

## Knowledge Organiser: Medicine 1700 - 1900

Key dates	
1796	Edward Jenner successfully tests out his smallpox vaccine.
1847	James Simpson identifies anaesthetic qualities of chloroform.
1848	First Public Health Act (ineffective).
1852	Smallpox vaccination made compulsory.
1854	Snow proved cholera spread through water.
1859	Nightingale wrote her book <i>Notes on Nursing</i> .
1861	Pasteur publishes his germ theory.
1865	Lister first uses Carbolic acid as an antiseptic.
1875	Second Public Health Act (effective)
1881	Pasteur develops anthrax vaccine.
1882	Koch first stains microbes.

Key characters	
Edward Jenner	Pioneered the <b>smallpox vaccine</b> .
Louis Pasteur	Disproved spontaneous generation with his <b>germ theory</b> ; developed vaccines for anthrax and rabies; pioneered pasteurisation.
Henry Bastian	Influential doctor in Britain who believed in <b>spontaneous generation</b> .
Robert Koch	Used Pasteur's germ theory to identify which germs caused <b>anthrax</b> . He developed a way of dying germs to find out which diseases they were responsible for.
Florence Nightingale	Helped establish <b>nursing</b> as a respectable profession for women; improved the sanitation and standard of care at military hospitals in the <b>Crimea</b> (became known as "the lady with the lamp"); founded school of nursing at St Thomas hospital.
Joseph Lister	British surgeon who pioneered <b>antiseptic surgery</b> using Carbolic Acid spray.
Robert Liston	Surgeon known for the speed of his <b>amputations</b> . Once accidentally amputated a man's testicles.
James Simpson	Discovered the anaesthetic properties of <b>chloroform</b> .
John Snow	Proved that <b>cholera</b> is spread by water, not miasma. Made chloroform and ether safer to use by working out correct dosage. Administered chloroform to queen Victoria at the birth of her last 2 children.

Key terminology	
<b>Amputation</b>	The <b>removal of a limb</b> by surgery.
<b>Anaesthetic</b>	A drug or drugs given to produce <b>unconsciousness</b> before and during surgery.
<b>Antiseptics</b>	Chemicals used to <b>destroy bacteria</b> and prevent infection.
<b>Chloroform</b>	A liquid whose vapour acts as an <b>anaesthetic</b> and produces unconsciousness.
<b>Diarrhoea</b>	A symptom of a disease (such as cholera); frequent, <b>fluid bowel movements</b> .
<b>The Enlightenment</b>	A European intellectual movement of the 18th century emphasising <b>reason</b> and <b>science</b> over religion and tradition; also known as the "Age of Reason".
<b>Germ theory</b>	The theory that <b>germs cause disease</b> , often by infection through the air.
<b>Inoculation</b>	Putting a <b>low dose</b> of a disease into the body to help it fight against a more serious one.
<b>Laissez-faire</b>	Belief that <b>governments</b> should <b>not interfere</b> in people's lives.
<b>Microbe</b>	A <b>living organism</b> that is too small to see without a microscope.
<b>Pasteurisation</b>	A way of <b>preserving</b> food or drink by <b>heating</b> to 55 degrees C and thus killing the bacteria.
<b>Public Health Act (1875)</b>	Government <b>legislation</b> that made it compulsory for city authorities to dispose of <b>sewage</b> , build public toilets and provide <b>clean water</b> . New houses had to be built to better quality and food sold in shops had to be checked for safety.
<b>Spontaneous generation</b>	The theory that <b>decaying matter</b> turns into germs.
<b>Vaccination</b>	<b>Injection</b> into the body of <b>weakened organisms</b> to give the body <b>resistance</b> . Comes from the word <i>vacca</i> which means cow in Latin. This was because the first vaccination involved injecting cow pox samples into people to develop immunity against small pox.

## **SUMMARY OF THE PERIOD**

Significant changes in medicine occur in this period. By 1900, there was a better understanding of how germs cause disease and work was being done to develop new vaccines and treatments. The government, which started out with a laissez-faire attitude to public health, began to become more involved, with compulsory small pox vaccination and the Public Health Act of 1875. Hospitals developed into clean, modern institutions thanks to the work of Florence Nightingale and more surgery became possible through the use of anaesthetics. Fewer people died as a result of surgery because of Joseph Lister's pioneering work with antiseptics.