
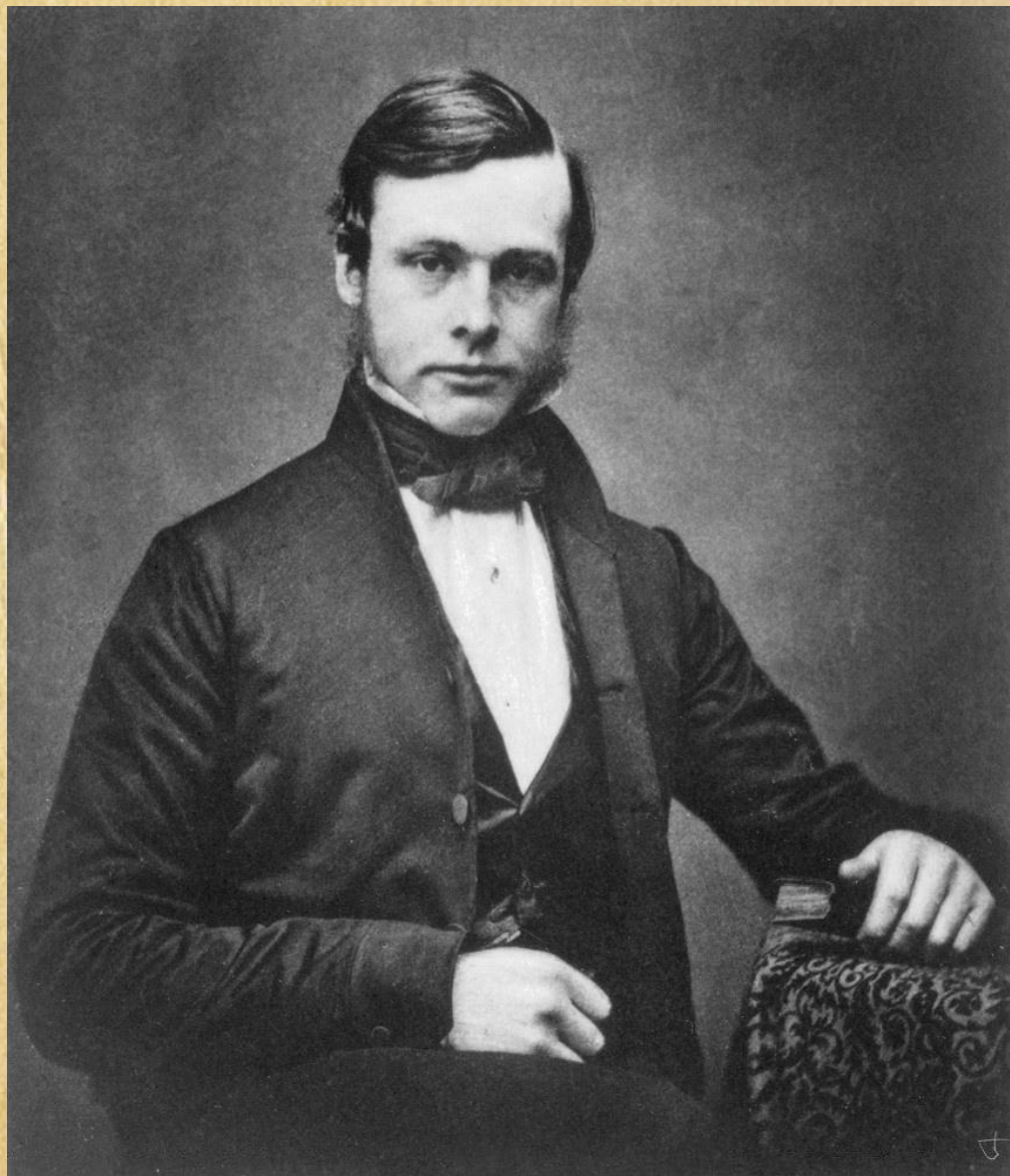


Joseph Lister

Surgeon and pioneer of
antiseptic medicine



Hello, my name is Joseph Lister and I was born on 5th April 1827. I was born in England, but for most of my life I worked as a surgeon at a hospital in Glasgow. I love medicine, and I love learning about medicine: I even spent three months during my honeymoon touring around different medical centres (hospitals and universities) in Germany and France. Luckily my wife was interested in medicine too, so she didn't mind too much! In fact, she later became my lab partner; she's a very good scientist too.



