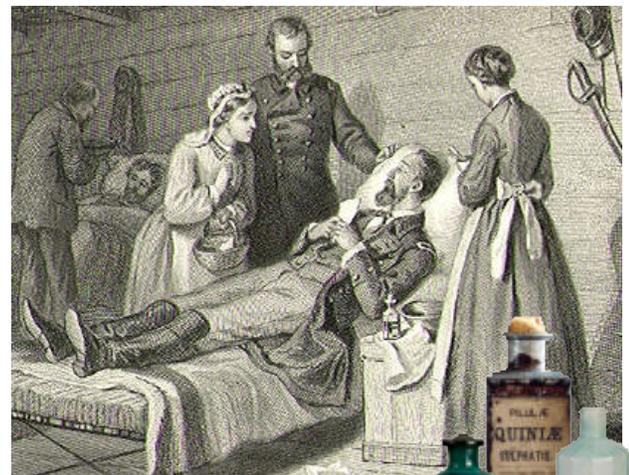


Prior to the Civil War...

American medicine was still in a dark age. For students preparing to enter the field, the fundamentals of medicine were based largely on book knowledge. Though some students took an added step of apprenticing with an already practicing physician, the vast majority of doctors had little to no hands on experience before encountering their first patient.

In addition, there was shifting opinion on how people became ill. One faction of doctors, belonging to the old world-view believed that a patient could be cured from disease by correcting an imbalance in the body. This was the primary view behind most decisions to bleed a patient. But, as medicine quickly approached the mid nineteenth century and the devastating impacts of the Civil War that would aid in launching the birth of modern medicine, this view was quickly fading.

The ideas that replaced this view of balance and imbalance are similar to what we know today about contagious diseases. Doctors began to suggest that an illness was caused by something outside of the body, spreading from person to person. This new world-view would be the primary puzzle piece on which the understanding of disease and infection would be fastened.



Two steps were to be taken to ensure proper medical care for wounded soldiers...

The first of these steps was to provide efficient transportation to medical facilities. Enter, the Ambulance Corps. Prototypes of ambulances created in 1859 were constructed in mass numbers, some of these having four wheels for stability and others having only two.

It was thought that all arrangements had been made for the treatment of wounded on the eve of the Battle of Bull Run in July of 1861. The Union army had hired a number of civilian drivers to transport the wounded from the battlefield, but the unexpected violence with which the battle was fought soon found all of these drivers retreating back to Washington D. C.- without any patients. Many of the wounded men were forced to walk the 30 miles back to the capital city.



The Ambulance Corps

In early 1862, Dr. Jonathan Letterman was appointed medical director of the Army of the Potomac. He immediately began to rework the structure of

of the corps. By combining the ambulances on a divisional level and training enlisted men, he ultimately created an early example of modern triage and transportation. By September 1862 the transformation from chaos to order was complete. During the Battle of Antietam, the Ambulance Corps removed all of the 10,000 Union wounded from the battlefield to field hospitals for treatment in twenty-four hours. This success earned Letterman the title of "Father of Battlefield Medicine."



Hospitals

The second step necessary to provide medical treatment for the wounded was to have efficient medical facilities available. The first stop for a soldier wounded on the battlefield was at the "primary" or "dressing" station. This first station was a small tent set up just out of rifle range. Here a soldier's injuries were examined, bleeding stopped, and his wounds bandaged. If possible he would be sent back to the front. If not, arrangements were made for a soldier to receive more treatment, often in the form of surgery, at a field hospital. Located 1.5 to 2 miles away, the field hospitals were established in churches, schools, private homes, or, if necessary, in large tents that accompanied the division. After the battle, as the divisions prepared to march, the sick and wounded were moved to general hospitals. Located in larger cities such as Richmond and Chicago, these hospitals gave the care and attention vital for a wounded soldier to survive his wounds.



Anaesthesia

In the 1840s there was a discovery that changed the face of medicine, ushering forth the modern era of surgery. Dr. William Morton first introduced Ether as an anesthetic in 1846, followed by Dr. James Simpson's work with Chloroform in 1847. The idea that a patient could be asleep during surgery was so new that Oliver Wendell Holmes felt it necessary to name this grouping of drugs: he chose to pair the Greek prefix "an" meaning without with "aesthesia" meaning sensibility.

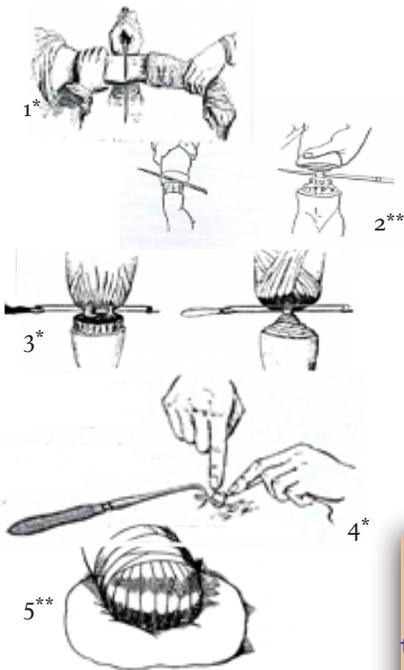


While both substances came in liquid form, and were inhaled by the patient from a soaked rag, Ether and Chloroform had their differences. Ether was highly flammable, foul smelling, and slow to work, but did not cause vomiting, prostrations, or excitement as did Chloroform. It was a general rule that while in the field, chloroform was used due to its rapid action and Ether was reserved for the slower paced general hospitals.

