8

Similar Dimensions:

Equivalent:

ARMY '66: *Hip Circumference*

ARMY AVIATORS: *Seat Circumference*

FAA: *Buttocks Circumference*

JAPAN: *Buttock Circumference*

KOREA: *Buttock Circumference*

*Hip Circumference—VIETNAM (Continued)*

NATO: *Buttock Circumference*  
NAVY RECRUITS: *Hip Circumference*  
THAI: *Hip Circumference*  
USAF '50: *Buttock Circumference*  
USMC: *Hip Circumference*  
USN: *Buttock Circumference*  
WAF RECRUITS: *Buttocks Circumference*

Not Equivalent:

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters  
AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips  
FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]  
MONTAGU: *Maximum Gluteo-Fuic Circumference—Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions  
WAC: *Hip Circumference*—over the two trochanterions  
WASP: *Hip Circumference*—maximum . . . around buttocks  
WOMEN: *Hip Girth*— at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**HIP CIRCUMFERENCE**

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon.† †The arms were raised while the tape was being adjusted and then lowered for the measurement† Assistant measurer adjusted tape in front and measurer stood behind. Measurement taken as the circumference when the tape is placed horizontally and passed over the two trochanterions.†The most lateral point on the greater trochanter of the femur†.

N: 8544  
X: 95.24 cm; 37.50 in  
SD: 6.76 cm; 2.66 in  
V%: [7.10]

*Hip Circumference—WAC (Continued)*

**Similar Dimensions:**

**Equivalent:**

ARMY QM: *Hip Circumference*  
WOMEN: *Hip Girth*

**Not Equivalent:**

ARMY '66: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
ARMY AVIATORS: *Seat Circumference*—at the level of the maximum protrusion of the buttocks  
AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips  
FAA: *Buttocks Circumference*—at the level of greatest protrusion of the buttocks  
FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]  
JAPAN: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
KOREA: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—placed over the most prominent part of the buttocks, is brought around the level of the greater trochanters  
NATO: *Buttock Circumference*—maximum posterior protrusion of the buttock  
NAVY RECRUITS: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
THAI: *Hip Circumference*—at level of greatest buttock protrusion  
USAF '50: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttock  
USMC: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
USN: *Buttock Circumference*—maximum posterior protrusion of the buttocks  
VIETNAM: *Hip Circumference*—at the level of greatest buttock protrusion  
WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanters  
WAF RECRUITS: *Buttocks Circumference*—the area of the most posterior projection of the buttocks  
WASP: *Hip Circumference*—Maximum circumference around buttocks

**Indeterminable:**

None

**See Also:**

*Buttock Circumference, Sitting*

## HIP CIRCUMFERENCE

Reference: WASP

Maximum circumference around buttocks. [Subject standing]

<i>Women Pilots</i>	<i>Flying Nurses</i>
N: 447	152
$\bar{X}$ : 96.82 cm; 38.12 in	94.34 cm; 37.14 in
SD: NDA	NDA
V%: NDA	NDA

Similar Dimensions:

Equivalent:

FRANCE '65: *Périmètre des fesses*  
 AUSTRALIA: *Seat [Circumference]*

Not Equivalent:

ARMY '66: *Hip Circumference*—at the level of the greatest protrusion of the buttock

ARMY AVIATORS: *Seat Circumference*—at the level of the maximum protrusion of the buttocks

ARMY QM: *Hip Circumference*—over the most lateral part of the greater trochanters

FAA: *Buttocks Circumference*—at the level of greatest protrusion of the buttocks

JAPAN: *Buttock Circumference*—the level of the greatest rearward protrusion of the buttocks

KOREA: *Buttock Circumference*—the level of the greatest rearward protrusion of the buttocks

MONTAGU: *Maximum Gluteo-Pubic Circumference*—*Hip Girth*—over the most prominent portion of the buttocks . . . around . . . greater trochanters . . . level determined by the buttocks and trochanters

NATO: *Buttock Circumference*—at †maximum posterior protrusion of the buttock

NAVY RECRUITS: *Hip Circumference*—at the level of the greatest protrusion of the buttock

THAI: *Hip Circumference*—at level of greatest buttock protrusion

USAF '50: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks

USMC: *Hip Circumference*—at the level of the greatest protrusion of the buttock

USN: *Buttock Circumference*—at the level of †maximum posterior protrusion of the buttocks

