

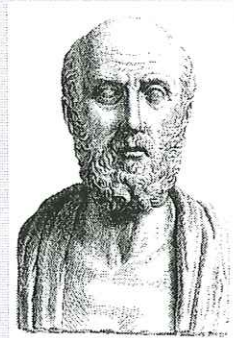
Theme 1:

Medicine in the Middle Ages, c.1250-1500



Background:

- Much knowledge from the Roman Empire had been lost during the **Dark Ages** (c.410-1066).
- Most people at this time worked in agriculture and few could read.
- **Catholicism** was the religion of England and the Church had a major influence over everyday life. Everyone attended church regularly and paid a **tithe** (like a tax) to the Church.
- There was little scientific thought or curiosity - instead people looked to the works of **Classical** thinkers **Hippocrates** (Ancient Greece) and **Galen** (Ancient Rome).



Ideas about Causes of Disease

- Religious Explanations

Because there was no formal education, ordinary people learnt from the Church. The Church taught that disease was a **punishment from God** for those who had committed a **sin**, or a test of faith from the Devil. Because people were taught that God controlled every aspect of the world, it was **easy to believe** that he sent illness too.

- Astrology

People believed that **astrology (the alignment of the stars and planets)** also had an influence on disease. During diagnosis, physicians would consider star charts, when a patient was born, and when they fell ill.

The Church traditionally disliked the use of astrology, but began to accept it more after the Black Death, when it had been very popular. Because God was believed to control everything – including the planets and stars – it might be argued that the influence of astrology was, by extension, the influence of God.

- Miasma

A **miasma** (plural: miasmata) was **bad air** that was believed to be filled with harmful fumes. Both Hippocrates and Galen had written about miasmata, which they said came from swamps, corpses and other rotting matter.

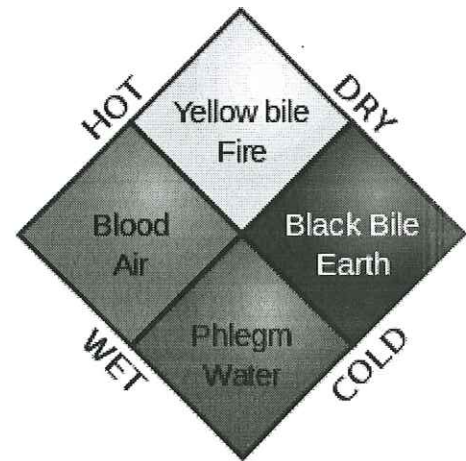
- The Four Humours

The theory of **the Four Humours** said that the body was made up of four elements ('humours') – **blood, phlegm, black bile** and **yellow bile** – which must be balanced in the body. **It was believed that illness was caused by these humours being out of balance.**

The humours were linked to the **seasons** (e.g. winter = wet and cold = too much phlegm) and **personality traits** (e.g. hot-tempered = too much yellow bile). Each humour was also associated with a **star sign**.

The Theory of the Four Humours was created by Ancient Greek physician **Hippocrates**, and developed by Ancient Rome physician **Galen**. Galen added to it with the **Theory of Opposites**, which suggested that the humours could be rebalanced by applying the opposite.

For example, someone with too much phlegm (cold) could eat something hot, like a pepper.



Why did Galen and Hippocrates have such a big influence?

There are 3 key reasons why ancient thinking was so popular during the Medieval period:

- The influence of the Church

Galen's ideas were promoted by the Church because he believed in the soul, which fitted in with their beliefs. Since the Church controlled all books and education, their texts about Galen were the only ones widely taught.

- The importance of book learning

Most people could not read, so a **good physician was considered to be someone who was widely read, not someone who had lots of hands-on experience**. A physician who was not well-read on Hippocrates and Galen would have struggled to find work.

- The lack of alternatives

There was little scientific evidence to support any other theories. **Dissections** were mostly illegal, because the Church said that bodies must remain whole for the soul to go to heaven. This meant that people couldn't experiment and see the workings of the body for themselves.

Dissections of **criminals** were occasionally allowed. If anything was found which disagreed with Galen's book, it could simply be explained away because the body was that of an imperfect criminal.

The **printing press** was invented in 1440, allowing scientific knowledge to be spread faster and more easily, but it wouldn't have a large impact until the Renaissance period.

The religion of England during the Middle Ages was _____. Most people believed the Church's teaching that disease was sent by God as a _____ for sin, since the Church controlled books and education. Another popular belief was that the alignment of the _____ influenced disease, or that it was caused by bad air known as _____.

A key idea at the time was the theory of _____, which had been created by Greek physician Hippocrates, and later developed by _____. The theory stated that the body was made up of four key elements (blood, phlegm, black bile and yellow bile) and that illness was caused when these were _____.

Approaches to Treatment

- Religious Treatments

People often turned to religion to help treat disease, since God was believed to be one of the key causes of illness.