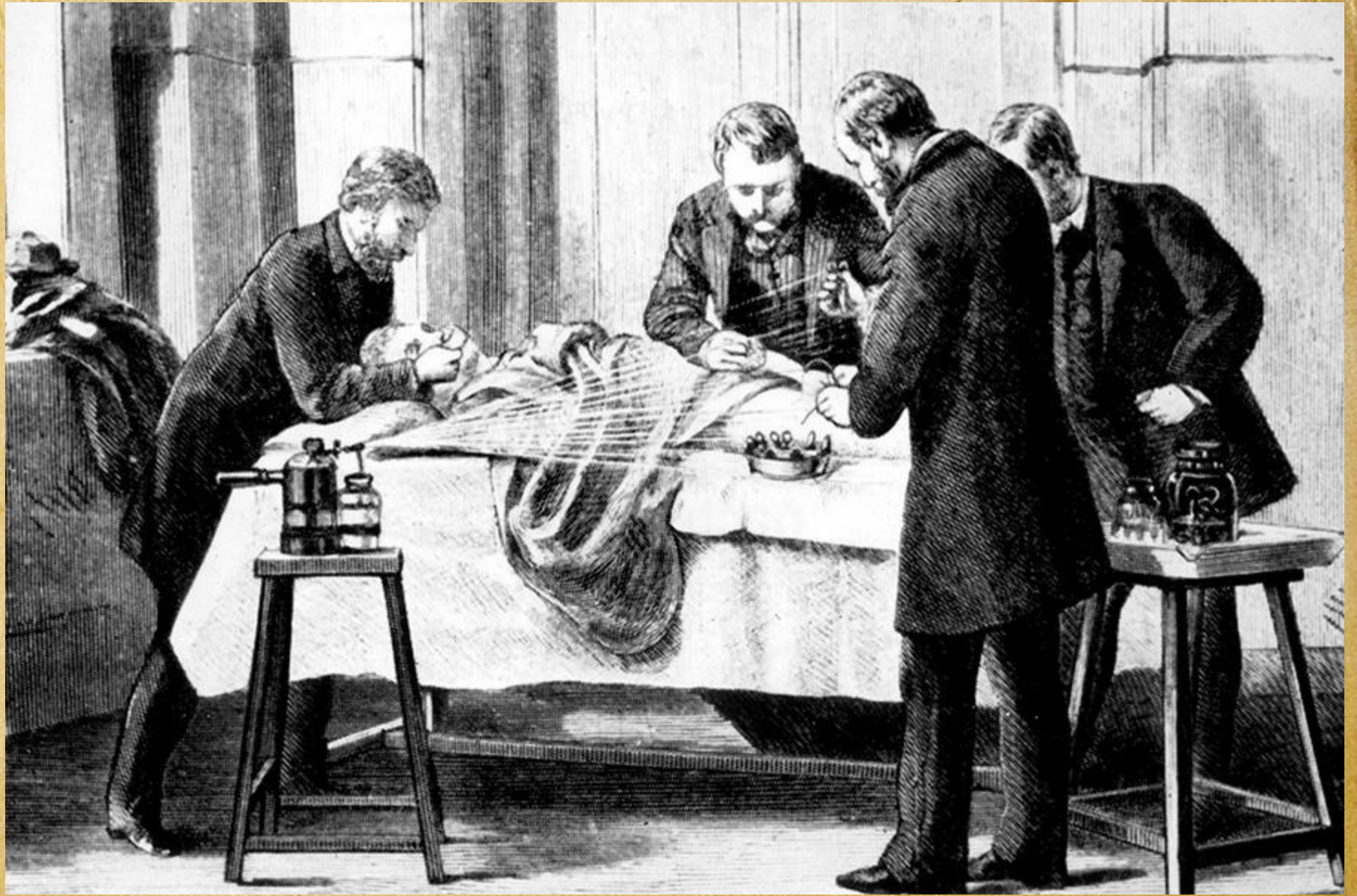
- I've always been interested in medicine, but I didn't enter the Royal College of Surgeons until I was 25. That's what you have to join if you want to be a surgeon, like I did. Surgery when I started practicing was very different to how it is now: we never bothered washing wounds, and we didn't even have to wash our hands before we operated on patients! Of course, all that's changed now. Thanks to me, that is.

- When I first became a surgeon, my fellow surgeons didn't realise that infections got into wounds because of bad micro-organisms getting into the body and infecting it; they thought they were caused by "miasmas", a kind of bad, rotting smell that hung in the air. A nurse called Florence Nightingale, who'd looked after a lot of wounded soldiers during the Crimean War, was saying that fresh air was good for healing wounds, but no one believed her. They all thought that air was letting the infection in!

- I wasn't sure about all of that, so I did some experiments and discovered that certain microorganisms were causing a very nasty disease called gangrene, which got into wounds and often poisoned the patients. I knew that getting rid of gangrene would save many people's lives, so I had to find a way of getting rid of it! Louis Pasteur had done a lot of research on how to get rid of these bad microorganisms that caused illness and disease, and he suggested three ways of doing it: heat them up, filter them out, or expose them to certain chemicals. I knew that when these microorganisms are in the human body, you can't heat them up or filter them out, so I thought that treating them with certain chemicals might help kill them instead.

- I experimented with a few different chemicals, and one that seemed to work particularly well was something called carbolic acid, which was used to take away the horrible smell of sewage when it was going through pipes. I started spraying surgical instruments, dressings and bandages and surgical cuts (incisions) with a diluted version of it, and found that gangrene was much less likely to develop when it was used.





- They found that many lives were saved by this technique - and it meant that I had proven that bad micro-organisms, that were on the surgeons' hands or on their instruments, were responsible for spreading disease, and not bad smells or miasmas in the air. I got a lot of praise for that discovery - you might have heard of the mouthwash Listerine - you still have it today - well, that was named after me. And in 1901, two days before the new king, Edward VII was due to be crowned, when he contracted a nasty dose of appendicitis and needed to have his appendix taken out, the royal surgeons didn't dare operate without asking me for my advice on it first! Of all the things that have happened to me though, I'm most proud of the number of lives I managed to save by proving that disinfecting wounds and instruments in hospitals can stop infections from developing.

