# Medicine in Britain, c1250- present

## Ideas about the cause of disease and illness

**c1250 - c1500: Medicine in medieval England**

- Supernatural and religious explanations of the cause of disease
- Rational explanations: the Theory of the Four Humours
- Rational explanations: the Miasma Theory
- The continuing influence in England of Hippocrates and Galen

**c1500 - c1700: The Medical Renaissance in England**

- Continuity and change in explanations of the cause of disease and illness
- A scientific approach, including the work of Thomas Sydenham in improving diagnosis
- The influence of the Printing Press
- The work of the Royal Society on the transmission of ideas

**c1700 - c1900: Medicine in C18th and C19th Britain**

- Continuity and change in explanations of the cause of disease and illness
- The influence in Britain of Pasteur’s Germ Theory and Koch’s work on microbes

**c1900- present: Medicine in modern Britain**

- Advances in understanding the causes of illness and disease: the influence of genetics
- Advances in understanding the causes of illness and disease: the influence of lifestyle factors
- Improvements in diagnosis: the impact of the availability of blood tests, scans and monitors

## Approaches to prevention and treatment

**c1250 - c1500: Medicine in medieval England**

- Approaches to prevention and treatment: religious actions
- Approaches to prevention and treatment: bloodletting and purging
- Approaches to prevention and treatment: purifying the air
- Approaches to prevention and treatment: use of remedies
- New and traditional approaches to hospital care in the C13th
- The role of the physician, apothecary and barber surgeon in treatment and care

**c1500 - c1700: The Medical Renaissance in England**

- Change in approaches to prevention, treatment and care in the community and in hospitals.
- Change in care and treatment: improvements in medical training and the influence in England of the work of Vesalius.

**c1700 - c1900: Medicine in C18th and C19th Britain**

- The extent of change in care and treatment: improvements in hospital care and the influence of Nightingale
- The impact of anaesthetics and antiseptics on surgery
- New approaches to prevention: the development and use of vaccinations
- New approaches to prevention: the Public Health Act 1875

**c1900- present: Medicine in modern Britain**

- Advances in understanding the causes of illness and disease: the influence of genetics
- The extent of change in care and treatment: the impact of the NHS; improved access to care.
- The extent of change in care and treatment: the impact of science and technology; advances in medicines, including magic bullets and antibiotics.

## Case Studies

**Dealing with the Black Death, 1348-49; approaches to treatment and attempts to prevent its spread.**

**Dealing with the Great Plague in London, 1665; approaches to treatment and attempts to prevent its spread.**

**William Harvey and the discovery of the circulation of the blood.**

**Fighting Cholera in London, 1854; attempts to prevent its spread; the significance of Snow and the Broad Street pump.**

**Jenner and the development of vaccination.**

**Fleming, Florey and Chain’s development of penicillin.**

**The fight against lung cancer in the C21st: the use of science and technology in diagnosis and treatment; government action.**
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| **Medicine in Medieval England** c.1250 – c.1500 | Ideas about the causes of disease and illness.  
⇒ If you were sick – you believe that God had sent an illness to punish you for your sins or you breathed in bad air (miasma).  
⇒ The four humours Developed by Hippocrates and Galen (doctors from ancient Greece) – sickness was blamed on the four humours (liquids) in your body being out of balance – blood, yellow bile, black bile and phlegm.  
⇒ Specialist’s doctors called physicians treated the rich. They checked the **colour, smell and taste of your urine** to see if your humours were out of balance, they also checked the **star charts**.  

Methods of prevention and treatment.  
⇒ Galen’s Theory of Opposites.  
⇒ **Praying to God, going to Church** and asking for forgiveness.  
⇒ Take herbal remedies (made from plants).  
⇒ Your humours would be balanced by **bloodletting** (taking blood from your body), **bathing**, or purging (making you vomit/poo). You may be told to exercise and change your diet.  
⇒ You could be treated by **women, barber surgeons, apothecaries** or a **physician**.  

Some remedies helped people recover but nothing stopped the Black Death - 1348 – killed nearly half the population. People worked hard to keep streets and water supplies clean, but could not stop the plague spreading. |
| **The Medical Renaissance** c.1500 – c.1700 | Ideas about the causes of diseases and illness.  
⇒ When you were sick – **God or miasma was the cause**, or the **four humours** were out of balance.  

Methods of prevention and treatment  
⇒ Prayer and herbal remedies remained common treatments.  
⇒ Physicians followed the ideas of Hippocrates and Galen – **bleeding was the common remedy**.  
⇒ Barber-surgeons carried out simple operations on the outside of the body.  
⇒ Internal surgery was impossible without effective anaesthetic  

New discoveries  
⇒ **Thomas Sydenham** came up with the idea of looking for the cause of the disease instead of just treating the symptoms.  
⇒ **Andreas Vesalius** improved knowledge of anatomy (structure of the body) – he dissected dead bodies.  
⇒ **William Harvey** – discovered blood circulates round the body.  
⇒ Knowledge of these discoveries spread quickly because books were now **printed** instead of written by hand.  
⇒ The Royal Society meet to discuss new medical ideas, people stop just blaming disease on God.  

