SUBJECT: History

UNIT: Health through Time: Renaissance

SANDHILL VIEW
EST. 1953
ACHIEVE · ASPIRE · ENJOY

FACTORS

Government

Chance

Religion

War

Individuals

Science& technology

Communication

Renaissance- period in history that flourished in the late 1400s. People did not just accept what they were told but began to **ask questions**, find evidence themselves, and come up with **new ideas.** Many people said that this was a **'rebirth'** of learning.
New lands discovered- new medicines and treatments found. **Technology/communication**- printing press meant new ideas spread quickly. Gunpowder meant new injuries at war. **New art-** better artist techniques meant drawings of the anatomy were more realistic

Andreas Vesalius 16th century

First highly illustrated book on human anatomy **'The Fabric of the Human Body'** in 1543. Used printing press to spread ideas
Disproved Galen's teaching. Found human had one jaw bone not two. Found heart does not have invisible holes. Dissected humans not animals- steal bodies from gallows.

Short term impact: Criticised for saying Galen wrong and had to leave job. Taken more seriously when became Emperor Charles V doctor**.** Overturned ideas about Galen's work e.g. No holes in human heart**.** Encouraged others to question Galen**.** Dissection was important**. Long term impact:** Harvey built on ideas about the heart. Dissection still important part of medicine today

Ambroise Pare 16th century

Paré was a battlefield surgeon. Made discovery about gunshot wounds by chance at war- In battle, he ran out of boiling oil which was used for treating gunshot wounds. Made an old Roman ointment of roses , turpentine and egg yolk. **Amputations-** Paré develops ligatures to seal wounds instead of using a cauterising iron. Developed artificial limbs

Short term impact: Write findings on 'Notes on Surgery' and becomes the King's surgeon Cauterising wounds still used as quicker. Tying ligatures led to infection. Many did not listen to his ideas as he was a low status surgeon**. Long term impact:** Over time his ideas helped improve surgical techniques like amputations. Ideas accepted once became surgeon to King of France. Hunter proves gunshot wounds not poisonous. Artificial limbs

William Harvey 16/17th century

Discovers the circulation of the blood, identifies the difference between arteries and veins (disproves Galen)
Wrote "An Anatomical Account of the Motion of the Heart and Blood".

Short term impact: Discoveries taken more seriously when microscope developed. Bloodletting continued – unsure what else to do. Takes 50 years for his ideas to be taught in university as challenged Galen. **Long term impact**: Blood groups are discovered in 1901, which makes blood transfusions successful. Today understanding blood useful for diagnosis and treatment

John Hunter 18th century

Radical approach: He experimented on himself in 1767. e.g. Injected himself with gonorrhoea to prove gonorrhoea and syphilis different diseases to find a cure**. Improved surgery:** Dissections led him to think that if blood flow was restricted above the tumour or an aneurysm, then it would encourage new blood vessels and bypass the damaged area. Scientific method- first tested on animals and then surgery on a patient. His idea worked

Short term impact: Set up Company of Surgeons and trained hundreds of surgeons in scientific approach. Books- widely read and major contribution to surgical knowledge. From dissecting bodies he was able to make discoveries about disease, infections, cancer and circulation of blood. Put to rest the idea that gunshot wounds were poisonous
Long term impact: Ehrlich was able to make treatment for syphilis (Magic Bullet). **Royal College of Surgeons** established set standards for surgeons and qualifications.

Edward Jenner 18th century

Doctor who discovered the first vaccination. Made link that people with cowpox did not get smallpox and wanted alternative to inoculation. Tested on James Phipps- gave him small dose of cow pox, then small pox. He did not get ill.

Short term impact: Discovered first ever vaccination for smallpox. Negative reaction- people thought they would turn into cows, doctors against because people died from overdose or infection.

Long term impact: 1853 Government make smallpox vaccine compulsory. Further vaccinations discovered by Pasteur and Koch in 19th century. Small pox eradicated in 1980s

Disease: Beliefs and treatments: Very little progress. Beliefs continued based around Four Humours, miasma and superstition. **Treatments:** bloodletting by barber surgeons, balancing humours, praying, Quacks sold potions and 'medicines'. Wise women gave herbal remedies.

Hospitals : Started to cure/treat patients. Treatments still based upon Four Humours though. Funded by private donors rather than controlled by Church. Still religious influence- Christians donated funds to build hospitals. Education- schools. university hospitals where doctors trained. Different wards for patients. Specialist hospitals e.g. Foundling for children, Lock hospitals for STIs. Between 1720-1750 5 new general hospitals were added to London and 9 more throughout the country. By 1800, 20,000 patients were handled a year compared to only 470 in 1400.

Great Plague 1665

Causes: Beliefs- People still believed it was a punishment from God for their sins. Some people blamed the movement of the planets. Some people blamed miasma . Actual- again the fleas that lived on rats, which were attracted to the rubbish in poor parts of the city. Once the rat was dead the fleas would look for a human host. **Treatments** (better understanding of contagion): Continued with bloodletting, smoke to keep miasma away, vinegar on sponge, rich could move out to the countryside (like King Charles II did), mayors and councils ordered women searchers to examine sick and note where they were, quarantine, bodies brought out at night, home owners sweep the streets, animals not allowed in streets, entertainment like plays and large crowds banned. **Impact:** 100,000 people in London (1/4 population) were killed. Rats developed a greater resistance to the disease so fleas no longer needed to jump onto human hosts.