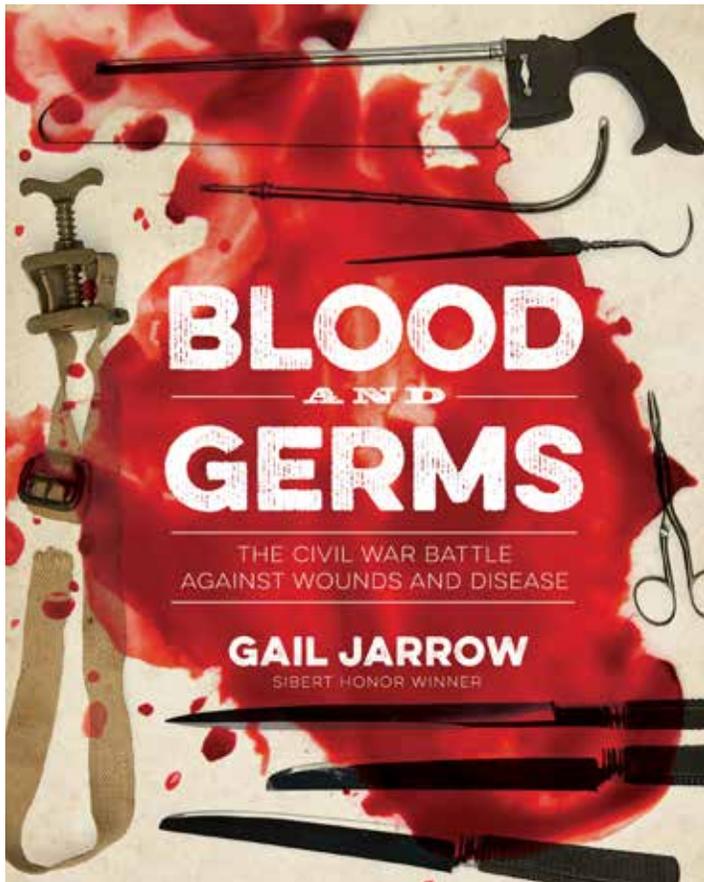


BLOOD AND GERMS

THE CIVIL WAR BATTLE
AGAINST WOUNDS AND DISEASE

GAIL JARROW

**A Discussion Guide
with Common Core
State Standard (CCSS)
Correlations**



ABOUT THE BOOK

The Civil War took more lives than nearly all other American wars combined, yet more soldiers died from disease than bullet wounds. Sibert Honor-winner Gail Jarrow describes the limitations of Civil War era medicine—from rudimentary hospitals and unsanitary conditions to inexperienced medical personnel and understaffed ambulance corps—but also explores how the horror of war led to advancements in medicine, including the creation of the triage system, improved prosthetics, and more. First-person accounts, photographs, and extensive research paint a vivid picture of the “blood and germs” of the Civil War. In addition, teachers and librarians can relate the history in this book with their students as they discuss current events, specifically how the world is dealing with the COVID-19 pandemic.

HC: 978-1-68437-176-1 • Grades 7 and up • Ages 10 and up • \$18.99 US / \$24.99 CAN •
eBook: 978-1-63592-334-6

DISCUSSION QUESTIONS AND RESEARCH

When the Civil War began in 1861, both the Union and Confederate sides were ill-equipped to deal with “the horror of a battle field.” In chapter one, how does the author use firsthand accounts to describe “the first major clash of the American Civil War,” the Battle of Bull Run (Manassas)? What was the likely outcome for soldiers wounded in that battle? **(13, 15)**
(CCSS.ELA-LITERACY.RH.6-8.1)

How did both sides recruit soldiers? Even though each enlistee had to pass an official medical examination before he could become a Union or Confederate soldier, the exams were often “performed quickly and superficially” and people who were not fit to serve due to health or age enlisted. Women and children sometimes managed to enlist despite gender and age restrictions. How did the Union army try to put an end to lax examinations? Were these efforts successful? **(20, 23)**
(CCSS.ELA-LITERACY.RH.6-8.1)

In chapter three, the author writes: “Army doctors had expected the volunteers from rural areas to be stronger and healthier than the city recruits.” Was that the case? The author states “a Civil War soldier was twice as likely to die of disease than from a battle wound.” What were some of the infections and diseases they were susceptible to? **(27–28)**
(CCSS.ELA-LITERACY.RH.6-8.1)

About 200,000 African American men fought for the Union in the Civil War. Why were many of them particularly susceptible to disease? Their death rates from disease and wounds in hospitals were often higher than for white troops. What were possible reasons for this? **(32, 65, 118)**
(CCSS.ELA-LITERACY.RH.6-8.1)

“In the 1860s, physicians and scientists believed that miasma . . . carried disease.” What does “miasma” mean? What were the real causes of diseases like malaria, dysentery, and typhoid? What were some things that could have been done to prevent the spread of those diseases? **(33)**
(CCSS.ELA-LITERACY.RH.6-8.4 and 6-8.1)

