

Cut It Off – Civil War Amputations

SUBJECT

American Studies
Unit: Civil War
Lesson: Amputation

TEACHER

NMCWM

GRADE

04/08

DATE

Drafted: 4/23/2020

TIME REQUIRED

30/45 Minutes

OVERVIEW

The most common surgical procedure performed during the Civil War was amputation, accounting for three out of every four operations. About 60,000 amputations between both Union and Confederate armies were done throughout the four years of war. The high number left the surgeons open to harsh criticism and earned them the reputation of butchers. However, the large number of wounded awaiting treatment after a battle and the severe nature of the wounds caused by the Minié ball made amputation the practical procedure to follow.

Just prior to the Civil War, a new type of rifled musket and bullet were developed that increased the severity of the injuries to the soldiers. These new muskets had a longer range and better accuracy and the new bullets, called Minié balls, would flatten out on impact resulting in massive damage to tissue and bone. Civil War surgeons quickly learned that amputation gave their patients the best chance of survival. The limb was lost, but the soldier had less chance of developing gangrene, bone infection, and blood poisoning.

The most common amputation sites on the body were the hand, thigh, lower leg, and upper arm. The likelihood of surviving an amputation depended on the distance of the operation site from the trunk of the body, in addition to how long after the injury the surgery was performed. Generally, mortality rates dropped as the distance from the trunk of the body increased. Unfortunately for the soldiers and the surgeons, the Civil War was fought just years before the widespread acceptance of the Germ Theory and the understanding of antiseptics and the sterilization of instruments and equipment. The Civil War surgeons performed their work as best they could but did not have the knowledge of the role germs played in causing infection.

This activity is designed to explain and explore the role of new weaponry on battlefield wounds during the Civil War and why they led to amputation.

PHASES	4 TH GRADE	8 TH GRADE
CURRICULAR STANDARDS	SS.400.50.03.c Analyze regional differences in the Civil War and its effects on people in Maryland.	SS.AS1.80.01 Identify and explain the impact of key events & figures of the Civil War. SS.AS1.80.05 Explain how the Civil War caused technological change and medical advancements in America.
OBJECTIVE(S)	Students will explore the role of new weaponry on battlefield injuries and how it led to amputations during the Civil War.	Students will explore the impact of improved weaponry on battlefield injuries during the Civil War, how surgeons dealt with these wounds through amputations and the negative perception of surgeons who performed these procedures.
INFORMATION REQUIRED	Amputation Infection Minié ball	Amputation Infection Germ theory Minié ball
ACTIVITY	Engage: Amputation (the surgical removal of a limb) was a very common operation during the Civil War due to the use of new muskets and bullets called Minié balls. These bullets caused severe injuries to arms, legs, feet and hands. Surgeons found that patients were much more likely to survive if the injured limb was removed or amputated. Why do you think amputation was the best operation for these wounds?	Engage: Where do you think were some of the most common wounds Civil War soldiers suffered were? Explore: Have students watch a video on the Minié Ball https://www.youtube.com/watch?v=spvI-95Goe0 then examine Appendix B Explain: Why was the Minié Ball so deadly? What role do you think it played in amputations? Why do you think the

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	<p>Explore: Appendix A.</p> <p>Explain: What patterns can you see from the location of injuries in relation to the trunk of the body?</p> <p>Elaborate: Amputations are still performed today, but in a sterile and clean environment with antisepsis and clean instruments. How do you think amputations today compare to the Civil War, when surgeons did not understand the role of germs and didn't clean their hands or instruments?</p>	<p>location of the wound determined whether or not the patient was likely to survive? Why was it so important to perform these operations quickly?</p> <p>Elaborate: How do amputations performed today differ from those of the Civil War? Do you think modern survival rates are higher, lower or comparable to the Civil War era? Why?</p>
EVALUATION/ CLOSING	Why did Civil War surgeons perform so many amputations? How do you think modern amputation procedures differ from the Civil War?	Why were amputations so common during the Civil War? Do you think surgeons were unfairly criticized at the time? How do modern amputations differ from their Civil War counterpart?

REQUIREMENTS

- This can be adapted to students needs as necessary.

MATERIALS

- Worksheets attached

NOTES

This lesson can be done digitally in Microsoft Word or Google Docs. This can be modified so that students can use creative writing techniques or answer and meet certain requirements.