VIETNAM: *Hip Circumference*—at level of greatest buttock protrusion

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

*Hip Circumference—WASP (Continued)*

WAC: *Hip Circumference*—over the two trochanterions

WAF RECRUITS: *Buttocks Circumference*—over the area of the most posterior projection of the buttocks

WOMEN: *Hip Girth*— at the most prominent bony point in the region of the trochanter

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

**HIP CIRCUMFERENCE (SITTING)**

Reference: WAF RECRUITS

Subject sits. Place the tape behind the subject and just under the buttocks at the point where they contact the seating surface. The tape is then brought up at a forty-five degree angle and across the lap in the furrow between the torso and the legs.

N: 848

$\bar{X}$ : ' 99.62 cm; 39.22 in

SD: 5.66 cm; 2.23 in

V%: 5.68

Similar Dimensions:

Equivalent:

JAPAN: *Buttock Circumference, Sitting*

KOREA: *Buttock Circumference, Sitting*

NATO: *Buttock Circumference, Sitting*

USAF '50: *Buttock Circumference, Sitting*

USN: *Buttock Circumference, Sitting*

Not Equivalent:

None

Indeterminable:

None

See Also:

*Hip Circumference*

## HIP GIRTH

### Reference: WOMEN

Tape. . . . The subject's position was her normal, erect posture with feet together and hands on her hips. . . . The tape was placed around the body so that the upper border rested on the landmarks *at the most prominent bony point in the region of the trochanter major. The level was determined independently for the right and left sides and the average of the two taken as the hip level*† and the zero point was at the hip level on the right side. The plane of the girth was horizontal and the measurement was taken without constriction.

N: 10042  
 $\bar{X}$ : 98.60 cm; 38.82 in  
SD: 8.48 cm; 3.34 in  
V%: 3.6

### Similar Dimensions:

#### Equivalent:

ARMY QM: *Hip Circumference*  
WAC: *Hip Circumference*

#### Not Equivalent:

ARMY '66: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
ARMY AVIATORS: *Seat Circumference*—at the level of the maximum protrusion of the buttocks  
AUSTRALIA: *Seat [Circumference]*—around the largest part of the hips  
FAA: *Buttocks Circumference*—at the level of greatest protrusion of the buttocks  
FRANCE '65: *Périmètre des fesses*—[maximum circumference of the hips]  
JAPAN: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
KOREA: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
MONTAGU: *Maximum Gluteo-Pubic Circumference—Hip Girth*—placed over the most prominent part of the buttocks, is brought around the level of the greater trochanters  
NATO: *Buttock Circumference*—maximum posterior protrusion of the buttock  
NAVY RECRUITS: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
THAI: *Hip Circumference*—at level of greatest buttock protrusion  
USAF '50: *Buttock Circumference*—at the level of the greatest rearward protrusion of the buttocks  
USMC: *Hip Circumference*—at the level of the greatest protrusion of the buttock  
USN: *Buttock Circumference*—maximum posterior protrusion of the buttocks  
VIETNAM: *Hip Circumference*—at the level of greatest buttock protrusion

### *Hip Girth—WOMEN (Continued)*

WAC: *Halfway to Hip Circumference*—midway between †the minimum circumference . . . between the superior borders of the hips and the inferior borders of the ribs† and †the two trochanterions

WAF RECRUITS: *Buttocks Circumference*—the area of the most posterior projection of the buttocks

WASP: *Hip Circumference*—maximum circumference around buttocks

Indeterminable:

None

See Also:

*Buttock Circumference, Sitting*

## HIP HEIGHT

Reference: WAC

†Subject stood erect without stretching, eyes on an imaginary horizon. Measurement taken vertically to left trochanterion †*The most lateral point on the greater trochanter of the femur*†.

N: 8512

$\bar{X}$ : 81.79 cm; 32.20 in

SD: 4.42 cm; 1.74 in

V%: [5.40]

Similar Dimensions:

Equivalent:

WOMEN: *Hip Height*

Not Equivalent:

GENEVA: *Great Trochanter [Height]*—upper border of the great trochanter

MARTIN: *Hoehe des rechten grossen Rollhuegels ueber dem Boden*—[upper rim of the right, greater trochanter]

MONTAGU: *Right Trochanterion Height*—From the superior surface of the greater trochanter

NATO: *Trochanteric Height*—the top edge of the lateral protrusion of the femoral trochanter

*Hip Height—WAC (Continued)*

Indeterminable:

None

See Also:

*Right Iliospinale Height*

**HIP HEIGHT**

Reference: **WOMEN**

Anthropometer. . . . The subject stood erect, with her hands on her hips and her weight evenly distributed on her feet. . . . The anthropometer was held in the right hand, and the movable arm raised with the left until the brass point rested on the landmark. †The level of the hip was placed at the most prominent bony point in the region of the trochanter major†.

