



**KEEP  
CALM  
AND  
STUDY  
HISTORY**

# Health & the People Revision Booklet

This is the revision booklet for Paper Two on Health & the People.

Name: \_\_\_\_\_

Class Teacher: \_\_\_\_\_

## Medieval Medicine

In the Middle Ages (1000-1500AD), doctors lacked scientific knowledge. Religion was very important in the Middle Ages and people believed disease was caused by God as a punishment for sinful behaviour. A popular treatment was praying to God.

Doctors based their ideas on two Greek doctors called Hippocrates and Galen. Hippocrates invented the Theory of Four Humours, which said the body consisted of four humours:

- Black Bile
- Yellow Bile
- Phlegm
- Blood

The Four Humours had to be balanced for good health. Bleeding was used to prevent or treat illness, either through opening a vein or allowing leeches to suck a patient's blood. Doctors used urine charts to diagnose illness.

Galen learnt about anatomy by dissecting animals. Dissecting humans was banned by the Church. As a result he made errors, however his ideas were accepted because the Church banned people questioning his work.

A surgery that doctors performed in the Middle Ages was trepanning. This involved drilling a hole in the skull to let out demons. Warfare helped surgeons improve their skills, for example quicker amputations. New tools invented included the 'arrow cup' which removed an arrow-head from the body without causing damage.

Islamic medicine was much more advanced than in Europe. Islamic doctors wrote medical encyclopaedias and their hospitals trained doctors and treated patients.

## How to answer the questions

(after you've read through and annotated)

1) *How useful is source A to a historian studying [factor]..? (8)*

*Source A is useful for studying [factor] as it shows/says...* [item of content]. *I know that at this time...* [explain your knowledge of the content].

*Source A is also useful because it shows...* [do the same thing again; content and knowledge].

*The provenance is also useful because...* [explain why the author, time and audience may make it useful].

2) *Explain the significance of [factor] to [event]... (8)*

*One way in which [factor] was significant was...*

*Another significant thing was...*

*Finally [factor] was also significant because...*

[For these three you must give a way that the factor was important and explain the effects].

3) *Compare X with Y... In what ways were they similar? (8)*

*One way in which they are different is...*

*Another way that they are different is...*

*A final difference is that...*

[This question requires you to explain three ways in which X and Y are similar. You must give specific details about these similarities.

You will be asked for Similarities or Differences, but not both.

4) *Has X affected Event Y? (16 + 4 SPaG)*

*X affected Y by...* [explain your knowledge of the topic and how the given factor had an effect].

*Whereas A also had an effect...* [explain your knowledge of the topic and how a second factor had an effect].

*Another factor that affected Y is...* [explain a third factor].

*I would judge that [a factor] was more significant to Y because...* [your opinion goes here and should compare the given factors]

## Checklist

Medieval Medicine	
Public Health in Middle Ages	
Black Death	
Vesalius, Pare and Harvey	
Treatments in the 1600's and 1700's	
The Great Plague of 1665	
Hospitals in the 1700's	
Edward Jenner and Vaccination	
Louis Pasteur's Germ Theory	
Anaesthetics	
Antiseptics	
Public Health in the 1800's	
John Snow and Cholera	
Government Intervention	
Penicillin	
Alternative Medicine	
Impact of War and Technology	
Booth, Rowntree and Liberals	
Beveridge and the NHS	

## Public Health in the Middle Ages

### Public Health in towns

This was very poor. The King and towns did not get involved in ensuring people were healthy, it was left up to individuals to sort out. Most towns had poor sanitation with dirty drinking water. Sewers ran open in the streets and there was human waste and animals wandered the streets producing their own waste. The waste from the privy (toilet) fell into a cesspit where it was collected by the gong farmer. Most people did not wash regularly. Hospitals were linked to monasteries, they had very few doctors and provided rest and care rather than surgery.

### Public Health in monasteries

Monasteries were much cleaner. Monks could read so they were informed about public health. Monks had a fresh water supply and stored water in wells or reservoirs. They filtered and purified water. Monks also bathed regularly and privies were separated from kitchens.



## The Black Death

The Black Death swept through England in 1348, killing nearly half of Europe's population. There were two types:

- Bubonic Plague— cause by fleas on rats
- Pneumonic Plague— spread by coughing/sneezing

Symptoms of the plague included fever, boils, spasms and vomiting.

### What did people at the time think caused the Black Death?

People had supernatural explanations, they blamed it on:

- God punishing them for being sinful
- Astrology, the movement of the planets
- Jews were blamed for poisoning the wells
- Bad smells (also known as miasma)

### Cures for the Black Death

As people did not know the cause of the Black Death, cures were ineffective. These included:

- Bloodletting
- Smelling fresh flowers
- Having a bath in urine
- Praying to God
- Tying a chicken to a boil

Impact of the Black Death— Many died of starvation as there were too few people to harvest food. Inflation rose and food prices quadrupled.

