

# Bethlehem Moment: Dr. William L. Estes Comes to Bethlehem

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 *Latest in a series of posts on Bethlehem Moments* 

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City Council  
June 3, 2020

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## Bethlehem Moment: 1881

### Dr. William L. Estes Comes to Bethlehem

Dr. William L. Estes, first Superintendent, Director, and Chief Surgeon of St. Luke's Hospital, was a figure of immense importance in Bethlehem's history. Born in 1855 on a plantation in western Tennessee, he embarked on a career in medicine while still in his teens, eventually making his way to New York City to complete his medical training. His intelligence and diligence quickly brought him to the attention of some of the best clinicians of their day. Luckily for Bethlehem, in 1878 he was one of only two students selected for training at Mt. Sinai Hospital. His training there would have a profound impact on medical care not only in Bethlehem but nationally and internationally.

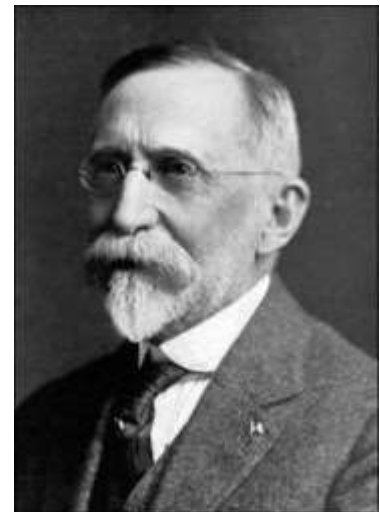


Medicine in America in those days was more craft than science. It was only in the 1860s that Dr. Joseph Lister took Pasteur's theories of bacterial contamination and applied them to surgical infections -- soaking surgical sponges, spraying wounds with antiseptic solution, washing surgical instruments, and wearing appropriate surgical gowns.

These ideas were controversial and not widely adopted outside of Germany. In fact, the famous 1885 painting by Thomas Eakins, *The Gross Clinic*, shows renown surgeon Samuel Gross surrounded by assistants who hover over a patient, all in their street clothes, without masks, and the patient wearing socks. Even through the 1880s and 1890s there was no general agreement about the causal role of bacteria in wound infection -- at least in the US and England. That was not the case in Germany, though, which was an early adopter of Listerian practices and Robert Koch's theories of bacteriology, and applied them to medical practice.

At Mt. Sinai, medical training was influenced by German theory and practice. In fact, business at the hospital was actually conducted in German. As a result, Dr. Estes was an early confirmed practitioner of Listerism (asepsis), much earlier than most other clinicians in the US. This placed him on the forefront of the revolution in medicine that resulted in a more scientific approach and better clinical and surgical outcomes.

In 1881, when he was just 26 years old, Dr. Estes was recruited to be St. Luke's first superintendent and director. Thankfully for the people of Bethlehem he brought this scientific orientation to the fledgling hospital. Over the course of the next 39 years, until his retirement in 1920, Dr. Estes created innovations that not only saved lives in Bethlehem but were also adopted widely in the US and overseas. Many of these innovations arose from the industrial environment that motivated Bethlehem's business leaders to establish the hospital.



The Lehigh Valley of that day was the hub of four railroads as well as home to a growing number of mines and mills. Industrial accidents, especially those associated with coupling and uncoupling rail cars by hand with no safety equipment, were a growing problem along the rail lines that stretch out from Bethlehem. The closest hospital was fifty miles away in Philadelphia.

One of his early innovations, which became a national standard, followed his appointment in 1882 as Chief Surgeon of the Lehigh Valley Railroad. He promptly organized the disconnected group of medical men who served the communities along the railroad lines into the Association of Lehigh Valley Railroad Surgeons. In 1886 he devised a uniform first aid kit to be carried on locomotives and cabooses of every freight train, established a course of lectures and demonstrations for first aid, and required conductors, engineers, station agents, and clerks to come to St Luke's for instruction.

Among Dr. Estes' most significant innovations was the founding of St. Luke's School of Nursing. Training women to serve as nurses was controversial at the time, but Dr. Estes' training in New York exposed him to the fledgling movement founded by Florence Nightingale and convinced him that appropriately trained women could be a vital adjunct to patient care. Not long after coming to St. Luke's, he began to lay the ground work for a nurse training program modeled on the Nightingale Plan. The school was established in 1884 making it among the earliest schools in the country. Today, St. Luke's School of Nursing is the nation's oldest nursing school in continuous operation.

Dr. Estes' experience treating injuries led to a subsequent innovation that revolutionized the treatment of compound fractures with the "plate and peg" method of splinting. His scientific approach to the study of treatment methods as a leader of a study for the American College of Surgeons led to the permanent establishment of the Committee on Trauma. As a result, the standard of fracture care in hospitals in the US and Canada improved immensely.

Dr. Estes was a remarkable man, an exceptional administrator, and medical visionary whose leadership greatly benefited the people of Bethlehem.

*"Without a shared history, we are not a true community."*

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