N: 10042

$\bar{X}$ : 80.29 cm; 31.61 in

SD: 4.52 cm; 1.78 in

V%: 5.6

Similar Dimensions:

Equivalent:

WAC: *Hip Height*

Not Equivalent:

GENEVA: *Great Trochanter [Height]*—upper border of the great trochanter  
MARTIN: *Hoehe des rechten grossen Rollhuegels ueber dem Boden*—[upper rim of the right, greater trochanter]

MONTAGU: *Right Trochanterion Height*—From the superior surface of the greater trochanter

NATO: *Trochanteric Height*—the top edge of the lateral protrusion of the femoral trochanter

Indeterminable:

None

See Also:

*Right Iliospinale Height*

## HOEHE DER NASE [NOSE HEIGHT]

Reference: MARTIN

Geradlinige Entfernung des Nasion *†*derjenige Punkt der Nasenwurzel, der von der Mediansagittal-Ebene geschnitten wird*†* vom Subnasale *†*derjenige Punkt, der an dem einspringenden Winkel des Unterrandes der Nasenscheidewand und der Integumentaloberlippe gelegen ist*†*. Gleit-oder Stangenzirkel.

[Straight line distance from nasion *†*that point of the nasal root which intersects with the midsagittal plane*†* to subnasale *†*that point which is situated on the junction of the lower edge of the nasal septum and the upper lip*†*. Sliding or Beam Caliper.]

No Data Available

Similar Dimensions:

Equivalent:

ARMY QM: *Nose Length*  
COMAS: *Nasal Height*  
FRANCE '65: *Hauteur du nez*  
HRDLICKA: *Nose Height*  
JAPAN: *Nose Length*  
KOREA: *Nose Length*  
MONACO: *Hauteur du nez*  
NATO: *Subnasale-Nasal Root Depression Length*  
USAF '50: *Nose Length*  
USN: *Nose Length*  
WAC: *Nose Length*

Not Equivalent:

MONTAGU: *Nasal Length*—nasion *†*The point at which a horizontal tangential to the highest points on the superior palpebral sulci intersects the midsagittal plane

Indeterminable:

None

## HOEHE DER RECHTEN BRUSTWARZE UEBER DEM BODEN [RIGHT NIPPLE HEIGHT]

Reference: MARTIN

Vertikale Entfernung des rechten Thelion *†*Mittelpunkt der Brustwarze*†* vom Boden.

*Höhe der rechten Brustwarze ueber dem Boden [Right Nipple Height]—MARTIN (Continued)*

Anthropometer. . . . Es ist aber nur bei Kindern, Maennern und solchen Frauen abzunehmen, bei denen noch kein Decensus mammarie eingetreten ist. †soll das Individuum . . . in straffer Haltung . . . stehen†.

[Vertical distance to the right thelion †centerpoint of the nipple† from the floor. Anthropometer. . . . It is to be only taken on children, men and those women without pendulous breasts. †the individual shall . . . stand . . . in erect posture†.]

No Data Available

**Similar Dimensions:**

**Equivalent:**

FAA: *Nipple Height*  
GENEVA: *Mammilla or Nipple [Height]*  
JAPAN: *Nipple Height*  
KOREA: *Nipple Height*  
NATO: *Nipple Height*  
USAF '50: *Nipple Height*  
USN: *Nipple (Chest) Height*

**Not Equivalent:**

None

**Indeterminable:**

None

**See Also:**

*Bust Height*

**HOEHE DER RECHTEN ELLENBOGENGELENKFUGE  
UEBER DEM BODEN [RIGHT ELBOW HEIGHT]**

**Reference: MARTIN**

Vertikale Entfernung des rechten Radiale †derjenige Punkt am Oberrand des Capitulum radii, der bei haengendem Arm (Palma nach innen gekehrt) am hoechsten gelegen ist† vom Boden. Anthropometer. †soll das Individuum . . . in straffer Haltung . . . stehen†. Zur Abnahme dieses . . . Masses muss der rechte Arm in der . . . gestreckten, absolut ruhigen Haltung verbleiben. †lasse man den Arm in moeglichster Streckung an den Koerper anlegen, so dass er parallel zum Messinstrument gerichtet ist†.

