Entering the World Stage

Biography

Walter Reed
1851–1902

WHY HE MADE HISTORY An army medical doctor, Walter Reed is credited with conducting an experiment that proved that yellow fever is transmitted via mosquito bite.

As you read the biography below, think about how Walter Reed helped prevent a major plague of the nineteenth century from spreading. What impact did the elimination of yellow fever have on society then and now?

After the Spanish-American War, U.S. troops remained in Cuba to restore order to the island. The Army found that more people were dying as a result of yellow fever than were killed by the war. Dr. Walter Reed was sent to help eliminate this deadly disease.

The son of a Methodist minister, Walter Reed was born in Belroi, Virginia, in 1851. He went to medical school at the University of Virginia when he was just 17 and graduated the next year. He is still the youngest person to graduate with a medical degree in the school’s history. Reed continued his medical education in New York City. He did his residency at Brooklyn City Hospital, and then he became an assistant sanitation officer for the Brooklyn Board of Health.

Seeking financial security and an opportunity to travel, Reed joined the military as a surgeon in 1875. Over the next few years he held many different posts. While working with disease-ridden prisoners, he attracted the attention of Surgeon General Jedediah H. Baxter. Impressed by Reed, Baxter sent him to Fort McHenry, where he would have time to study pathology and bacteriology at Johns Hopkins Hospital.

He continued his research on the causes of common diseases. His research on diphtheria, a contagious respiratory disease, helped scientists figure out how it could be treated and prevented. Reed also headed a team that studied the cause of typhoid and determined how it could be prevented in military camps.

It was a yellow fever epidemic, however, that defined Reed’s career. Yellow fever had killed more than 100,000 Americans in the nineteenth century. In the military camps in Cuba, the disease ran rampant. Reed was appointed to head the Yellow Fever Board, charged with learning how the disease was spreading among American troops.
Entering the World Stage

Many scientists had already studied the disease. Some had looked into the role of mosquitoes, but most experts believed yellow fever was spread through contaminated clothing. Under Reed’s supervision, the board conducted one of the first controlled experiments on humans. Participants in the study allowed mosquitoes to bite them. They also lived in a controlled environment so that scientists could see whether contaminated clothes and bedding were to blame.

After several months, the board concluded that yellow fever was spread by mosquito bites and not by contaminated clothing or bedding. Board members ordered all pools with standing water to be drained in order to remove the sites where mosquitoes laid their eggs. Within 90 days, yellow fever was eliminated from Havana, Cuba. Later, the disease was eliminated from the United States and most of the Caribbean.

The research conducted by Reed set a precedent. His was the first medical study in which the human test subjects were fully informed about the research and had given their written consent. His research led to advances in medical ethics and helped others learn how to control and even eliminate several deadly diseases.

Walter Reed died at age 51 when he developed an inflammation after surgery for appendicitis. Today, the Walter Reed Army Medical Center serves the military community from the Washington, D.C., area, and around the world.

WHAT DID YOU LEARN?

1. Explain What role did Walter Reed play in finding the cause of yellow fever?

2. Draw a Conclusion What kind of example did Walter Reed set for the medical community?

ACTIVITY
Throughout history, there have always been diseases and medical problems with unknown causes and cures. What diseases are scientists studying today? Choose one disease and create a poster that warns people about its possible dangers and how it can be prevented, if known.

Copyright © by Holt, Rinehart and Winston. All rights reserved.