In all, there are over 80,000 documented cases of anesthesia used during the war showing that it was a welcome tool of healing in this bloody fight.



Amputation



Amputation. It is the one thing that seems to fit synonymously with Civil War medicine. Often spoken of as a needless procedure that cost an otherwise healthy young man a limb, the reality is that though the stories about the piles of limbs present in many field hospitals during battle are true, the procedure was life saving.

There are over 50,000 cases of amputations recorded for the war. The procedure was the quickest solution for a limb shattered beyond recognition, or the best chance against infection and hemorrhage that could take the soldier's life later. In fact, if an amputation took place within the first 24 hours, the soldier's chances of dying were a mere 27%. If performed later, the mortality rate jumped to 52%. Sometimes, it was the simple fact of sacrificing the limb to rescue the man.

1. The limb was prepared for the initial incision
2. A circular incision would be made around the limb, cutting away the first layer of skin and then the next all the way down to the bone.
3. An assistant surgeon would use either his hands or a piece of cloth to retract the soft tissue and muscle and the capital saw was used to saw through the bone.
4. A tenaculum was used to draw out any larger vessels and tie them off with sutures. Often times, catgut sutures, were preferred because they dissolved after time, making them unnecessary to remove them at a later date.
5. The skin and tissue was then pulled down over the stump and a dressing was applied.

*Courtesy of The Globe Pequot Press

** Courtesy of Cedar wood Publishing

Disease and Infection

Nearly two thirds of deaths during the war resulted from various diseases that plagued the soldiers, and 39% of soldiers who died from wounds received in battle, actually died from infection that set in after treatment. In all, Union Physicians treated an estimated 600,000 cases of disease ranging from childhood illnesses, such as Mumps and Measles, to Venereal Disease.



Diarrhea and Dysentery were the most commonly treated of all the illnesses and also responsible for the most deaths. In fact, during the first 2 years of the war, 27% of all diseases treated by Confederate doctors were some form of the diarrheal illnesses. Considered to be a “miasmatic” (coming from bad air) illness, the original treatment was to purge the body of any “irritating food or secretions” dehydrating a patient even further before morphine was administered. If given early enough, the painkiller, which also has properties to induce constipation, could save a soldier’s life.

Hospital Gangrene was probably one of the most feared of any disease. The infection presented itself initially as a black spot on a slowly healing wound. As the infection progressed, the black spot spread slowly through the wound and then on to perfectly healthy tissue, turning the once pink tissue to a mass of rotting flesh. Amputation was usually the end result; but before that extreme measure was taken, doctors tried a number of things including cauterizing the infected flesh with silver nitrate and even packing the wound with lint soaked in turpentine.

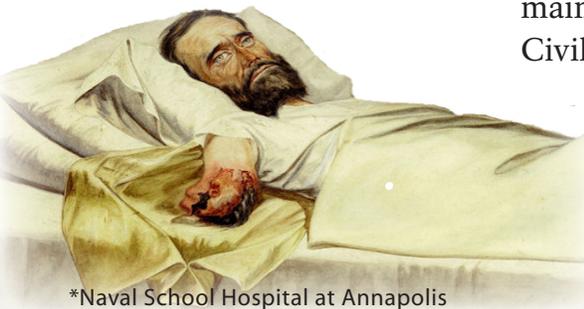
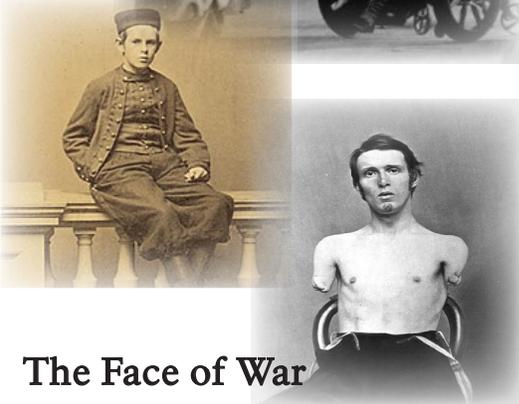


Our vision of the Civil War soldier is of the valiant lad in blue fighting to keep his country together and the spirited son with the Rebel Yell who fights for a lost cause, but these imaginings merely speak to our romanticism of the events that took place so long ago.



The American Civil War was one of the darkest moments in our nation’s history. Of the nearly 3 million men who marched into battle approximately 618,000 lost their lives, nearly 400,000 of these to disease. The death toll was nearly 2% of the entire population, and of the men lucky enough to be in the 79% who survived the war, nearly half a million returned home permanently maimed or disabled. These are the real faces of the Civil War Soldier.

The Face of War



*Naval School Hospital at Annapolis