[Vertical distance of the right radiale †that point on the upper rim of the radius

*Hoehe der rechten Ellenbogengelenkfuge ueber dem Boden*  
[Right Elbow Height]—MARTIN (Continued)

*which is highest with the arm hanging (palm facing inward)† from the floor. Anthropometer. †the individual shall . . . stand in erect posture† To measure this dimension, the right arm must remain in the . . . straightened and calm position †have the subject touch his straightened arm to his body so it is parallel to the measuring instrument†.]*

No Data Available

Similar Dimensions:

Equivalent:

FAA: *Elbow Height*  
GENEVA: *Elbow [Height]*  
JAPAN: *Elbow Height*  
KOREA: *Elbow Height*  
MONTAGU: *Right Radiale Height*  
NATO: *Radiale Height (Elbow Height)*  
USAF '50: *Elbow Height (Radiale Height)*

Not Equivalent:

HOOTON: *Elbow Height*—[height . . . above the seat]

Indeterminable:

None

**HOEHE DER RECHTEN INNEREN KNOECHELSPITZE UEBER  
DEM BODEN [RIGHT SPHYRION HEIGHT]**

Reference: MARTIN

*Vertikale Entfernung des rechten Sphyrion †derjenige an der Spitze des Malleolus medius tibialis gelegene Punkt, der bei aufrechter Koerperhaltung am meisten nach unten sieht † vom Boden. Anthropometer.*

*[Vertical distance of the right Sphyrion †that point on the tip of the medial tibial malleolus which is most inferior in erect posture† from the floor. Anthropometer.]*

No Data Available

*Höhe der rechten inneren Knochelspitze ueber dem Boden*  
[Right Sphyrion Height]—MARTIN (Continued)

Similar Dimensions:

Equivalent:

FRANCE '65: *Hauteur du pied*  
MONTAGU: *Right Sphyrion Height*  
NATO: *Sphyrion Height*

Not Equivalent:

BULGARIA: *Medial Malleolus Height*—from malleolus internus  
GENEVA: *Ankle [Height]*—tip of the internal malleolus  
JAPAN: *Medial Malleolus Height*—medial malleolus  
KOREA: *Lateral Malleolus Height*—lateral malleolus  
KOREA: *Medial Malleolus Height*—medial malleolus  
NATO: *Ankle Height*—the least circumference of the ankle [height to level of]  
NATO: *Lateral Malleolus Height*—lateral malleolus  
NATO: *Medial Malleolus Height*—medial malleolus  
USAF '50: *Lateral Malleolus Height*—lateral malleolus  
USAF '50: *Medial Malleolus Height*—medial malleolus  
WAF RECRUITS: *Ankle Height*—medial ankle bone  
WOMEN: *Ankle Height*—medial point of the medial malleolus

Indeterminable:

None

**HÖHE DER RECHTEN KNIEGELENKFUGE UEBER DEM  
BODEN [RIGHT TIBIALE HEIGHT]**

Reference: MARTIN

Vertikale Entfernung des rechten Tibiale (derjenige Punkt des inneren Margo glenoidalis des Tibiakopfes, der bei aufrechter Körperhaltung am höchsten gelegen ist) vom Boden. Anthropometer. (soll das Individuum . . . in straffer Haltung . . . stehen)

[Vertical distance of the right Tibiale (that point on the medial edge of the articular surface of the head of the tibia which is most superior in erect posture) from the floor. Anthropometer. (the individual shall . . . stand . . . in erect posture)]

No Data Available

*Höhe der rechten Kniegelenksfuge ueber dem Boden*  
[Right Tibiale Height]—MARTIN (Continued)

Similar Dimensions:

Equivalent:

ARMY QM: *Lower Leg Length*  
BULGARIA: *Length of the Lower Leg*  
FRANCE '65: *Hauteur de l'interligne interne du genou*  
GENEVA: *Knee [Height]*  
MONTAGU: *Right Tibiale Height*

Not Equivalent:

COMAS: *Leg Length*—from tibiae to the sphyrion  
NORWAY: *Tibia Length*—soldier lies down . . . malleolus internus . . . [to]  
upper edge of the tibia  
WOMEN: *Tibiale Height*—The subject placed her left foot on a chair

