

## Connecticut Explored Curriculum Lesson Plan

**Topic:** Civil War Medicine: The Experiences of Dr. Nathan Mayer of the 16<sup>th</sup> Connecticut Volunteer Infantry

**Article:** Janice Mathews, "Doctoring on the Field of Battle," *Hog River Journal*, vol. 5, no. 2, Spring 2007, 46-47. [http://connecticutexplored.org/issues/v05n02/field\\_doctors.htm](http://connecticutexplored.org/issues/v05n02/field_doctors.htm)

**Written by:** Dr. Al Scopino, Captain Nathan Hale Middle School, 1776 Main Street, Coventry, Connecticut 06238. [ascopino@coventryct.org](mailto:ascopino@coventryct.org) (860) 742-7334

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**Description:** This lesson studies the medical aspect of the American Civil War. Focusing on the lives of Dr. Nathan Mayer, a Union surgeon from Connecticut and Dr. Spencer Glasgow Welch, a Confederate surgeon from South Carolina, students will explore the experiences and contributions of both men. Students will read Janice Mathews' article on Dr. Mayer from *Hog River Journal*, "Doctoring on the Field of Battle," and analyze several letters from the correspondence of Dr. Welch from the American Civil War: Letters and Diaries on line. In the first activity students will compose a persuasive letter to the governor of Connecticut requesting that Dr. Mayer be given a posthumous award for his wartime service. In the second activity they will compare and contrast the war experiences of both surgeons and complete a Venn diagram. Activities that expand and modify the lessons are also included under Authentic Assessments. From these readings and activities, students will become familiar with medical preparations, medical training, strategies, and difficulties during the war. They will also understand the woefully inadequate medical preparation for war that affected both North and South.

### State Standards Addressed:

Strand: 1.2 Describe the importance of significant events in local and Connecticut history...

Strand: 2.1 Access and gather information from a variety of primary and secondary sources...

Strand: 2.2 Interpret information from a variety of primary and secondary sources...

### Essential Questions:

1. How did technology change warfare in the 19<sup>th</sup> century and how effective were the North and the South in meeting medical demands during the Civil War?
2. What experiences did northern and southern physicians share during the Civil War?

### Objectives:

1. Students will gather pertinent information from primary sources and complete a Venn diagram.
2. Students will write a formal letter on behalf of Dr. Nathan Mayer for a posthumous award.
3. Students will identify medical instruments used during the war and know their uses.
4. Students will define and explain vocabulary terms including chloroform, amputation, U.S. Sanitary Commission, gangrene, prosthetics, Yellow Fever, small pox, malaria, and typhoid fever.

### Historical Background:

While Unionists and Confederates prepared to march off to war in 1861, both sides envisioned a quick, victorious end to the conflict. Mislead by their confident posturing, northerners and southerners saw little urgency to allocate money and other resources to bolstering medical preparations. According to medical historian Richard H. Shryock, both sides were ill-prepared for war. Medical preparations could not keep pace with the staggering casualty rate among the nearly three million combatants. Musket and rifle fire caused severe damage which challenged the capabilities of Civil War physicians. Surgical

practices were primitive and oftentimes fatal. To complicate matters, many of the wounded were regularly stranded on battle fields and eventually perished. Infections of wounds compelled medical personnel to routinely amputate limbs (Penicillin was not discovered until 1928.) Nursing was performed by recovering soldiers without any training in the field. In time, the introduction of ambulance staffs, field hospitals, and in the North, a federally-sponsored nursing corps under the supervision of Dorothea Dix, improved these conditions. In addition, diseases such as Typhoid, yellow fever, small pox, pneumonia, diphtheria, and tuberculosis, and scarlet fever, made their way around camp environments and reaped a deadly harvest. Finally, the training of medical personnel was varied and often unmonitored by state or other supervisory bodies. Physicians possessed little surgical experience, and with the exception of quinine and chloroform, had access to few medicinal alternatives.

