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Anesthesia Advances During the Civil War

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The advent of general inhalation anesthesia, in the form of ether (1846) or chloroform (1847), revolutionized medicine for surgeons and patients. Its efficacy in wartime was quickly tested in the Civil War, establishing that painless surgery on the battlefield might be possible (Fig. 1). Despite prior, widespread use of ether by American doctors, chloroform became the anesthetic agent of choice by Union and Confederate Army surgeons, due primarily to its nonflammability and the “rapidity of its effects [...] and from the small quantity required.” Army Surgeon B. B. Breed, United States Volunteers wrote that while he personally preferred ether, “on the field of battle [...] chloroform is the safe and preferable agent.”

As the war progressed, authors of the “Medical and Surgical History of the War of Rebellion (MSHWR)” determined that gathering statistics on the use of anesthesia was “impracticable.” Indeed it may be the only instances in the creation of “MSHWR’s” six volumes that the gathering of data was considered unfeasible—a notable distinction in its own right. They determined that chloroform was used at least 80,000 times and individual testimonies from field surgeons

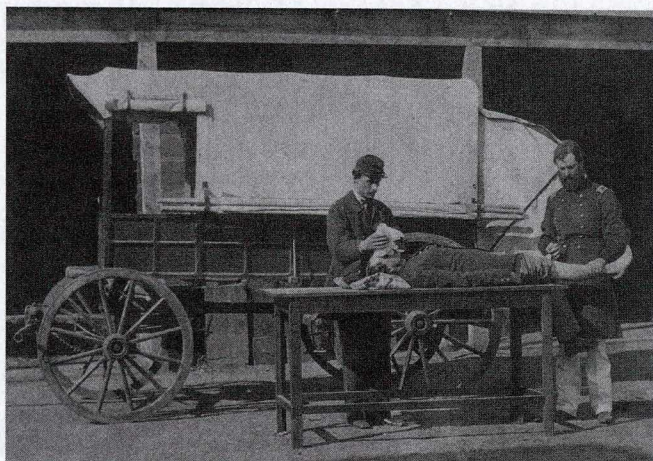


FIGURE 1. A Union army surgeon (right) and his assistant (left) stand in front of a Civil War medical wagon as they administer chloroform as an anesthetic to a soldier before amputating his leg. The assistant has placed a cone made of cloth over the patient's mouth and nose preparatory to dripping the anesthetic on to it. On average, it took about 9 minutes for the chloroform to take effect. (CP 1563/Otis Historical Archives/National Museum of Health and Medicine photograph/Released.)

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noted that they “invariably,” “universally,” or “in every painful operation” used chloroform. Only 37 deaths (5.4 deaths per thousand cases) were attributed to chloroform as surgeons repeatedly emphasized the importance of dosage and the risks of overusing chloroform.

This information should put to rest the stories of soldiers biting on bullets or being overdosed with whisky during surgery. The Army Medical Department was a different institution in 1865, considering its profoundly grim assessment at the start of the war. When Dr. William Hammond was appointed Surgeon General and head of the Army Medical Museum in 1862, his reforms included the elimination of outdated practices and the promotion of newly trained surgeons such as Jonathon Letterman. Hammond's Medical Corps focused on modern standards of care, such as the use of chloroform, yet the image of “backwoods medicine” is still associated with the Civil War, rather than its triumphant reorganization and modernization.