Common religious treatments included **prayer, fasting, paying for a special Mass (a Catholic church service) and pilgrimages.**

It was believed that doing these things would **remove sin** and show **faith to God**, so that he would remove your illness.



- Supernatural Treatments

Using **charms and amulets** and **chanting incantations** (spells or charms) was believed to ward off diseases and heal symptoms.

Astrology also played a part in treatment. Physicians would look at star charts and horoscopes during diagnosis, and different operations could only be carried out at certain times, depending on the position of the stars.

- Humoural Treatments

Many treatments involved trying to restore the balance of the Four Humours.

- **Blood-letting (phlebotomy):** Methods including **cupping, leeches** and **cutting** a vein.
- **Purging:** Patients were given **emetics** (to make them vomit) or **laxatives** (to empty the bowels). Apothecaries sometimes also gave poisons to purge the body.

- **Theory of Opposites:** The 'opposite' would be applied to an excess humour. For example, too much blood (hot and wet) could be fixed by eating something cool such as a cucumber.
- **Urine** was examined to check the balance of the humours. A physician would check the colour, smell and even taste.

- Remedies

Herbal remedies to drink, sniff or bathe in were often used. Common ingredients included aloe vera, mint and saffron. A **theriaca** was a common spice-based mixture containing many ingredients, and used for many different illnesses.

Bathing was advised to draw in heat and help clear blockages in the humours. Plants and herbs were often added to the water.

- Hospitals

The number of hospitals increased during the Middle Ages. Many were owned and run by the Church in monasteries. Others were funded by **endowment**, where a wealthy person had left money in their will for the setting up of a hospital.

Most hospitals concentrated on **hospitality** – caring for ill people – rather than treating and curing them. They were generally clean and were good places to rest and recover, but did not employ physicians or surgeons.

Infectious or **terminal** patients were often **rejected**, since there was nothing that could be done for these people.

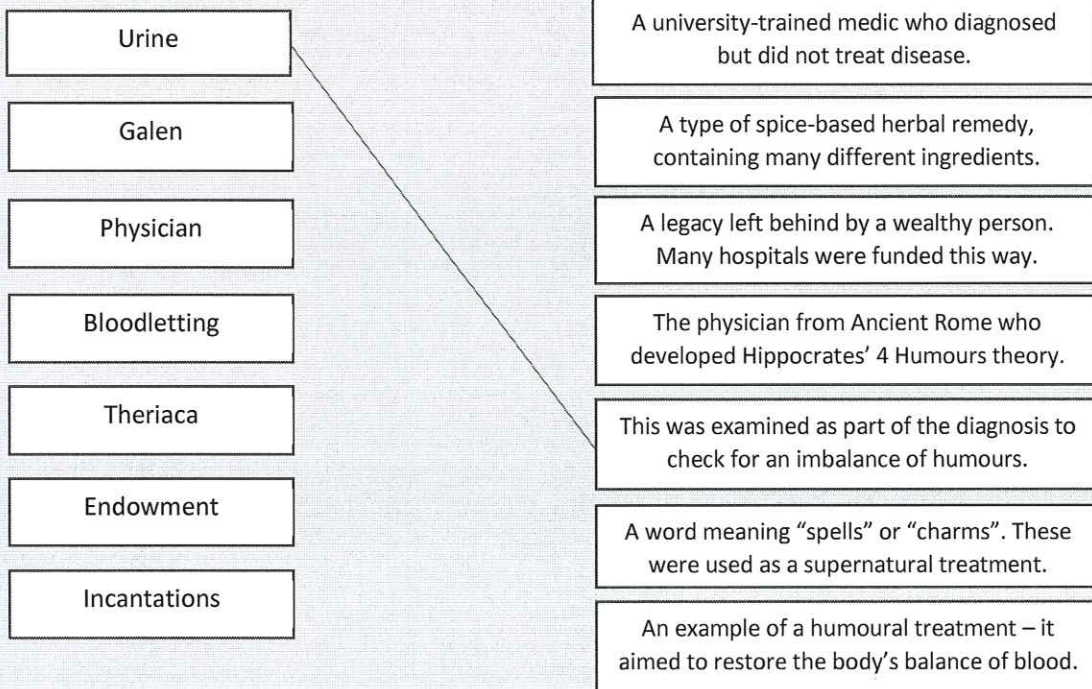
- Home

The majority of people would have been treated at home. Women would be responsible for caring for relatives. This involved making them comfortable, feeding them and mixing herbal remedies. They often grew ingredients themselves.

- Medics

Medical advice cost a lot of money, but it was available for those who could afford it. There were three types of medic:

- **Physicians** were trained at university and learned the works of Galen. Their job was to diagnose illness and recommend a treatment, but they didn't treat the patient themselves. They were very expensive.
- **Barber surgeons** carried out small operations such as bloodletting. Their knowledge was based on experience, not what they'd read in books.
- **Apothecaries** mixed herbal remedies. They were disliked by physicians because they were cheaper, and because they sometimes gave poison, which went against the **Hippocratic Oath**.



