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## Railroad R?

Anne-Taylor Cahill  
*Old Dominion University*, [acahill@odu.edu](mailto:acahill@odu.edu)

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# Milestones

## Railroad Rx

Anne-Taylor Cahill

June 5, 1870: A brakeman at a remote western mine siding is attempting to guide a link-and-pin coupler into its slot when he slips on an oily cross-tie. His hand is crushed between the couplers. The fireman, not knowing what to do, wraps an oily rag around the stump. He lifts the brakeman into the caboose as the partly severed hand dangles in the wind. The nearest hospital is hundreds of miles away, but the conductor hopes to find a doctor in a large settlement down the line. In the meantime he can offer his comrade no comfort other than a few sips of water. The brakeman's cries of pain grow softer and the pool of blood beside him grows larger during the two-hour journey. He is unconscious when the train arrives at the settlement two hours later, and the crew carries him to a room in the station hotel. A local doctor amputates the hand, but gangrene develops in the wound. The brakeman begins to have fever and chills, and dies a few days later (RailwaySurgery.org).

Tales such as this abound in the annals of railroad history, which led to the first employer-offered health insurance. In fact, railroads hired their own doctors and opened their own hospitals. Employees paid a small insurance fee and the railroad paid the rest. For the railroads it was cheap insurance as workers could be treated under sanitary conditions, recuperate under medical supervision and get back to work quickly.

Because of the unusual type of injuries sustained by railroad workers railway surgery became a new medical specialty. In 1888 in Chicago, The National Association of Railway Surgeons held their first conference. The association eventually grew to 1,500 members and held conferences all over the country. The railroads supported the doctors and provided free first class travel to and from the conferences. Other than a medical degree, there was no special training or certification for railway surgery however, over time, these conferences affirmed the idea of this practice as a medical specialty. By 1894 a journal called *The Railway Surgeon* was being published bi-weekly. In 1899 a railway surgery textbook was published.

Because many injuries often occurred at night or in a remote spot, the railroad surgeons developed a hospital car which could be sent to the site of an injury. Hospital cars usually contained a holding area and a fully functioning operating room. This allowed surgeons to immediately stabilize a patient before sending him to a regular hospital. However, if needed, emergency surgery could be performed in the hospital car.

Ahead of their time, railroads hired women doctors. The first female railroad surgeon was Dr. Carrie Lieburg of Hope, Illinois. In Texas, Dr. Sofia Herzog was hired as chief surgeon for the St. Louis, Brownsville & Mexican Railway.

Moreover, the railroad surgeon was not limited to just railroad injuries. They also treated general illnesses, gave checkups and even delivered babies. Often the surgeons consulted with railroad officials regarding workplace health and safety issues. One result of these consultations was testing for color blindness. This was a major function of the surgeons.



Railway surgeon's emergency bag and instruments, manufactured by E. A. Yarnall Co, Philadelphia. *The Railway Surgeon*, 1894.

Color blindness in railroad workers who could not differentiate the colored signal lights had contributed to many fatal accidents. So the surgeons developed tests to determine color vision acuity. General vision tests were also developed. The eye test still used today with the big "E" at the top was one of their inventions. In addition, employee's hearing was tested. Using a pocket watch, employees who could hear its ticking from five feet away passed the test.

The first stand-alone railroad hospital was opened in 1869 in Sacramento, California. Though eastern railroads usually had access to general hospitals in the cities through which they passed, hospitals west of St. Louis were scarce. The railroad hospital concept essentially bloomed in the West.

Things had changed dramatically by 1920. The West was becoming more and more urbanized. Automobiles and trucks were competing with the railroads. Some people were beginning to have private health insurance and wanted to see their own doctors. By then most cities and towns had their own hospitals. Thus the railway surgeon slowly faded away. Notwithstanding the railway surgeon's demise, their influence on modern medicine and workplace safety remains with us today.



For further reading:

R. S. Gillespie, *The Train Doctors*, RailwaySurgery.org., 2006.

Raymond B. Kepner, *Industrial Medicine & Surgery, A Brief History*, 1963.

Henry J. Short, *Railroad Doctors, Hospitals and Associations: Pioneers in Low Cost Medical Care*, Lakeport, C. A., Shearer/Graphic Arts, 1986.