

History, Medicine through time

Lesson 7 of 30

Worksheet:

Why was there greater medical progress between 1500-1700?

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What was the Renaissance?

The Renaissance began in Europe (Italy) in the mid 1400s and saw the revival of everything classical. Ancient Greek and Roman ideas became fashionable and many more works were translated into Greek and Latin. Greater trade and communication between **intellectuals** in the East (such as **Constantinople**) and the West had developed knowledge in areas such as mathematics, geography, philosophy and medicine.

The Renaissance saw new technological and scientific developments and people's attitudes towards the world around them began to gradually change, including towards medicine.

It became more acceptable to challenge traditional ideas and form new ones which led to individuals questioning the beliefs of Galen and other classical scholars.



The Reformation

Martin Luther was a German priest whose actions triggered the **European Reformation**. Martin Luther was extremely critical of the practices of the Catholic Church which can be seen in his **95 Theses** which attacked some practices, for example the selling of **indulgences**. Luther also burnt a copy of a **papal bull** which **excommunicated** Luther from the Catholic Church. The development of the printing press helped to spread Luther's ideas and encouraged others to challenge the authority of the Church. Other individuals followed Luther's example and burned books by Galen.

In England, the Protestant Reformation began with **Henry VIII**'s 'break from Rome' in 1533. This was when Henry set up his own Church of England with himself as the Supreme Head of the Church and the Pope no longer had authority over religion in England.

Although Henry had previously criticised Luther's ideas in his own book, he was a supporter of **Humanism**. Humanism was the practice of learning and that human beings had the ability to decide for themselves about the truth of the world around them. Humanists moved away from the belief that God was responsible for everything that happened, although the ideas to replace this belief were slow in being formed. Both the Protestant Reformation and the rise of humanism caused the decline of the Church. Although most people remained very religious, the Church had less control over education and everyday life.



Other key developments of the Renaissance

- **Art** - Art was closely connected to developments in **anatomy**. One famous Renaissance painter was **Leonardo da Vinci**. He became well known for his precise drawings of the human body and his work was even used to illustrate new medical books. Artists like da Vinci actually studied corpses and performed dissections to make sure their work was as accurate as possible.
- **The 'New World'** - The 'discovery' of America by **Christopher Columbus** led to new foods, medicines being brought back from the 'new world' as well as making England richer. You will see in a future lesson an example of a new, effective herbal remedy brought back from the 'new world' to treat malaria. This discovery also showed the importance of finding new things rather than sticking to traditional ideas.
- **Changes in Education** - With the decline of the power of the Church, new universities were set up. For example, many eminent individuals studied at **Padua** in Italy. Universities like Padua practices scientific freedom and it became the center for anatomical dissection where physicians did their own dissections rather than observe whilst reading from an ancient book. Here, doctors like **Andreas Vesalius** proved many of Galen's ideas wrong through careful study and experimentation. Their ideas were then published and spread around Europe.



Technological advancements

- **The printing press** - In the previous lesson, we saw that the printing press was developed at the end of the medieval period in around 1440 by **Johannes Gutenberg**. By 1500, there were hundreds of printing presses all around Europe. The printing press was a significant development for both the Renaissance in general but also for progress in medicine. It meant that texts were no longer copied out by hand by (which was often done by monks). Instead information could be copied quicker and more accurately, leading to the spread of new ideas throughout Europe. This also took power away from the Church as they could no longer control the texts being published e.g. those criticising Galen.
- **The microscope** - In the early 1600s, microscopes were being developed. This allowed individuals to study magnified images. For example, **Robert Hooke** published *Micrographia* in 1665 which showed magnified images such as a close-up drawing of a flea. Microscopes continued to become more powerful and in 1683, a Dutch scientist named **Antony van Leeuwenhoek** observed '*animalcules*'. Although the images were unclear and it was not known exactly what they were, it was the first recorded observation of bacteria and lay the foundations for further research.
- The '**scientific method**' - This involved conducting an experiment, collecting observations, then coming to a conclusion.



The Medical Renaissance

The developments of the Renaissance did change ideas towards medicine. Primarily this change was the challenging of tradition due to the decline of the influence of the Church in medicine (with the exception of epidemics) and the fact that ideas of physicians and scientists about the cause of disease were beginning to change.

Another reason why there was more medical progress in the Renaissance was dissection. Dissection was no longer banned by the Church and so more discoveries were made about the human body which you will learn about in future lessons. Individuals like **Andreas Vesalius** and **William Harvey** discovered the mistakes made by Galen and aimed to experiment to explain these mistakes rather than make them fit with Galen's ideas like in the medieval period.



The Medical Renaissance

However, many ordinary people stuck to tradition, not daring to think for themselves, still saying it was wrong to challenge Galen. So what developed was a battle of attitudes between people defending the old ideas and people fighting for new ones. You will learn in future lessons how the practice of medicine remained similar in many ways to the medieval period.

For example, although there were lots of new ideas, people still didn't understand the true cause of disease and treatments and preventions were often still based on the Theory of the Four Humours and Miasma. Also, at times of epidemics, people often reverted back to the ideas used during the Black Death in the medieval period e.g. using charms to ward off the disease and praying to God. New discoveries didn't lead to new treatments of disease for the most part.



Glossary

- **95 Theses** - Martin Luther's criticisms of the Catholic Church, nailed to a church door in Germany in 1517.
- **Anatomy** - The study of the inside of the human body.
- **Animalcules** - 'little animals'.
- **European Reformation** - A religious movement in the 16th century challenging the Catholic Church.
- **Excommunicated** - When someone was excluded from the Catholic Church.
- **Indulgences** - The practice of paying the Church to remove your sins.
- **Papal bull** - A decree (order) issued by the Pope.



Comprehension Questions

1. How did the Renaissance begin?
2. How did the Protestant Reformation and Humanism reduce the power of the Catholic Church in England?
3. Can you describe 2 things that changed during the Renaissance?
4. Can you describe 2 aspects of continuity to the medieval period?
5. Challenge question: Explain two reasons why the Renaissance was significant for medical progress between 1500-1700.

You may want to use the following sentence starters:

- One reason why there was greater medical progress was because....
- This led to progress in medicine because...