Approaches to Prevention

Since treatments could be hit-and-miss, it was far safer to avoid getting ill in the first place.

- Religious approach

For most people, the best way to prevent disease was to lead a sin-free life. Regular **prayer**, **confessions** and **offering tithes** were believed to remove sin and avoid punishment from God.

- Lifestyle

Hygiene and diet advice was provided by physicians in a set of instructions called the **Regimen Sanitatis**. Keeping clean by **bathing** was important (linked to the idea of miasma), and public baths called **stewes** were available for free.

What you ate was believed to affect the humours in the body. Eating too much was discouraged, and many people would regularly **purge** themselves to avoid digestive problems.

- Purifying the air

People purified the air by carrying **sweet herbs** (such as lavender) or a **bunch of flowers** (a posy). There was **some** action from local government, who tried to tackle miasmata by keeping towns clean. For example, they tried to make sure no rotting animals were left lying around.

Case Study: The Black Death 1348

In 1348 a new plague, the **Black Death**, reached England. It was spread by **fleas** and the main symptom was large, painful **buboes**. Most victims died within a few days, and around a **third** of England's population died in all. When it came to causes, treatment and prevention of the plague, people generally applied the same knowledge they had about illness.



Causes	Treatments	Preventions
<p><u>Religious and supernatural:</u> Many thought the plague was God deserting mankind.</p> <p>There had also been an unusual positioning of the planets in 1345, which some thought was a bad sign.</p> <p><u>Bad air:</u> Miasma was the main cause associated with the Black Death.</p> <p>People thought it was spread by breathing in impure air, which may have originated from poisonous fumes released by a volcano or earthquake.</p>	<p><u>Religious and supernatural:</u> People prayed and confessed their sins, although many accepted that if it was God's will for you to get the plague, it was inevitable that you would die.</p> <p><u>Humoural treatments:</u> Physicians tried standard treatments like purging and bleeding, but these did not work. Surgeons sometimes lanced (pierced) the buboes, and occasionally these patients would survive.</p> <p><u>Purifying the air:</u> Bonfires and sweet-smelling herbs were recommended to ward off bad air.</p> <p><u>Herbal remedies:</u> These were used, but like humoural treatments, were mostly ineffective.</p>	<p><u>Religious and supernatural:</u> People prayed, made pilgrimages and whipped themselves (self-flagellation) to show how sorry they were.</p> <p><u>Purifying the air:</u> One of the main ways of prevention was to carry sweet herbs, to prevent miasma. People also ran away to escape the bad air in towns, but this only helped to spread the plague.</p> <p><u>Common beliefs:</u> Some physicians recommended doing joyful things as a protection.</p> <p><u>Government action:</u> The government brought in quarantine laws, but they were hard to enforce because local authorities had little power - rich people moved around freely and the Church ran as normal.</p>



Solve these anagrams:

THE IT	<i>This was a sum of money paid by everyone to the Church</i>	
IMAGINE RESISTANT	<i>A set of instructions on hygiene, diet and lifestyle.</i>	
SEW SET	<i>The name of the public baths in medieval times.</i>	
YOPS	<i>A bunch of sweet-smelling flowers, used to ward off miasma.</i>	
NEAR QUAIN	<i>This measure of isolating people with the plague was ignored by many during the Black Death.</i>	
GALEN IS LET OFF ALL	<i>This means to whip yourself, and was a common method of trying to prevent disease.</i>	
IM A SAM	<i>Most people thought that this caused disease.</i>	

QUICK SUMMARY

- Doctors followed the ideas of **Hippocrates** and **Galen**. They believed illness was caused by an imbalance of the **Four Humours**.
- The **Church** was very influential. People believed that disease was sent by God as a punishment for sins.
- Doctors studied star charts because the **movement of the planets** was believed to affect people's health.
- A common belief was that **miasma** (bad air) caused disease.
- Medical advice was given by **physicians, surgeons** and **apothecaries**, but most people would be treated at home.
- When the **Black Death** hit in 1348, people did not know what caused it or how to treat it, so they tried to apply their existing ideas about illness.

Topic Test - Theme 1: Medicine in the Middle Ages

- 1. Name 2 ways in which the Church had an impact on people's everyday lives.**

- 2. What was the theory of the Four Humours?**

- 9. Give 2 differences between a physician and a barber surgeon.**

- 10. Who ran many of the hospitals in medieval times?**

- 11. Give 2 examples of ways in which people tried to prevent disease.**

- 12. What were herbal remedies?**

- 13. What was believed to be the main cause of the Black Death? What do we now know was the real cause?**

- 14. Give 3 examples of ways in which people tried to avoid catching the Black Death.**