After the firing on Fort Sumter, the North had only 98 medical officers in place. Competence varied widely. The gentle poet and nurse Walt Whitman recalled that medical work was often left to men “who are sometimes lacking in the right qualities. They are tyrants and shysters in all positions....” And Louisa May Alcott later recounted that she found “all manner of fault” among the surgeons she so capably aided. With the rash of early Confederate victories, on May 25, 1861, northern state governors were directed to appoint a surgeon and assistant surgeon to each regiment.

In the South, conditions were even worse. Medical schools were few and unregulated leading to chronic mismanagement. The shortage of trained medical personnel was commonplace within Confederate ranks that on one occasion a northern prisoner, William G. Stevenson, was pressed into service when a Confederate officer learned that he had attended two medical lectures in New York. Stevenson later recalled the high frequency of deaths caused by routine amputation. He also witnessed Confederate surgeons, recently out of college, performing difficult operations “with little regard for life or limb.” And Dr. Spencer G. Welsh, serving with General Thomas “Stonewall” Jackson, remembered conducting surgery by candlelight without chloroform on the battlefield.

In short, medical preparations in general, were inadequate to handle the problems presented by the Civil War.

### **Strategies:**

These lessons should be taught within the context of the American Civil War unit or chapter. Reading accounts by military surgeons provide a perspective on war that is often overlooked. To begin the lesson, I recommend viewing with students Ken Burns’ The Civil War, Episode 6, “The Shadow of the Valley of Death,” which includes a 15-minute segment on medical preparations and operations. This will acquaint students with the hazardous medical conditions during the war. Next, read the *Hog River Journal* article “Doctoring on the Field of Battle.” This article will introduce students to Dr. Nathan Mayer (1838-1912), Surgeon Major with the 16<sup>th</sup> Connecticut Volunteer Infantry who later became Surgeon General of Connecticut under Governor Marshall Jewell. Mayer saw action in Maryland, Virginia, and the Carolinas where he served capably. Later he was captured and was confined at Libby Prison. Students will discover Mayer’s encounter with medical difficulties and also note his resourcefulness in resolving these often uncomfortable situations. In light of Mayer’s service, students will write a persuasive letter to the governor of Connecticut requesting a posthumous award for the surgeon. Next, have students read the letters online of Dr. Spencer Glasgow Welch (1834-1926), a Confederate surgeon with the 20<sup>th</sup> South Carolina Volunteer Regiment who served in Virginia, in The American Civil War: Letters and Diaries. After the reading, have students complete the enclosed Venn diagram comparing and contrasting the writing of both surgeons. For additional assessments, see below.

### **Authentic Assessment Activities:**

The following two assessments can be done within two 45- or 90-minute periods.

1. **Assignment #1**-All students read Janice Mathews' "Doctoring on the Field of Battle," in Hog River Journal, vol. 5. no. 2, Spring 2007, 46-47, available online at [http://connecticutexplored.org/issues/v05n02/field\\_doctors.htm](http://connecticutexplored.org/issues/v05n02/field_doctors.htm). Next, all students view in Ken Burns' documentary The Civil War, Episode 6, a 15-minute segment entitled "The Shadow of the Valley of Death." Then students are required to write a one-page, persuasive letter to the governor of Connecticut recommending a posthumous award for Mayer in recognition for his service to the Union during the Civil War. Letters should include date, salutation, three reasons for the award, and closing with signature. Students can accomplish this assignment by reading the article, brainstorming ideas, and completing the letter in class. Or, students can read the article, brainstorm, compose a draft of the letter to be refined and typed for homework. (Best applied in two 45-minute classes or one 45-minute class with the letter completed for homework) (see rubric under Lesson Journal)

2. **Assignment #2**-After reading Mathews' article on Mayer, have students read the selected letters of Confederate surgeon, Dr. Spencer Glasgow Welch (see below for specific dates). Have students chart similarities and differences between the two. Share the following questions with students prior to reading Welch's letters: What are their concerns? What are their circumstances? What do they suffer? What do they desire? What are their perspectives on warfare? How do they resolve difficulties and conflicts? Having read accounts by both men, have students then complete a Venn diagram illustrating A) Mayer's conditions, concerns, circumstances, actions, B) Welch's conditions, concerns, circumstances, actions, and C) shared components. Share with class. (Best with one 90-minute class) (see rubric under Lesson Journal) Homework assignment will include defining the vocabulary words listed under Objectives.