## The Impact of War and Technology on Surgery

In WW2, heart surgery progressed. American army surgeon Dwight Harken cut into beating hearts and used his bare hands to remove shrapnel. Penicillin was used successfully in WW2, and diets improved with rationing as people were encouraged to grow vegetables, poor people received meat in their ration and sugar was cut. Evacuees from the towns were sent to the countryside experienced a cleaner and healthier lifestyle. Plastic surgery was further developed by Gillies' cousin Archibald McIndoe.

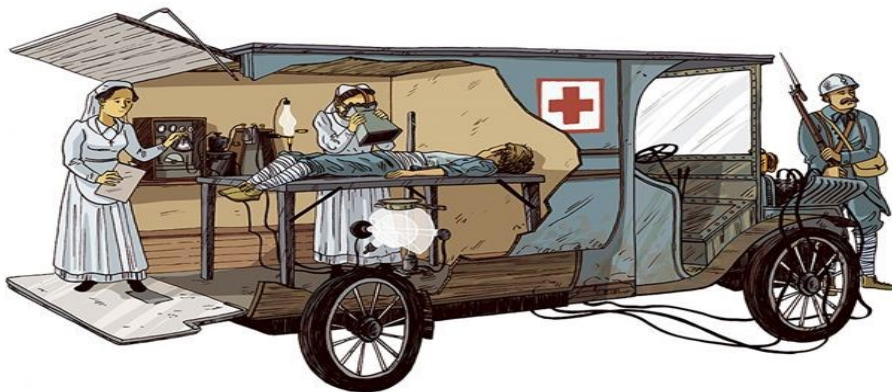
Many more technological breakthroughs have been discovered in the 20th Century, including:

- Improved anaesthetics allow patients to be unconscious for longer
- Better antiseptics increase the success rate of difficult operations
- Keyhole surgery using small fibre-optic cameras linked to computers meant surgeons can perform operations through very small cuts
- Radiation therapy has been used on cancer patients to shrink tumours and kill cancer cells
- Using lasers in surgery

## The Impact of War and Technology on Surgery

World War One killed over 10 million people, and many more injured. New and deadly weapons such as shells and gas caused terrible injuries. There were a great number of medical advances in WW1:

- X-Rays. Mobile X-Ray machines were used near the trenches to find out in the soldier's body bullets or pieces of shrapnel were without having to cut them open
- Plastic Surgery— Many soldiers were disfigured by shells and shrapnel. A London doctor names Harold Gillies set up a special unit to transplant skin and treat man suffering facial wounds. He and his colleagues had treated over 5000 men by 1921
- Blood transfusions— In 1900 Karl Landsteiner discovered blood groups, which helped doctors work out a transfusion could only work if the donor's blood group matched the receiver's. To make sure blood didn't clot when stored, in 1914 it was found adding glucose and sodium citrate to the blood stopped it clotting
- Broken bones— New techniques were developed to repair broken bones, for example the Army Leg Splint which helped bones knit together





## Renaissance: Vesalius, Pare and Harvey

The Renaissance began in around 1500AD. It was a time when medical ideas began to make progress, as well as art, literature and inventions. The three most important Renaissance individuals are Vesalius, Pare and Harvey.

### Vesalius

Vesalius dissected humans rather than animals. This gave him knowledge of human anatomy and proved Galen was wrong in a number of ways. He did dissections at his lectures so students could learn about the body.

Vesalius published his beautiful anatomical drawings in books. The books were sent to England, which influence and inspired surgeons.



## Anaesthetics

Pain relief had been used in operations since the Middle Ages, the most popular being opium and alcohol (which made the heart beat quicker and caused greater blood loss).

New anaesthetics to numb pain were developed in the 1700's and 1800's:

### Nitrous Oxide

More commonly known as 'laughing gas', this was developed by Humphrey Davy in 1795. He describe how the gas made him feel giddy and relaxed, but was used as a fairground novelty rather than in surgery.

### Ether

Developed by American dentist William Clark, this was used first in a tooth extraction and then in a leg amputation. Although effective, it had its drawbacks, as it caused vomiting and was highly flammable.

### Chloroform

This was discovered by a Scottish doctor James Simpson in 1847. He and his friends were testing substances in his living room when someone knocked over a bottle of chloroform, which sent them all to sleep!

Simpson used chloroform in operations and encouraged its use. However, there were some objections. Some surgeons thought patients should feel pain. Some died by being given too much chloroform, they did not know different sized people needed different doses. A famous example is Hannah Greener who died during an operation to remove a toenail.

These objections were overcome when Queen Victoria began to use chloroform in childbirth, which helped popularise its use.

## Louis Pasteur's Germ Theory

In the 1700's and 1800's, people believed that disease was caused by miasma (bad smells) or spontaneous generation, the idea that microbes appeared by magic.

Louis Pasteur was a scientist who challenged this idea. He was asked by a brewery to investigate why beer went sour or off. He designed an experiment to show that if air was kept out of a flask, the liquid inside it would not go off. This proved that germs were airborne.

The Germ Theory is simply that germs causes diseases. The germs could be found in places they could reach easily, infected things and turned them bad.