What chronic condition “killed more Civil War soldiers than any other disease”? **(40)**
(CCSS.ELA-LITERACY.RH.6-8.1)

Malnourishment affected soldiers in both armies, but Confederate soldiers were particularly desperate for food. How was the Confederacy’s food supply diminished by the war? **(44)**
(CCSS.ELA-LITERACY.RH.6-8.1)

What kinds of medicines were available at the time of the Civil War? How effective were those medicines? **(48–49)**
(CCSS.ELA-LITERACY.RH.6-8.1)

In 1849, Elizabeth Blackwell became the first woman to earn a medical degree in the United States. How did she help the Union during the Civil War? (50)

(CCSS.ELA-LITERACY.RH.6-8.1)

What was the goal of the United States Sanitary Commission (USSC)? How important were aid societies and commissions to the health of Civil War soldiers? (51–52, 54–55)

(CCSS.ELA-LITERACY.RH.6-8.1)

Dr. Mary Walker and Dr. Alexander Augusta both served as physicians during the war. What was unique about each of them? Most Civil War surgeons had limited wartime experience, but their skills improved over time as they became more familiar with battlefield injuries. Stewards assisted surgeons and performed different tasks on the battlefield and in field hospitals. What were the responsibilities of a steward? (60–63)

(CCSS.ELA-LITERACY.RH.6-8.1)

What made the Minié ball so deadly? (70–71)

(CCSS.ELA-LITERACY.RH.6-8.1)

Why were the battles fought on the Virginia Peninsula in the spring and summer of 1862 significant to the future of battlefield rescue and hospitals? (74–75)

(CCSS.ELA-LITERACY.RH.6-8.1)

Who was Dr. Jonathan Letterman? Why was he called the “Father of Battlefield Medicine”?

(80–81, 84, 86)

(CCSS.ELA-LITERACY.RH.6-8.1)

Who was Henry Bowditch? What personal tragedy drove Bowditch to launch a campaign for an army-wide ambulance corps? (82–83)

(CCSS.ELA-LITERACY.RH.6-8.1)

Describe a chief surgeon’s ideal specifications for a field hospital. What types of buildings were turned into field hospitals during the Civil War? (88–89)

(CCSS.ELA-LITERACY.RH.6-8.1)

“In the years before the war, surgery was rare.” During the Civil War, how many surgeries were performed? What kinds of surgeries were most common? What did the surgeons use to sedate the wounded soldiers? (95–96)

(CCSS.ELA-LITERACY.RH.6-8.1)

Clara Barton “operated independently of the commissions or the U.S. Army.” What kind of work did she do during the Civil War? What was the Missing Soldiers Office? Barton founded the American Red Cross in 1881. How do you think her experiences during the Civil War led to her founding that organization? (104)

(CCSS.ELA-LITERACY.RH.6-8.1)

As the war continued, doctors and nurses noticed that infections spread from patient to patient. Why did they think this was happening? What were some of the steps they took to prevent the spread of infection? Why did those measures help? (108)
(CCSS.ELA-LITERACY.RH.6-8.1 and RST.6-8.1)

Kate Cumming, a Confederate hospital matron, said, “The vivid recollections of what I have witnessed during years of horror have been so shocking that I have almost doubted whether the past was not all a fevered dream, and, if real, how I ever lived through it.” What were Civil War hospitals like? Did conditions improve as the war went on? (113, 115–117)
(CCSS.ELA-LITERACY.RH.6-8.1)

Who was Sally Tompkins? What was significant about her hospital? Who was Dorothea Dix? How was she influenced by Florence Nightingale? (120, 121)
(CCSS.ELA-LITERACY.RH.6-8.1)

At the end of the war, thousands of soldiers were released from prisoner of war camps. What were conditions like in the prison camps? How did the weather affect the prisoners differently in Confederate and Union prison camps? (127–130)
(CCSS.ELA-LITERACY.RH.6-8.1)

“Although the fighting had ended, the war’s damage was far from over for the wounded.” How were Civil War soldiers affected by their injuries after the war? What were some of the ways soldiers were helped after the war? What services were lacking for soldiers after the war? (130–133, 135, 138)
(CCSS.ELA-LITERACY.RH.6-8.1)

CURRICULUM CONNECTIONS

At the very beginning of chapter one, the author features a quote from Union General William Tecumseh Sherman: “There is many a boy here today who looks on war as all glory, but, boys, it is all hell.” After reading this book, do you agree with General Sherman? Using examples from the book, explain why you think he felt that way. (11)
(CCSS.ELA-LITERACY.RH.6-8.1 and SL.8.1.A)

The total number of Civil War deaths is subject to debate: “[e]stimates range between 620,000–750,000 men.” How large was the population of the US during the early 1860s? What percentage of the population is thought to have perished in the Civil War? (15)
(CCSS.ELA-LITERACY.RI.8.1)

