MEDICINE THROUGH TIME

96AD

Galen converts the **Theory of the Four Humours** into the **Theory of Opposites**. This states that the body has **four humours** and an **imbalance in one causes you to be ill** so the treatment should balance out the humours. I.e. If you have **too much blood use leeches** to take the blood

1100

Herbal Remedies are used to treat illness like foxglove as pain relief. 50% of **Bald's Leechbook** remedies would have worked

1376

1376 **John Ardene** is a war surgeon who creates an antiseptic and anaesthetic ointment whilst specialising in **fistula's** and arrow head removal

1440

1440 The Printing Press is invented making it much easier to spread ideas rather than monks just copying books out by hand

1543

1543 Vesalius challenges Galen by pointing out that the human jaw bone has one bone not two like Galen suggests. Wrote a book called The Fabric of the Human Body

1579

1579 A **French War surgeon Pare** experiments with **silk ligatures** rather than cauterisation (sealing blood vessels through heat) and develops the first ever **Prosthetic Hand.** Short term not very significant as he doesn't convince anyone. Longer term **significant as he challenges Galen**

1622

1622 **William Harvey challenges Galen** by mapping successfully all the human blood vessels and **how the heart pumps blood** around the body. **Discovered by dissection and published in a book**

1665

The Church enforces Galen's work and ideas. This benefits medicine as it eradicates 'quack' doctors but stops it from further progress by not allowing dissection and pressuring people who go against

1665 **Thomas Sydenham the 'English Hippocrates' encourages** people to be more scientific in their diagnosis

1665 **Charles II** believes he **can cure Scrofula** by applying the **'King's touch'**

1665 **Charles II sets up Royal Society**

1665 Plague hits London.

Causes similar to Black Death such as **God's punishments, miasma, cats**.

Government quarantines and stops mass gathering.

Treatments include **rubbing pigeons on buboes, flagellants and prayer**

1790

1790 **Lady Mary Montage** brings back **inoculation** to England. Approved by Royal Society

1802

1802 Edward Jenner observes that milkmaids who get cowpox do not get smallpox. Tests his theory on an 8 year old James Phipps.

Church and innoculators object

Government make vaccinations compulsory

Government give him 30,000

Can't explain why it works which limits significance

1847

In 1847 **James Simpson** tries to solve the first **barrier to surgery—pain.**

He **discovers chloroform by chance** and then travels and **spreads the information**.

1855

In 1848 **John Snow** researches why the Fit, Frail and Fearful die from chloroform and **develops the Chloroform Inhaler** to make it safer which **Queen Victoria** uses and endorses

Creates the 'Black Period of Surgery' where death rates increase as longer surgery leads to more death by infection and bloodloss

1861

LOUIS PASTEUR DISCOVERS GERM THEORY AND PROVES IT WITH HIS SWAN NECK FLASK

1855 Florence Nightingale's hospital death rates are reduced from 42% to 2%

Nightingale is wrongly credited with the achievement an a school of nursing is set up in her name

1865

Joseph Lister starts using carbolic acid in his surgery to stop infection in surgery

PASTEUR LINKS GERMS TO THE CAUSE OF DISEASE

Semmelweis is arrested for telling doctors to wash their hands

1870

1870 **Robert Koch stains bacteria** to begin to **identify microbes** that causes sickness

1875

1875 Public Health Act

Forces local authorities to take control of keeping the streets clean

1880

1880

Charles Chamberland, part of **Pasteur's team accidently discovers** that weakened bacteria give immunity. Pasteur names it **vaccination**

1899

1899—**The Boer War**

Shows how **unhealthy working towns** are with over **38%** of all applicants declared unfit . This is over **50% from cities like Liverpool** where people appear **physically smaller and weaker** than in the countryside.

1900—**Karl Landsteiner discovers blood groups solving the final barrier to surgery.**

1906

1906—Paul Ehrlich who sued to work for Koch discovers the first ever antibiotic which he calls a **Magic Bullet**

1911

1911—National Insurance Act

Gives free medical care to workers

1908—Pension's Act

1906—Free School Meals Act

1906—11 Liberal Reforms

These are the first major government intervention in public health

1914

1914 WWI Breaks out

Operating in unhygienic conditions surgery is shown to be unsuccessful unless in aseptic environments or without solving it further

1916—The first ever X-ray is used

1917 Battle of Cambrai

Rous & Turner add sodium citrate to blood which means that blood can be stored and aids transfusions

Gillies develops plastic surgery by using the tube pedicle. Lots of patients commit suicide after

1918

Publishes his findings and moves on

Given some money by the government but not as much as he wants

1929

1929

Alexander Fleming discovers by accident that a mould **(penicillin)** has killed the bacteria in a petri dish

1932

1932

Domagk's daughter pricks her little finger which forces him to test the **second magic bullet Prontosil** on her. It works

1941

War prevents the British government from investing anymore

They then get a **small government grant** and develop a solubale (oral) drug which starts to cure Albert Alexander

1941 Florey and Chain get a university grant to try and develop **Fleming's work**

1945

1945

USA successfully developed **penicillin** which **solves infection in the battlefield and is used as a frontline drug today**

1945

Labour government elected on platform of home for heroes and decides to create a National Health Service (NHS) which they believe will be cheaper if they focus on prevention

1948

1948

The World Health Organisation (WHO) is set up to tackle global epidemics

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Bevan creates the NHS following the **Beveridge report in 1942 despite protests by doctors**

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Having stolen **Franklin's** photograph **Watson and Crick** are able to create the structure of **DNA** which helps **identify and cure genetic hereditary illness.** Watson and Crick alone are awarded Nobel prize

1980

1980s

AIDS becomes a major global epidemic but the WHO deals which it much more effectively than the **Black Death or Plague** and so death rates remain relatively small

Today

Today

Complex surgery like brain and micro using top end technology

Today

Major focus on prevention of illness like vaccinations and healthy schools

Today

More understanding about mental illness and support groups

KEY

RELIGION		CHANCE		TECHNOLOGY		INDIVIDUAL BRILLIANCE	
WAR		EDUCATION		GOVERNMENT		COMMUNICATION	

MEDICINE THROUGH TIME

96AD | 1100 | 1376 | 1440 | 1543 | 1579 | 1622 | 1665 | 1790 | 1802 | 1847 | 1855 | 1861 | 1865 | 1870 | 1875 | 1880 | 1899 | 1906 | 1911 | 1914 | 1918 | 1929 | 1932 | 1941 | 1945 | 1948 | 1962 | 1980 | Today

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