He also found that heating liquids could kill all the germs (pasteurisation)

## Robert Koch

Koch was a German scientist who developed Pasteur's theory. His main idea was that specific germs cause specific diseases. His other work included:

- Identifying the germs that cause anthrax, cholera and tuberculosis
- Grew microbes on seaweed, which encouraged them to grow
- Used dyes to stain microbes so they could be identified under a microscope
- Used photography to prove his findings

## Renaissance: Vesalius, Pare and Harvey

### Pare

Pare was a French Army surgeon. He experimented on wounded soldiers to discover better ways to prevent bleeding.

Hot oil had been used to seal wounds, which was very painful. Pare ran out of oil so one day made a cream made of rose oil, egg yolk and turpentine which worked much better.

To prevent bleeding after amputation, Pare used ligatures to tie wounds instead of cauterising them with a hot iron.

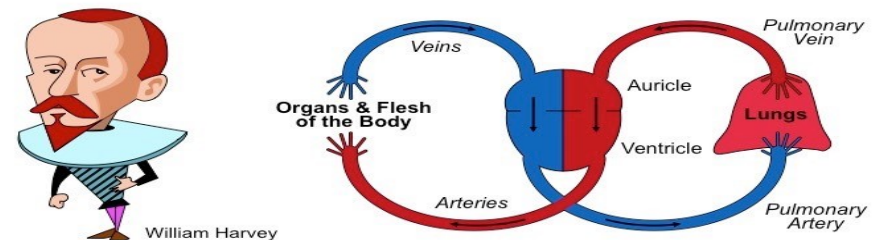
Pare's work became famous in Britain, however not all surgeons accepted them.

### Harvey

Harvey was a doctor in England. He was a doctor to King Charles I. Harvey discovered that veins in the body had valves and that blood was pumped around the body by the heart.

Harvey challenged Galen's idea that it was the liver that produced blood. Many of Galen's supporters rejected Harvey's ideas because of this.

Harvey's ideas have influenced medicine in the present day, as blood tests, blood transfusions and heart transplants would not work without his idea of blood circulation.



## Treatments in the 1600s and 1700s

Although the Renaissance saw advances in medical knowledge, getting treatment depended on what they could afford. You could get medical treatment from:

- Barber-surgeons– poorly trained, they could give you a haircut and small operations such as pulling teeth or bloodletting
- Apothecaries– sold medicine or potions
- Wise women– treatments that used herbs and relied on superstitions
- Quacks– travelling salesmen who sold medicines

Bloodletting was still a popular treatment. Ordinary people began to use books with herbal remedies, for example Nicholas Culpepper's 'The Complete Herbal'.

Explorers on voyages of discovery brought back new natural medicine, for example:

- The bark from the Cinchona tree from South America was used to treat malaria
- Opium from Turkey was used as an anaesthetic
- Tobacco from North America, wrongly thought to cure the plague



## Edward Jenner and Vaccination

Smallpox is a terrible disease that causes blindness, scarring and frequently death. In the 1700's inoculation was widely used to prevent smallpox. This involved giving a low dose of smallpox to people to make them immune. However, there were many problems with inoculation, not least religious objections and that sometimes people were given a dose of smallpox which killed them.

Edward Jenner was a surgeon who noticed that milkmaids who caught the disease cowpox did not get smallpox. To test the theory that cowpox gives you smallpox immunity, he gave cowpox to an 8 year old boy called James Phipps. Phipps was then given a smallpox inoculation and he didn't get the disease, he was immune.

Jenner further tested his vaccine on 16 other people and used this to prove cowpox protected humans from smallpox.

Although many people disagreed with vaccination, it was widely used and smallpox was eradicated in 1980.





## Hospitals in the 1700's

The Church's role in hospitals reduced as many became funded by rich people through donations. In these hospitals not only were the sick cared for, but the doctors of the future received training. Individual wards were developed for different types of disease.

Doctors would see poor people for free, and would earn money from seeing rich private patients.

However, some aspects of hospitals were still old-fashioned, for example nurses were still untrained and many doctors still based their advice based on the four humours,

Thomas Coram's Foundling Hospital was opened in 1741 to support and educate vulnerable children and orphans until the age of 15.

## John Hunter

John Hunter was a skilled British surgeon who encouraged investigation and experimentation:

- He trained many British surgeons who were inspired by him, including Edward Jenner
- He encouraged human dissection to understand anatomy
- He told surgeons to trust the body's natural wound-healing process
- He wrote many scientific books which influenced others, for example a book on dentistry

## The Great Plague of 1665

The Great Plague killed around 100,000 people in London. Like the Black Death, people still believed the Plague of 1665 was caused by God. People still blamed the planets and miasma (poisonous air).

Cures were similar to those in the Black Death, for example using leeches or bloodletting, praying to God or smelling fresh flowers.

However, there was a more organised approach to dealing with the plague than the Black Death. For example, Plague doctors were hired by towns who wore beaks. Watchmen were employed to stop people entering and leaving infected houses. People were locked up in their houses who had the plague, and their door was painted with a red cross. Also, some people began to observe that death rates were higher in poorer, dirtier places.