**Alternatives to expand or modify** the lesson include the following (Rubrics to be created by individual teachers dictated by specific requirements):

3. **Assignment #3**-Students will illustrate instruments and other components of Civil War medicine and properly identify/label them. These may include medical bags, surgical instruments, bottles of medications used during the war, ambulances, nursing corps, and field hospitals. I recommend the following websites for information and great photos: [CivilWarPhotos.net](http://CivilWarPhotos.net) and [www.braceface.com/medical/Civil\\_War\\_Instruments.htm](http://www.braceface.com/medical/Civil_War_Instruments.htm).

4. **Assignment #4**-Read Dr. Nathan Mayer's full account edited by Stanley B. Weld, entitled "A Connecticut Surgeon in the Civil War: The Reminiscences of Dr. Nathan Mayer," from the Journal of the History of Medicine and Allied Sciences, vol. 3, no. xix, 1964, 272-286. Students then write a one-page diary entry from the perspective of a wounded soldier who was treated by Mayer or as a nurse serving with Mayer. Details should include the following: type of wound, proper location of battle site, type of treatment administered by Mayer, and hopes of recovery and return to civilian life.

5. **Assignment #5**-Students will perform a five-minute skit enacting a scene from a field hospital. Dialogue must include proper terminology from the Civil War era. Therefore, historical figures, injuries, diseases, locations, and treatments must be accurate.

6. **Assignment #6**-Two students will portray Dr. Nathan Mayer and Dr. Spencer Welch after the war. They engage in a five-minute dialogue in one of the rooms at a medical school discussing their experiences in the war. Again, attention should be paid to historical accuracy.

**Materials:**

1. Janice Mathews, "Doctoring on the Field of Battle," Hog River Journal, vol. 5, no. 2, Spring 2007, 46-47.
2. Letters of Dr. Spencer Glasgow Welch can be accessed on line at The American Civil War: Letters and Diaries. Hit "Browse" and then "Author," for Spencer G. Welch. The collection contains 55 letters of Welch to his wife. See letters dated June 3, 1862, June 29, 1862, September 3, 1862, March 9, 1863, January 14, 1864, May 7, 1864, and May 2, 1865. They are all brief and manageable for students.
3. Ken Burns, The Civil War, Episode 6, "The Valley of the Shadow of Death," 15-minute segment on Civil War medicine
4. Article by Stanley B. Weld, "A Connecticut Surgeon in the Civil War: The Reminiscences of Dr. Nathan Mayer," Journal of the History of Medicine and Allied Sciences, vol. 3, no: xix, 1964, 272-286.

**Annotated Bibliography:**

Adams, George Washington. Doctors in Blue: The Medical History of the Union Army in the Civil War. Baton Rouge: Louisiana State University Press, 1996.

This work serves as a good introduction to physician training, field experiences, hospital shortcomings and other difficulties experienced by the medical corps in the Civil War. The study not only provides information on the difficulties in military medicine at the time, but also explores the often strained human relationships between officers, medical personnel, and the nursing corps that only exacerbated problems.

Denney, Robert, E. Civil War Medicine: Care and Comfort of the Wounded. New York: Sterling Publishing Company, Inc., 1995.

Denney's work is a compilation of field experiences recorded by medical personnel from both sides in the war. After a brief introduction by the author, Denney provides a year-by-year account of the heroics and frustrations encountered on the medical front. This resource provides quick readings for students to capture the medical perspective on the war.