Indeterminable:

None

See Also:

*Kneecap Height*  
*Leg Length*

HOEHE DER RECHTEN MITTELFINGERSPITZE UEBER DEM  
BODEN [RIGHT DACTYLION HEIGHT]

Reference: MARTIN

Vertikale Entfernung des rechten Daktylion (derjenige Punkt am Vorderrand der Fingerbeere des Mittelfingers, der bei hängendem Arm am tiefsten gelegen ist) vom Boden. Anthropometer. (soll das Individuum . . . in straff- Haltung . . . stehen). Zur Abnahme dieses . . . Masses muss der rechte Arm in der . . . gestreckten, absolut ruhigen Haltung verbleiben. (lasse man den Arm in moeglich-ter Streckung an den Koerper anlegen, so dass er parallel zum Messinstrument gerichtet ist). . . . Die Hand muss . . . in die gerade Verlaengerung des Armes zu liegen kommen; sie verliert also die Beruehrung mit der Seitenflaeche des Oberschenkels.

[Vertical distance of the right dactylion (that point on the tip of the middle finger which is lowest with the arm hanging) from the floor. Anthropometer. (the individual shall . . . stand . . . in erect posture). To measure this dimension, the right arm must remain in the . . . straightened and calm position (have the subject touch his straightened arm to his body so it is parallel to the measuring instrument). The

*Hoche der rechten Mittelfingerspitze ueber dem Boden*  
[Right Dactylion Height]—MARTIN (Continued)

hand must be stretched completely, that is, it must be in a straight line with the arm. Therefore it no longer touches the thigh.]

No Data Available

Similar Dimensions:

Equivalent:

GENEVA: *Tip of Middle Finger [Height]*

MONTAGU: *Right Dactylion Height*

Not Equivalent:

NATO: *Dactylion Height*—arms and hands extended, and the palms touching the thighs

Indeterminable:

None

**HOEHE DER SCHLEIMHAUTLIPPEN [LIP HEIGHT]**

Reference: MARTIN

Geradlinige Entfernung des Labrale sup. †Schnittpunkt einer an die hoechsten Erhebungen des Orbitatrandes der Schleimhautoberlippe gelegten Tangente und der Mediansagittal-Ebene† vom Labrale inf. †derjenige Punkt, an welchem der Unter-rand der Schleimhautunterlippe von der Mediansagittal-Ebene geschnitten wird†. Gleitzirkel. Das Mass muss bei geschlossenem Mund und ruhiger Haltung genommen werden.

[Straight line distance of labrale superius †the intersection of a tangent touching the top elevations of the curve of the red part of the upper lip and the midsagittal plane† from labrale inferius †the intersection of the bottom edge of the red part of the lower lip and the midsagittal plane†. Sliding Caliper. This measurement must be taken while the mouth is closed and still.]

No Data Available

Similar Dimensions:

Equivalent:

KOREA: *Lip-to-Lip Distance*

MONACO: *Hauteur bilabiale*

NATO: *Lip-to-Lip Distance*

*Hoehe der Schleimbautlippen [Lip Height]—MARTIN (Continued)*

USAF '50: *Lip-to-Lip Distance*

USN: *Lip-to-Lip Distance*

Not Equivalent:

None

Indeterminable:

None

**HOEHE DES GRIFFELFORTSATZES DES RECHTEN RADIUS  
UEBER DEM BODEN [RIGHT WRIST HEIGHT]**

Reference: MARTIN

Vertikale Entfernung des rechten Stylium *†derjenige Punkt des Processus styloideus radii, der bei haengendem Arm am meisten nach unten gerichtet ist†* vom Boden. Anthropometer. *†Zur Abnahme dieses . . . Mass muss der rechte Arm in der . . . gestreckten, absolut ruhigen Haltung verbleiben.†* *†lasse man den Arm in moeglichster Streckung an den Koerper anlegen, so dass er parallel zum Messinstrument gerichtet ist†* *†soll das Individuum . . . in straffer Haltung . . . stehen†*.