These discoveries built up accurate medial knowledge but they did not cure anyone of their illnesses.  
⇒ 1665 – Outbreak of the plague in London – but no one could stop it.  
They cleaned the street, cleansed the air – quarantined the sick but they still died. |
| Medicine c.1700 – c.1900 | Ideas about the causes of disease and illness.  
| | ➢ 1861- Louis Pasteur published his ‘germ theory’ – he said bacteria (germs) cause diseases. He carried out experiments to prove his theory.  
| | ➢ 1876 – Koch proves Pasteur right by finding the bacterium that causes anthrax.  
| | Methods of prevention and treatment  
| | ➢ 1798 – Edward Jenner used vaccination to prevent people catching small pox – killed 1000s each year. This was a one-off discovery – did not lead to others.  
| | ➢ Pasteur’s theory did lead to other discoveries – e.g. vaccines to prevent killer disease.  
| | ➢ Germ theory – Joseph Lister’s development of antiseptics (carbolic acid) to prevent infection during surgery.  
| | ➢ James Simpson – realises that chloroform can be used as an anaesthetic to reduce pain in surgery  
| | ➢ Edwin Chadwick’s report helped persuade governments to pass the Public Health Act 1848 to provide sewers and clean towns.  
| | ➢ 1849 – John Snow saves Londoners from cholera by realising it comes from dirty water  
| | ➢ Nightingale works to clean hospitals (still based on miasma theory)  
| | Not everything changed.  
| | ➢ People still used herbal remedies.  
| | ➢ Some people still believed that bad air caused diseases because they spread rapidly in the dirty, smelly industrial towns.  
| | ➢ People still had to pay to see a doctor – 1 in 5 babies died before they were 1.  
| | ➢ Life expectancy began to rise – by 1900 people on average had a life expectancy of around 50 than the previous 40.  
| Medicine in modern Britain c.1900 to the present | Ideas about causes of disease and illness.  
| | ➢ 1953 – Crick and Watson discovered DNA – (the building blocks of the human body)  
| | ➢ This led to the discovery of individual genes that cause some illnesses.  
| | Methods of prevention and treatment.  
| | ➢ Development in science and technology – greatly improved surgery – e.g. identifying blood groups led to blood transfusions.  
| | ➢ 1909 – Paul Ehrlich develops the first ‘magic bullet’ which killed the bacteria causing syphilis (but also killed the patient too!)  
| | ➢ 1940 - Discovery of more chemical drugs and antibiotics. Fleming (1928) discovers penicillin, Florey, Chain and the war lead to the development of penicillin.  
| | ➢ 1942 – Beveridge Report create the plan for the NHS – this began in 1948. This was free for everyone and so people were more likely to get help before an illness became serious.  
| | ➢ High tech treatments such as x-rays, radiotherapy, chemotherapy and dialysis machines hugely improve medicine.  
| | ➢ More recently – discoveries about DNA and genes have led to the possibility of preventing diseases which people are born with – biggest medical breakthrough in history.  
| | People born today will, on average, live at least twice as long as people born in 1800. |
Practice exam questions for Medicine through Time

✓ Below is a mixture of 4, 12 and 16 mark questions – practice at least one of each before your exam.

1. “There was no progress in understanding the cause of disease between 1250 and 1800” How far do you agree? Explain your answer. (16 marks)

2. “Pasteur’s Germ Theory was the most important turning point in understanding the causes of disease and illness.” How far do you agree? Explain your answer. (16 marks)

3. “There was little change in methods of treating illnesses between 1250 and 1700.” How far do you agree? Explain your answer. (16 marks)

4. “Simpson’s use of chloroform has been the most important turning point in surgery.” How far do you agree? Explain your answer. (16 marks)

5. Explain why there was so little change in medicine in the Middle Ages. (12 marks)

6. Explain why there was little change in methods of treating and preventing disease during the period c.1500-c1700. (12 marks)

7. Explain one way in which ideas about causes of disease were similar in the fourteenth and seventeenth centuries. (4 marks)

8. Explain one way in which treatments for illnesses were similar in the fourteenth and seventeenth centuries. (4 marks)

9. Explain one way in which people’s reactions to epidemics of disease were similar in the seventeenth and nineteenth centuries. (4 marks)

10. Explain one way in which people’s reactions to epidemics of disease were different in the seventeenth and nineteenth centuries. (4 marks)

11. Explain why there were changes in understanding of the cause of disease during the period 1700-1900. (12 marks)

12. Explain why there have been changes in methods of treating illness during the twentieth century. (12 marks)