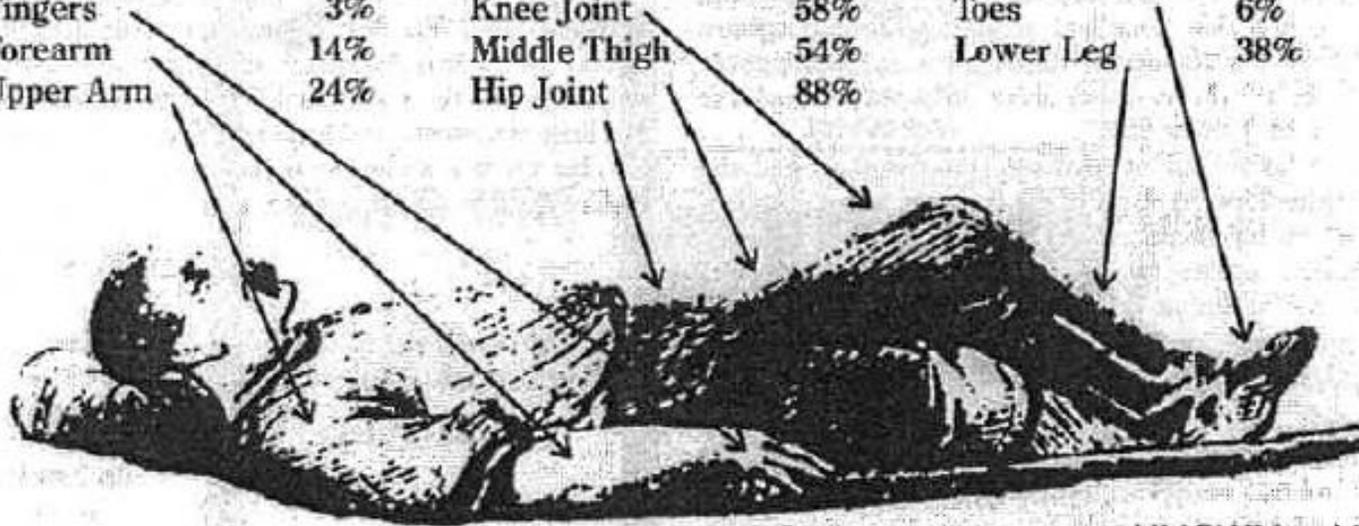
Amputations and Mortality

Wounded soldiers suffered different mortality rates depending on where the amputation took place.

Ninety-five percent of all the primary operations performed during the Civil War were done under some form of anesthesia, either chloroform or ether.

Region Mortality Rate

Fingers	3%	Knee Joint	58%	Toes	6%
Forearm	14%	Middle Thigh	54%	Lower Leg	38%
Upper Arm	24%	Hip Joint	88%		



—NMCWM exhibit panel

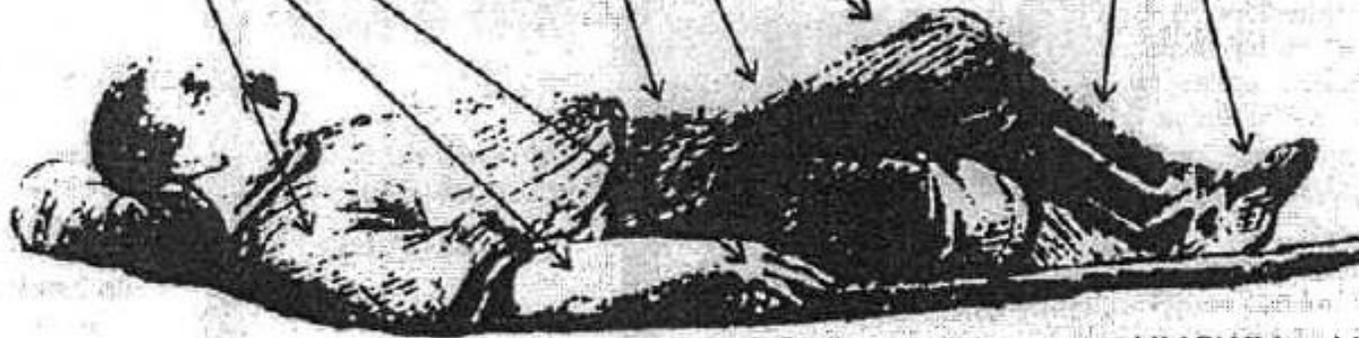
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Amputations were classified into three categories based on how soon after an injury they were performed: primary, intermediary, and secondary. Primary amputations were done within forty-eight hours of the injury, intermediary amputations took place between three and thirty days after the wounding, and secondary amputations were performed more than thirty days after the injury.

In general, primary amputations had the highest survival rate and were preferred by the surgeons for this reason. Intermediary amputations were the most dangerous because they were often done when the inflammation of the wound was at its greatest and the patient was suffering from its effects. Due to the sheer number of amputations performed, surgeons were harshly criticized and were even labeled as butchers.

Unfortunately for the soldiers and the surgeons, the Civil War was fought just years before the widespread acceptance of the Germ Theory and the understanding of antisepsis and the sterilization of instruments and equipment.

Additional Resources from the National Museum of Civil War Medicine:

- [The Wounding of Peleg Bradford](#) – Read in detail about Peleg Bradford’s wounding in this blog post
- [Amputation Kit Examination](#) – Membership and Development Coordinator Kyle Dalton examines the tools found in a Civil War amputation kit
- [Amputations in the Civil War](#) – This article takes a close look at the process of amputations in the Civil War
- [Civil War Prosthetics](#) – Find out what happened after the amputation for many soldiers in this examination of prosthetics of the Civil War
- [J.E. Hanger and the Growth of the Prosthetic Industry](#) – One of the first casualties of the Civil War went on to found one of the largest prosthetic limb companies, which still exists today. Read his story here

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