[Vertical distance of the right stylium *†that point of the radial styloid process which is most inferior with the arm hanging†* from the floor. Anthropometer. *†While measuring this . . . dimension, the right arm must remain in the . . . straightened and fixed position†*. *†Have the subject touch his straightened arm to his body so it is parallel to the measuring instrument†* *†the individual shall . . . stand . . . in erect posture†* ]

No Data Available

Similar Dimensions:

Equivalent:

FAA: *Wrist Height*

GENEVA: *Wrist [Height]*

KOREA: *Wrist Height (Stylium Height)*

MONTAGU: *Right Stylium Height*

NATO: *Stylium Height (Wrist Height)*

USAF '50: *Wrist Height (Stylium Height)*

*Höhe des Griffelfortsatzes des rechten Radius ueber dem Boden*  
*[Right Wrist Height]—MARTIN (Continued)*

Not Equivalent:

None

Indeterminable:

None

**HOEHE DES NABELS UEBER DEM BODEN [WAIST HEIGHT—OMPHALION]**

Reference: MARTIN

Vertikale Entfernung des Omphalion vom Boden. Anthropometer. Man nehme den Mittelpunkt des Nabels bei ruhigem Atmen in der Mitte zwischen In- und Expiration. †soll das Individuum . . . in straffer Haltung . . . stehen†

[Vertical distance of the omphalion above the floor. One takes the middle point of the navel during quiet breathing, in the middle between inspiration and expiration. †the individual shall . . . stand . . . in erect posture†]

No Data Available

Similar Dimensions:

Equivalent:

GENEVA: *Umbilicus or Navel [Height]*

NATO: *Waist Height—Omphalion*

USN: *Waist Height*

Not Equivalent:

ARMY '66: *Waist Height (Iliocristale Height)*—to the upper edge (iliac crest)  
 ARMY AVIATORS: *Waist Height (Outseam)*—to the upper edge of the hip bone at the waist

ARMY QM: *Outseam*—to right cristale †highest point on the iliac crest

COMAS: *Total Lower Extremity Length*—from iliocristale †the most laterally projecting point of the crest of the ilium

JAPAN: *Waist Height*—to the waist point †the natural waistline . . . greatest natural indentation

KOREA: *Waist Height*—to the waist point †the natural waistline . . . greatest natural indentation

MONTAGU: *Right Iliocristale Height*—from the most laterally projecting point on the crest of the right ilium

NAVY RECRUITS: *Waist Height (Iliocristale Height)*—to the upper edge

*Hohe des Nabels ueber dem Boden [Waist Height—Omphalion]*—MARTIN (Continued)

(iliac crest)

THAI: *Waist Height*—to top of right hip bone (superior margin of ilium)

USAF '50: *Waist Height*—to the waist point †the natural waistline . . . greatest natural indentation

USMC: *Waist Height (Iliocristale Height)*—to the upper edge (iliac crest)

VIETNAM: *Waist Height*—to top of right hip bone (superior margin of ilium)

WAC: *Waist Height*—to left lateral waist point †minimum circumference between the iliac crests and the 12th rib

WAF RECRUITS: *Waist Height*—to the marked waist line [sketch indicates between omphalion and greatest lateral indentation]

WOMEN: *Waist Height*—lower edge of the lowest rib

Indeterminable:

FAA: *Waist Height*—[waist not defined]

WASP: *Waist Height*—[waist not defined]

See Also:

*Abdominal-Extension Height*

*Spinous Process of 5th Lumbar Vertebrae (Height)*

*Waist Height, Sitting*

**HOEHE DES OBEREN BRUSTBEINRANDES UEBER DEM  
BODEN [SUPRATERNALE HEIGHT]**

Reference: MARTIN

Vertikale Entfernung des Suprasternale †derjenige am Oberrand des Brustbeins gelegene Punkt der Incisura jugularis, der von der Mediansagittal-Ebene geschnitten wird† vom Boden. Anthropometer. †soll das Individuum . . . in straffer Haltung . . . stehen†

[Vertical distance of Suprasternale †that point in the jugular notch at the upper edge of the sternum which is in the mid-sagittal plane† from the floor. Anthropometer. †the individual shall . . . stand . . . in erect posture†]

No Data Available

Similar Dimensions:

Equivalent:

FAA: *Suprasternal Height*

FRANCE '65: *Hauteur supra-sternale*

*Höhe des oberen Brustbeinrandes ueber dem Boden*  
[Suprasternal Height]—MARTIN (Continued)

