

# Medicine in Britain, c1250- present

c1250 - c1500: Medicine in medieval England	<b>Ideas about the cause of disease and illness</b>	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		
	<b>Approaches to prevention and treatment</b>	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				
<b>CASE STUDY</b>	The role of the physician, apothecary and barber surgeon in treatment and care			
c1500 - c1700: The Medical Renaissance in England	<b>Ideas about the cause of disease and illness</b>	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		
	<b>Approaches to prevention and treatment</b>	Continuity 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.		
	<b>CASE STUDIES</b>	William Harvey and the discovery of the circulation of the blood		
		Dealing with the Great Plague in London, 1665; approaches to treatment and attempts to prevent its spread		
c1700 - c1900: Medicine in C18th and C19th Britain	<b>Ideas about the cause of disease and illness</b>	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		
	<b>Approaches to prevention and treatment</b>	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		
	<b>CASE STUDIES</b>	New approaches to prevention: the Public Health Act 1875		
Jenner and the development of vaccination				
c1900- present: Medicine in modern Britain	<b>Ideas about the cause of disease and illness</b>	Fighting Cholera in London, 1854; attempts to prevent its spread; the significance of Snow and the Broad Street pump		
		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		
	<b>Approaches to prevention and treatment</b>	Improvements in diagnosis: the impact of the availability of blood tests, scans and monitors		
		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.		
		The extent of change in care and treatment. The impact of science and technology; high-tech medical and surgical treatment in hospitals.		
		New approaches to prevention: mass vaccinations and government lifestyle campaigns.		
<b>CASE STUDIES</b>	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.			



# Medicine through time (in a NUTSHELL)



Subject Content	Make reference to:
<p><b>Medicine in Medieval England</b> c.1250 – c.1500</p>	<p><b>Ideas about the causes of disease and illness</b></p> <ul style="list-style-type: none"> <li>⇒ If you were sick – you believe that God had sent an illness to punish you for your sins or you breathed in bad air (<b>miasma</b>).</li> <li>⇒ The <b>four humours</b> Developed by <b>Hippocrates</b> and <b>Galen</b> (doctors from ancient Greece) – sickness was blamed on the four humours (liquids) in your body being out of balance – <b>blood, yellow bile, black bile and phlegm</b>.</li> <li>⇒ Specialist’s doctors called <b>physicians</b> treated the rich. They checked the <b>colour, smell and taste of your urine</b> to see if your humours were out of balance, they also checked the <b>star charts</b>.</li> </ul> <p><b>Methods of prevention and treatment.</b></p> <ul style="list-style-type: none"> <li>⇒ Galen’s Theory of Opposites.</li> <li>⇒ <b>Praying to God, going to Church</b> and <b>asking for forgiveness</b>.</li> <li>⇒ Take <b>herbal remedies</b> (made from plants).</li> <li>⇒ Your humours would be balanced by <b>bloodletting</b> (taking blood from your body), <b>bathing</b>, or <b>purging</b> (making you vomit/poo). You may be told to exercise and change your diet.</li> <li>⇒ You could be treated by <b>women, barber surgeons, apothecaries</b> or a <b>physician</b>.</li> </ul> <p>Some remedies helped people recover but nothing stopped the <b>Black Death - 1348</b> – killed nearly half the population. People worked hard to keep streets and water supplies clean, but could not stop the plague spreading.</p>
<p><b>The Medical Renaissance</b> c.1500 – c.1700</p>	<p><b>Ideas about the causes of diseases and illness.</b></p> <ul style="list-style-type: none"> <li>⇒ When you were sick – <b>God or miasma was the cause</b>, or the <b>four humours</b> were out of balance.</li> </ul> <p><b>Methods of prevention and treatment</b></p> <ul style="list-style-type: none"> <li>⇒ <b>Prayer and herbal remedies</b> remained common treatments.</li> <li>⇒ Physicians followed the ideas of Hippocrates and Galen – <b>bleeding was the common remedy</b>.</li> <li>⇒ Barber-surgeons carried out simple operations on the outside of the body.</li> <li>⇒ Internal surgery was impossible without effective anaesthetic</li> </ul> <p><b>New discoveries</b></p> <ul style="list-style-type: none"> <li>⇒ <b>Thomas Sydenham</b> came up with the idea of looking for the <b>cause</b> of the disease instead of just treating the symptoms.</li> <li>⇒ <b>Andreas Vesalius</b> improved knowledge of <b>anatomy</b> (structure of the body) – he dissected dead bodies.</li> <li>⇒ <b>William Harvey</b> – discovered blood circulates round the body.</li> <li>⇒ Knowledge of these discoveries spread quickly because books were now <b>printed</b> instead of written by hand.</li> <li>⇒ The Royal Society meet to discuss new medical ideas, people stop just blaming disease on God.</li> </ul> <p>These discoveries built up accurate medial knowledge but they did not cure anyone of their illnesses.</p> <ul style="list-style-type: none"> <li>⇒ 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.</li> </ul>