Fahs, Alice. ed., Hospital Sketches by Louisa May Alcott. New York: Bedford/St. Martin's, 2004.

Hospital Sketches provides a look into the work of the nursing corps during the war. Specifically, it is an account of Louisa May Alcott's service in the Washington D.C. area during the winter of 1862-1863. More importantly, however, it informs readers about the abuses suffered by women at the hands of male physicians and reflects the stoic resilience of female nurses in response to such treatment. The Civil War would provide an opportunity for women to serve in a capacity far beyond the home and farm. By the turn of the 20<sup>th</sup> century, nursing had become heavily feminized.

Freemon, Frank, R. Gangrene and Glory: Medical Care during the American Civil War. Chicago: University of Illinois Press, 2001.

An excellent source for instructors and students alike, Freemon's book is filled with high-interest battlefield accounts and photographs, but also delves into the complexity of Civil War medicine. As the author claims, it is the story of "imperfect human beings, struggling to save lives, and support their

respective causes, fighting the enemy, fighting their superiors, fighting against strange afflictions that defy understanding.” Based upon the author’s dissertation, the work is comprehensive and engaging. It offers an enormous amount of material that often is neglected in units covering the Civil War. Gangrene and Glory is a must-read for instructors to gain background material for their Civil War units.

Lowenfels, Owen, ed., Walt Whitman’s Civil War. New York: Da Capo Press, 1960.

Lowenfeld’s work is compiled from both published and unpublished sources written arguably by one of the most celebrated Americans to serve in the nursing corps, Walt Whitman. Whitman captures not only the suffering experienced after battle, but also gives readers a look into the social world of Civil War hospitals. In these pieces, Whitman shares his discussions with, and his ministrations to, wounded soldiers.

Shryock, Richard, Harrison. Medicine in America: Historical Essays. Baltimore: The Johns Hopkins University Press, 1966.

Older, yet immensely valuable, these essays were written by one of the first historians of American medicine. Of particular interest is “A Medical Perspective on the Civil War.” In this essay, Shryock exposes the appalling condition of American medicine at the time. If one is to understand the tragic suffering of the wounded in the war, this essay will be informative. Readers will come to understand the state of medical unpreparedness on both sides at the beginning of the conflict.

Whitman, Walt. Specimen Days. New York: The New American Library, 1961.

First published in 1882, this work includes close to 100 pages of stories, observations, and anecdotes from Whitman’s Civil War service as a nurse. Any number of these accounts offers an opportunity for students to compare and contrast similar experiences among members of the nursing corps, particularly of Alcott and Whitman.

### **Suggested Field Trip:**

A visit to the Hartford Medical Society Historical Library located at the University of Connecticut Health Center in Farmington, Connecticut, would make for a wonderful field experience. The collection houses not only a treasure trove of documents related to Connecticut medicine, but also includes exhibits on physicians’ medical bags and instruments throughout the 19<sup>th</sup> century. A smaller collection on medical artwork is also on exhibit. For students interested in a career in medicine or another branch of science, this trip is a must. The visuals in the library’s exhibits would provide stimulation for those interested in art. For students with special needs, the visuals would greatly enhance their understanding of the medical profession at the time. Small groups are advisable and a trip would greatly supplement the lesson and unit. Contact information is available through Jennifer Miglus, Hartford Medical Society Historical Library, University of Connecticut Health Center, Room LSB016, 263 Farmington Avenue, POBox 4003, Farmington, Connecticut 06034-4003 (860-679-3200). email: [miglus@uchc.edu](mailto:miglus@uchc.edu). In addition, I recommend the following website: [CivilWarPhotos.Net](http://CivilWarPhotos.Net) for medical photographs.

