Joseph Lister was, born in Upton Essex in 1827. He entered medicine, obtaining his degree in 1852. Strangely, the branch of surgery, considered low in the profession at that time, fascinated him the most. As a surgeon the new technique of anesthesia, developed by Morton, allowed amputation and other surgery, painless and successful. However, he was perturbed by the fact that the patients died of subsequent infection, which was very common.

The next year, he went to Edinburgh, to work with the famous Scotch surgeon James Symes, as a resident house surgeon. This was a turning point in his life, for he married Symes daughter, Agnes. Agnes proved invaluable to him in his later research, because she could read French and through her translation, he learned about Pasteur’s work. Pasteur had proved that living organisms caused putrefaction. Lister reasoned that the organisms could be destroyed in air. Looking for a suitable chemical agent, as a microbe killer, he selected carbolic acid. In 1865, he used it on a compound fracture, despite its caustic property, resulting in irritation, but the wound healed, without any trace of hospital gangrene. Dilute solutions were used, to saturate wound dressings later.

Lister tried to exterminate microbes from the atmosphere, by carbolic spray, with the help of his students, while he and assistants gasped their way through operations. He also soaked his instruments in carbolic bath. Though unpopular with nurses and students, it cut the frightening mortality rate, which haunted every hospital, from 45% to 15%.

Continuing his methods, in 1867, he sent two papers to Lancet, “On the antiseptic principle in the practice of surgery”. It soon became evident, that asepsis and not antisepsis, was the proper objective.

Lister treated Queen Victoria for an abscess, employing carbolic acid successfully. He even cut off a piece of rubber tubing from the sprayer, to insert in the wound, in order to provide drainage, an innovation in those times. In 1883, he was made a baronet, and later he became the first physician, to sit in the House of Lords.

In 1886, sterilization with steam was introduced and in 1890, Halsted began the practice of wearing sterilized gloves. Gauze mask over the face was added in 1900. Today we have taken huge strides in asepsis, in modern surgical theaters, but Lister’s innovation was the first giant step.