<p><b>Medicine</b> c.1700 – c.1900</p>	<p><b>Ideas about the causes of disease and illness.</b></p> <ul style="list-style-type: none"> <li>⇒ 1861- <b>Louis Pasteur</b> published his '<b>germ theory</b>' – he said bacteria (germs) cause diseases. He carried out experiments to prove his theory.</li> <li>⇒ 1876 – Koch proves Pasteur right by finding the bacterium that causes anthrax.</li> </ul> <p><b>Methods of prevention and treatment</b></p> <ul style="list-style-type: none"> <li>⇒ <b>1798 – Edward Jenner</b> used <b>vaccination</b> to prevent people catching small pox – killed 1000s each year. This was a one-off discovery – did not lead to others.</li> <li>⇒ <b>Pasteur's theory</b> did lead to other discoveries – e.g. vaccines to prevent killer disease.</li> <li>⇒ <b>Germ theory – Joseph Lister's</b> development of <b>antiseptics</b> (carbolic acid) to prevent infection during surgery.</li> <li>⇒ <b>James Simpson</b> – realises that chloroform can be used as an anaesthetic to reduce pain in surgery</li> <li>⇒ <b>Edwin Chadwick's</b> report helped persuade governments to pass the <b>Public Health Act 1848</b> to provide sewers and clean towns.</li> <li>⇒ <b>1849 – John Snow</b> saves Londoners from cholera by realising it comes from dirty water</li> <li>⇒ <b>Nightingale</b> works to clean hospitals (still based on miasma theory)</li> </ul> <p><b>Not everything changed.</b></p> <ul style="list-style-type: none"> <li>⇒ People still used herbal remedies.</li> <li>⇒ Some people still believed that bad air caused diseases because they spread rapidly in the dirty, smelly industrial towns.</li> <li>⇒ <b>People still had to pay to see a doctor</b> – 1 in 5 babies died before they were 1.</li> <li>⇒</li> </ul> <p><b>Life expectancy began to rise</b> – by 1900 people on average had a life expectancy of around 50 than the previous 40.</p>
<p><b>Medicine in modern Britain</b> c.1900 to the present</p>	<p><b>Ideas about causes of disease and illness.</b></p> <ul style="list-style-type: none"> <li>⇒ <b>1953 – Crick and Watson discovered DNA</b> – (the building blocks of the human body)</li> <li>⇒ This led to the discovery of individual genes that cause some illnesses.</li> </ul> <p><b>Methods of prevention and treatment.</b></p> <ul style="list-style-type: none"> <li>⇒ <b>Development in science and technology</b> – greatly improved surgery – e.g. identifying blood groups led to blood transfusions.</li> <li>⇒ <b>1909</b> – Paul Ehrlich develops the first '<b>magic bullet</b>' which killed the bacteria causing syphilis (but also killed the patient too!)</li> <li>⇒ <b>1940</b> - Discovery of more <b>chemical drugs</b> and <b>antibiotics</b>. <b>Fleming (1928)</b> discovers <b>penicillin</b>, <b>Florey, Chain</b> and the <b>war</b> lead to the development of <b>penicillin</b>.</li> <li>⇒ <b>1942 – Beveridge Report</b> create the plan for the <b>NHS</b> – this began in <b>1948</b>. This was <b>free for everyone</b> and so people were more likely to get help before an illness became serious.</li> <li>⇒ <b>High tech treatments</b> such as x-rays, radiotherapy, chemotherapy and dialysis machines hugely improve medicine.</li> <li>⇒ 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.</li> </ul> <p>People born today will, on average, live at least twice as long as people born in 1800.</p>

## 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)