### **Lesson Journal:**

The Civil War continues to garner interest. However, most lessons focus upon the military aspect of the conflict. Examining the medical perspective offers something different as well as interesting, especially for those students who have no interest in military operations. Working with teachers from other disciplines can provide a more thorough opportunity to study the American Civil War: Literature

(Twain, “A Private History of a Campaign That Failed,” Crane, The Red Badge of Courage), the sciences (medical science), technology (weaponry), architectural drawing (hospitals), math (casualty figures), artwork (scenes from the war), and others can make for an interesting unit.

## **Assignment #1-Posthumous Award for Dr. Nathan Mayer**

<b><u>Criteria</u></b>	<b><u>Student self-evaluation</u></b>	<b><u>Teacher evaluation and comments</u></b>
<b>Letter includes date, salutation, closing, and signature</b>  <b>25 points</b>		
<b>Letter includes three solid reasons for the award</b>  <b>25 points</b>		
<b>Letter includes historical accuracy</b>  <b>25 points</b>		
<b>Letter includes correct grammar and spelling</b>  <b>25 points</b>		

# Assignment #2-

## Venn Diagram on Dr. Mayer and Dr. Welch

Free Graphic Organizers from Freeology.com

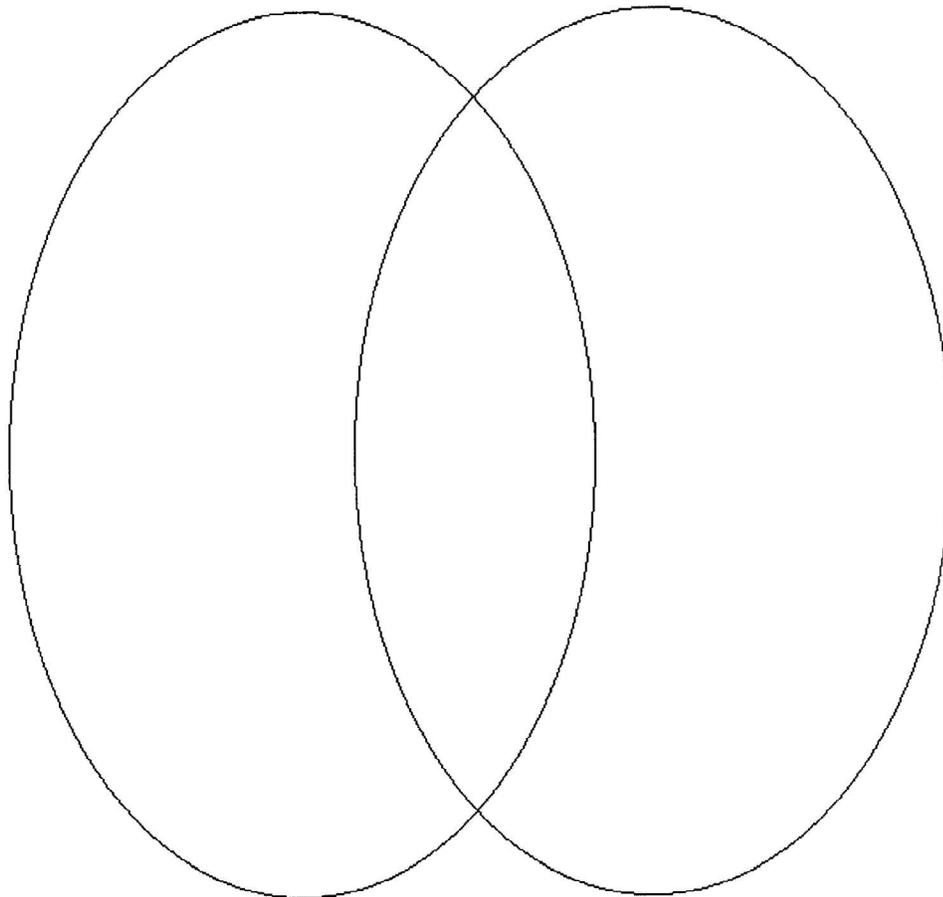
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Name \_\_\_\_\_

Date \_\_\_\_\_

**Venn Diagram**

Title \_\_\_\_\_



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