GENEVA: Supra-sternal Notch [Height]  
JAPAN: Suprasternale Height  
KOREA: Suprasternale Height  
MONTAGU: Suprasternal Height  
NATO: Suprasternale Height  
USAF '50: Suprasternale Height  
USN: Suprasternal Height

Not Equivalent:

None

Indeterminable:

None

**HOEHE DES OBEREN SYMPHYSENRADES UEBER DEM BODEN**  
**[PUBIC SYMPHYSIS HEIGHT]**

Reference: MARTIN

Vertikale Entfernung des Symphysion *†derjenige Punkt des Oberrandes der Symphysis ossis pubis, der in der Mediansagittal-Ebene gelegen ist†* vom Boden. Anthropometer. *†soll das Individuum . . . in straffer Haltung . . . stehen†*

[Vertical distance of the symphysis *†that point on the upper surface of the pubic symphysis which lies in the mid-sagittal plane†* from the floor. Anthropometer. *†the individual shall . . . stand . . . in erect posture†*]

No Data Available

Similar Dimensions:

Equivalent:

GENEVA: Pubes [Height]

Not Equivalent:

None

Indeterminable:

None

See Also:

Penale Height  
Right Iliospinale Height

## HOEHE DES RECHTEN AKROMION UEBER DEM BODEN [RIGHT ACROMIAL HEIGHT]

Reference: MARTIN

Vertikale Entfernung des rechten Akromion †*derjenige Punkt des Seitenrandes des Processus acromialis des Schulterblattes, der bei aufrechter Koerperhaltung und haengendem Arm am meisten scillich gelegen ist*† vom Boden. Anthropometer. Vor der Vornahme der Messung lasse man den Arm in moeglichster Streckung an den Koerper anlegen, so dass er parallel zum Messinstrument gerichtet ist. †soll das Individuum . . . in straffer Haltung . . . stehen†

[Vertical distance of the right acromion †*that point on the lateral edge of the acromial process of the scapula which is located most laterally if the posture is erect and the arm is hanging*† from the floor. Anthropometer. Before starting to measure, have the subject touch his straightened arm to his body so it is parallel to the measuring instrument. †*the individual shall . . . stand . . . in erect posture*†]

No Data Available

Similar Dimensions:

Equivalent:

ARMY '66: *Shoulder Height (Acromiale Height)*  
MONTAGU: *Right Acromial Height*  
NAVY RECRUITS: *Shoulder Height (Acromiale Height)*  
THAI: *Shoulder Height*  
USMC: *Shoulder Height (Acromiale Height)*  
VIETNAM: *Shoulder Height*  
WAF RECRUITS: *Acromial Height*

Not Equivalent:

FAA: *Shoulder Height—using a wall board*  
GENEVA: *Acromion [Height]—superior and external border of the acromion*  
HRDLICKA: *Shoulder Height—upper surface of the outermost part of the acromion*  
JAPAN: *Shoulder Height— highest point on the lateral edge of the shoulder bone*  
KOREA: *Shoulder Height (Acromial Height)— highest point on the lateral edge of the shoulder bone*  
NATO: *Acromiale Height (Shoulder Height)— highest point . . . on the lateral edge of the acromial spine*  
USAF '50: *Shoulder Height (Acromial Height)— highest point on the lateral edge of the shoulder bone*  
WAC: *Acromion Height— most lateral point on the superior surface of the acromial process*

*Hoche des rechten Akromion ueber dem Boden*  
[*Right Acromial Height*]*—MARTIN (Continued)*

Indeterminable:

None

See Also:

*Shoulder Height, Sitting*

**HOEHE DES RECHTEN GROSSEN ROLLHUEGELS UEBER  
DEM BODEN [RIGHT TROCHANTERIC HEIGHT]**

Reference: MARTIN

Vertikale Entfernung des Trochanterion, d.h. des Oberrandes des rechten Trochanter major vom Boden. Anthropometer. †soll das Individuum . . . in straffer Haltung . . . stehen†

[Vertical distance of trochanterion, that is the upper rim of the right, greater trochanter, above the floor. Anthropometer. †the individual shall . . . stand . . . in erect posture†]

No Data Available

Similar Dimensions:

Equivalent:

GENEVA: *Great Trochanter Height*

MONTAGU: *Right Trochanterion Height*

NATO: *Trochanteric Height*

Not Equivalent:

WAC: *Hip Height*—most lateral point on the greater trochanter of the femur

WOMEN: *Hip Height*—at the most prominent bony point in the region of the trochanter major