Women were not allowed to serve in the army, yet “several hundred women passed” the required medical exam. Sarah Emma Edmonds and Frances Hook and others disguised their gender and fought in battle. Additionally, “Union records show that the U.S. Army hired at least 21,000 women to serve in military hospitals as nurses, matrons, laundresses, and cooks.” Explain how their efforts were critical to the war effort. **(21, 122)**

(CCSS.ELA-LITERACY.RH.6-8.1 and SL.8.1)

In the book, there are several instances where conventional wisdom was challenged by new thinking, but conventional wisdom often prevailed with disastrous results. For example, “in 1856, the British physician [Dr. William Budd] discovered that typhoid fever was transmitted by the feces of infected patients. To prevent this, Budd advised boiling polluted water before drinking. Unfortunately, his discovery was ignored by most of the American medical community.” Also, U.S. Army Surgeon General William Hammond “told the army’s surgeons to stop using calomel because he believed mercury harmed the body. Today we know that he was correct . . . [but] Hammond was forced from his position in 1864.” Why do you think it took a long time for people to heed the two doctors’ advice? Find other instances in the book where standard medical practices did more harm than good. **(41, 66)**

(CCSS.ELA-LITERACY.RST.6-8.1 and SL.8.1.A)

Some illnesses that affected Civil War soldiers were caused by viruses transmitted by infected droplets breathed out (or coughed and sneezed out) by an infected person. Measles, mumps, and smallpox are three highly contagious viruses from that category. Other illnesses like scurvy and tetanus were caused by the difficult conditions the soldiers endured (lack of fresh fruit and vegetables, lack of clean water, unsanitary conditions, and poor hygiene). All these diseases were serious and often deadly. Why were those diseases so deadly then? How common are these illnesses today? What are some of the ways disease prevention and treatment has changed in the last 150 years?

(CCSS.ELA-LITERACY.RH.6-8.1 and SL.8.1)

The author writes, “The Civil War was a dreadful period of blood and germs. Because of the great number of casualties—unprecedented in American history—the medical community was forced to respond with improvisation, innovation, and education.” After the war, what medical innovations became standard? **(135, 137)**

(CCSS.ELA-LITERACY.RH.6-8.1 and SL.8.1)

After the war ended, the lives of many Americans continued to be affected by “the legacy of agony and loss . . . Some communities designated a day each spring when friends and loved ones gathered in tribute to the fallen.” What US national holiday originated out of these smaller community events? How does your community observe Memorial Day? **(141)**

(CCSS.ELA-LITERACY.RH.6-8.1 and SL.8.1)

EXTRA CREDIT

What is the difference between a volunteer army and one where people of a certain age are drafted, or required to serve? When did the United States do away with its military draft? What type of armed forces requirement do you think a country should have?

(CCSS.ELA-LITERACY.SL.8.1.A)

Scurvy is a disease caused by vitamin C deficiency. Without fruits and vegetables, Civil War soldiers became malnourished and sick and many died. Scurvy is often associated with sailors. Why do you think this disease was a problem for them? How did a 1747 shipboard experiment show how to prevent scurvy? For more information, visit bbc.com/news/uk-england-37320399.

(CCSS.ELA-LITERACY.RST.6-8.1 and SL.8.1.A)

Mary Livermore was a tireless advocate for the U.S. Sanitary Commission, and “she rolled up her sleeves to care for soldiers herself.” After the war, she became a suffragette and pushed for reform. What is a suffragette? **(56)**

(CCSS.ELA-LITERACY.RI.8.4)

Who was Florence Nightingale? How did her work inspire women to volunteer during the Civil War? **(121)**

(CCSS.ELA-LITERACY.RST.6-8.1 and SL.8.1.A)

Because of the Civil War, “nursing eventually developed into a respectable female profession.” Additionally, aid organizations that were established early in the war continued to support soldiers after the war ended. What were some other ways society changed for the better after the war? **(123, 138)**

(CCSS.ELA-LITERACY.RST.6-8.1 and SL.8.1.A)

How can students better understand the COVID-19 pandemic now that they’ve read about the medical practices and mistakes that took place during the Civil War?

(CCSS.ELA-LITERACY.RST.6-8.1 and SL.8.1.A)

READING LIST

Walt Whitman is one of America’s most revered poets. In this book, the author relates Whitman’s firsthand experience with wounded soldiers during the Civil War. After Whitman’s younger brother was injured at the Battle of Fredericksburg in 1862, Whitman traveled to find him. Once he did, he stayed and helped “care for hundreds of seriously injured men” at the field hospital in Virginia. Then he traveled to Washington, DC, and volunteered in hospitals there. He went on to create “poetry and prose about his Civil War hospital experiences.” Read some of his poems from the Civil War—you can find them at whitmanarchive.org/. How are his poems different from the first-person accounts found in this book? How are they similar? **(104)**
(CCSS.ELA-LITERACY.RL.7.2)

Guide written by Jane Becker

