

Key people

Politicians

David Lloyd George
Prime Minister responsible for the Liberal Reforms 1906-1911

William Beveridge
Wrote the 1942 Beveridge Report that would become the starting point for the Welfare State. 600,000 copies of the report were sold.

Aneurin (Nye) Bevan
Appalled by east end poverty, he set up a 'Ragged School' to train boys and girls to help them find work when they left school.

Social reformers

Charles Booth
Surveyed London and published *Life and Labour of the People* in 1889. Found 35% of London's population was living in poverty. Findings reported to the Government.

Seebom Rowntree
Did the same as Booth but in York. Published *Poverty, A study in Town Life* in 1901. 146,000 citizens were interviewed. Found that half the working class people of York lived in Poverty.

Maud Pember-Reeves
Published *Round about a pound a week* in 1913. Wanted to prove the working class wasted money on drink. Instead she found workers struggled to survive on the average wage of £1 a week.

Scientists

Alexander Fleming
Accidentally discovered Penicillin in 1928 by leaving an experiment uncovered but did not realise the true potential of it.

Howard Florey
Developed the use of Penicillin as a mass produced antibiotic. This work was spurred on by the Second World War and used American industry to produce.

Ernst Chain
Developed the use of Penicillin as a mass produced antibiotic. This work was spurred on by the Second World War and used American industry to produce.

All three men mentioned above shared the Nobel Prize for their work. They started a movement that has since created countless antibiotics.

Key words

Alternative medicine
Yoga, homeopathy, acupuncture. No chemical intervention given. All about balance.

War
WW1 and WW2 had a huge impact on medical development e.g. plastic surgery and transfusions.

National Health Service
Government run healthcare for all people.

Skin graft
Taking skin from one area of the body to cover another.

X-Ray
Light rays used to locate items within the body e.g. bullets. Used in WW1

Transplant
Replacing a damaged organ with one from another body.

Radiotherapy
Treatment of disease, especially cancer, using radiation.

Chemotherapy
Treatment of disease by the use of chemical substances.

Superbugs
Antibiotic resistant bacteria e.g. MRSA

Gene therapy
Replace defective genes in DNA with normal ones

Dialysis
Technology that replaces the kidneys

Polio
Contagious disease. Causes paralysis or death. FDR had it. (See USA unit)

Penicillin
First mass produced antibiotic.

Magic bullets
Chemical that kills a particular bacteria, nothing else.

Electron microscope
Developed 1931. Allowed close examination of cells.

DNA
Deoxyribonucleic acid – molecule that genes are made of

Shell shock
Psychological condition caused by exposure to war. Today called PTSD

Transfusion
Transferring donated blood, blood products, or other fluid into the circulatory system of a person

Key events

Treatments
During the 20th Century British companies such as Beechams became worldwide businesses, manufacturing drugs. They:

- Invested in research and development and did careful research to look for better treatments
- Used industrial technologies to make huge quantities of each new remedy.

 For example, Aspirin, from willow bark, had been used for centuries but nobody knew why it worked. Scientists were able to find out which chemical it was that actually worked and then manufacture it. In the 1970s it was discovered it thinned the blood and we now use it to reduce the risk of heart attack. However, not all treatment was successful. For example, Thalidomide was a 'safe' sleeping tablet given to pregnant women to reduce morning sickness. It hadn't been tested and led to children being born without limbs. It was banned in 1961 but by then 10,000 children were already affected.

Alternative treatments
This was a growing area. Some people think that medical drugs are damaging and would prefer to use more traditional medical ideas. Very similar to the Four Humors. A good example is Acupuncture that has been used in China for 4000 years.

War
The twentieth century had two world wars. These created huge medical advancements.
World War One saw:

- Plastic Surgery pioneered by Harold Gillies
- Broken bones mended with the Army Leg Splint (traction)
- Blood transfusions led by Landsteiner who worked on blood types and then Hustin who discovered how to store blood by using Sodium Citrate making blood banks possible
- X-Rays were used to their full potential.

World War Two saw:

- Further plastic surgery developments led by McIndoe
- Heart surgery progressing led by Harken who was able to operate on a beating heart
- Blood banks ready to use in anticipation of injuries
- Government involvement in the nation's food supply
- Drugs such as Penicillin mass produced

Public Health
The wars highlighted a need to intervene in the general health of the public. This was started with the Liberal Reforms (1906-11) but there was more to do. In 1942 the Beveridge report found that huge swathes of the population still lived in a condition that made Britain backward in comparison to other countries. By 1948 the largest scale government action was underway. The Welfare state catered for education, benefits and crucially a National Health Service. This all still exists today and is one of the most comprehensive systems in the world. The downside to this is the spiraling government spending that is required. £129 billion was spent in 2018/19