Indeterminable:

None

See Also:

*Right Iliospinale Height*

## HOEHE DES RECHTEN VORDEREN OBEREN DARMBEINSTACHELS UEBER DEM BODEN [RIGHT ILIOSPINALE HEIGHT]

Reference: MARTIN

Vertikale Entfernung des rechten Iliospinale ant. †der am meisten abwärts gerichtete Punkt der Spina iliaca ant. sup.† vom Boden. Anthropometer. †soll das Individuum . . . in straffer Haltung . . . stehen†

[Vertical distance from the right iliospinale anterior †the most inferior point of the anterior superior iliac spine† to the floor. Anthropometer. †the individual shall . . . stand . . . in erect posture†]

No Data Available

Similar Dimensions:

Equivalent:

None

Not Equivalent:

BULGARIA: *Leg Length*—from iliospinale to the floor

FRANCE '65: *Hauteur de l'épine iliaque antéro-supérieure*—[to the most anterior projection of the iliac crest]

MONTAGU: *Right Iliospinale Height*—from the right anterior-superior iliac spine to the floor

Indeterminable:

None

See Also:

*Pubes [Height]*

*Hip Height*

## HORIZONTALUMFANG DES KOPFES [HEAD CIRCUMFERENCE]

Reference: MARTIN

Umfang annähernd horizontal rund um den Kopf. Bandmass. Man haelt den Nullpunkt des Bandmasses . . . auf der Glabella †diejenige Erhebung im unteren Teil der Stirn, die oberhalb der Nasenwurzel und zwischen den haereuen Augenbrauen gelegen ist. Als Messpunkt dient der in der Mediansagittal-Ebene am meisten vorspringende Punkt† fest, fuehrt es . . . ueber die linke Kopfseite bis zu dem vorspringenden Punkt des Hinterkopfes (Opisthokranion) und dann ueber die rechte Kopfseite zurueck zur Stirn, . . . Man achte darauf, dass es an beiden Seiten des Kopfes gleich hoch zu liegen kommt.

*Horizontalumfang des Kopfes [Head Circumference]—MARTIN (Continued)*

[Approximately horizontal circumference around the head. Tape. One holds the zero point of the tape . . . on glabella *†that protrusion in the lower part of the forehead which is situated above the nasal root and between the bony brows. As the measuring point use the most forward protruding point in the mid-sagittal plane†*, place the tape around the left side of the head to the protruding point at the back of the head (opisthocranium) and then around the right side of the head to the forehead. . . . Make sure that the tape is at equal height on both sides of the head.]

No Data Available

**Similar Dimensions:**

**Equivalent:**

BULGARIA: *Head Circumference*

MONTAGU: *Maximum Circumference of the Head*

**Not Equivalent:**

AAF: *Head Circumference*—[sketch indicates . . . above brow ridges]

ARMY '66: *Head Circumference*—just above the bony brow ridges

ARMY ARMORED: *Head Circumference*—[reference generally follows reference AAF]

ARMY AVIATORS: *Head Circumference*—above the brow ridges

ARMY QM: *Head Circumference*—above the brow ridges

AUSTRALIA: *Head Circumference (Size)*—one-half inch above the ears

FAA: *Head Circumference*—immediately above the brow ridges

FRANCE '55: *Tour de tête*—[touching the occipital, parietal, temporal and frontal regions]

FRANCE '65: *Périmètre de la tête*—[between the frontal lobes and the eyebrow arches]

HRDLÍČKA: *Head Circumference*—above the . . . ridges

JAPAN: *Head Circumference*—above . . . the brow ridges

KOREA: *Head Circumference*—above . . . the brow ridges

NATO: *Head Circumference*—above . . . the brow ridges

NAVY RECRUITS: *Head Circumference*—just above the bony brow ridges

THAI: *Head Circumference*—above eyebrow ridges

USAF '50: *Head Circumference*—above . . . the brow ridges

USMC: *Head Circumference*—just above the bony brow ridges

USN: *Head Circumference*—above . . . the brow ridges

VIETNAM: *Head Circumference*—above eyebrow ridges

WAC: *Head Circumference*—just above glabella

WAF RECRUITS: *Head Circumference*—over [on] the brow ridges

WASP: *Head Circumference*—[sketch indicates . . . above brow ridges]

**Indeterminable:**

TUFTS: *Circumference [Head]*—[no landmarks specified]