

SUBJECT: History

UNIT: Health through Time: 19th Century A Revolution in Medicine



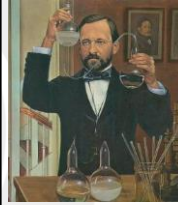
Key dates

1832 Edwin Chadwick Public Health Report
1837 Cholera outbreak
1847 Simpson discovers chloroform as anaesthetic
1848 First Public Health Act
1853 Queen Victoria uses chloroform
1854 Dr Snow discovers cause of cholera
1858 Great stink and Bazalgette starts building sewers
1861 Germ theory
1867 Lister uses carbolic acid as antiseptic
1875 Second Public Health Act
1909 Magic Bullet

Treatment of disease

1861 - Louis Pasteur discovered Germ Theory proving the theory of Spontaneous Generation wrong but it was not accepted immediately. Pasteur and his team created a vaccine for rabies and anthrax. This work was accepted in Britain due to John Tyndall and William Cheyne.

Robert Koch proved that specific bacteria caused specific diseases. In 1876 he discovered the microbe responsible for anthrax, 1884 - cholera and 1882 - tuberculosis. He also discovered stains to dye microbes under a microscope. **Paul Ehrlich** (Koch's assistant) found chemicals that would not only stain but kill specific types of bacteria. In 1909 he discovered a chemical cure for syphilis. These cures became known as '**magic bullets**'.



Improvements in surgery

Problems of surgery were **BIP blood loss, infection, pain**.

Anaesthetics:

Nitrous oxide and ether was also used but was difficult to inhale though and was also flammable.

Chloroform discovered by **James Simpson**. Surgeons could now take more time over operations but this had initial problems such as dosage. Hannah Greener died of an overdose during a toenail operation in 1848. In 1853 Queen Victoria used chloroform in childbirth making it more acceptable.

Antiseptics:

Joseph Lister had read about Germ Theory and applied it to the problem of infection. He used carbolic acid to stop the spread of germ spraying it on hands, wounds, equipment and in the room.

Public Health

Industrial Revolution led to a population explosion and a movement of people into towns. The government attitude was **laissez-faire** meaning they did not believe it was their job to deal with public health and living conditions

Back to back houses and lack of sanitation led to cholera (a waterborne disease) epidemics in 1837, 1838, 1848, 1853-5 and 1865-6.

In 1832 Edwin Chadwick published the '**Report on the Sanitary Condition of the Labouring Population**'.-identified problems in the towns and cities leading to **1848 Public Health Act**.

However this was voluntary and many councils did nothing.

In **1854 Dr John Snow discovered how Cholera spread**

Great Stink of 1858 where the sewage in the Thames led the government to leave the city. As a result Joseph Bazalgette was given the job of building the sewers under London. Once fully operational cholera never returned.

After working class men gained the vote in 1867 the government brought in more laws to improve people's lives. **The Second Public Health Act of 1875** was compulsory and made councils responsible for public health. They had to provide clean water, build sewers, keep the streets clean and light them. Laissez-faire was now at an end.