

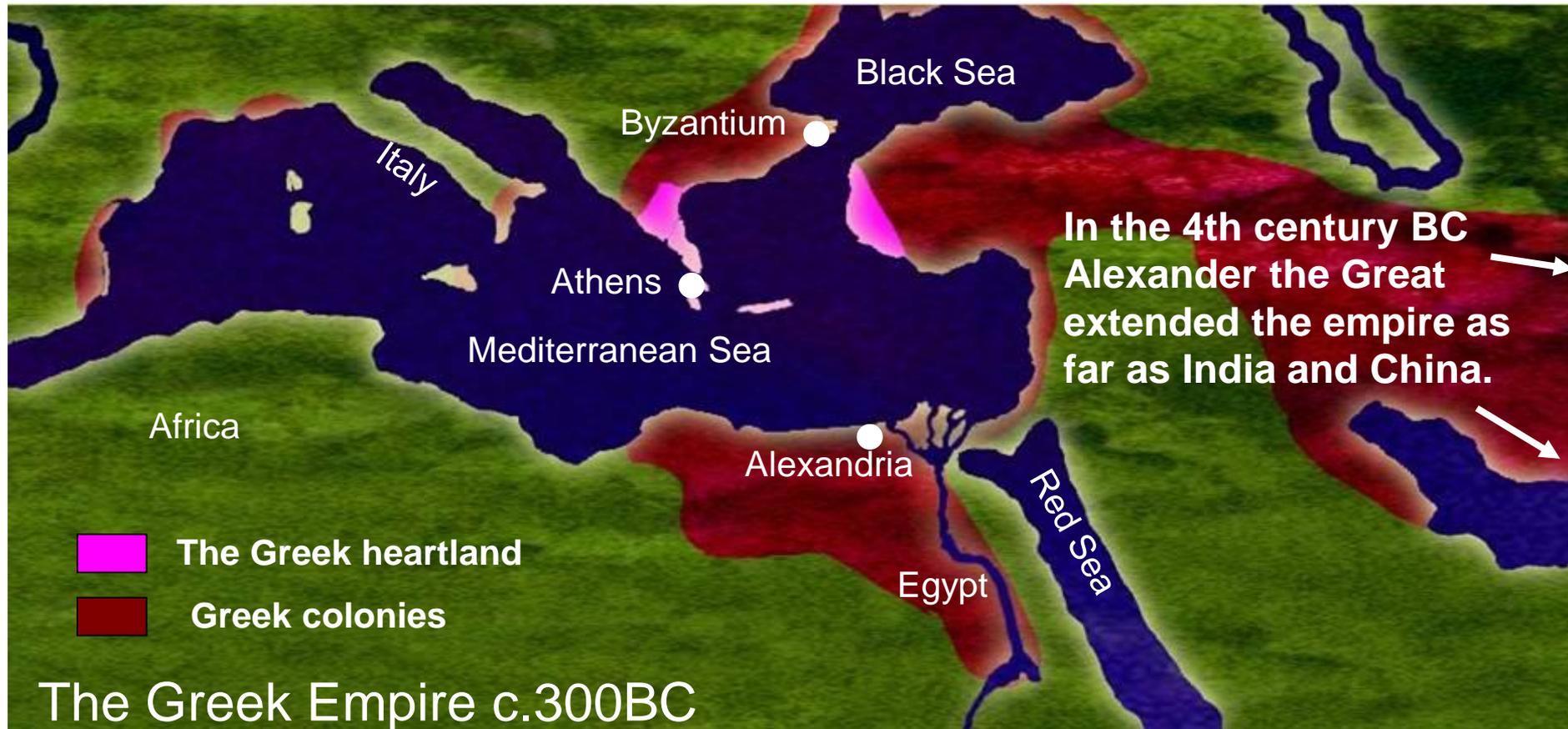
Ancient Greece

1000 BC to 200 BC



The Greek Empire

From about 1500 BC people from what is now Greece (the area coloured pink) spread across the Mediterranean to develop trading links and colonies.



Like the Egyptians, the Greeks were successful farmers and fishermen who established profitable trading links with other lands in the Mediterranean.

They traded with Egypt and eventually took it into their empire, gaining its knowledge of medicine.

The Greeks' wealth enabled them to develop a love of learning and to find answers to the mysteries around them. They were keen to research medicine and came up with new ideas, some of which were to survive for over a thousand years.

There were two strands to Greek medicine. The first stemmed from their strong belief in the gods, and the second from new ideas from Greek doctors, the most famous of which was **Hippocrates**.



The Greeks believed in gods for almost all aspects of life – Poseidon, god of the sea; Ares, god of war; and so on.

They also had a god of healing, Asclepius, and they built temples to him, called Asclepeia. It was believed that if a sick person went to sleep in an Asclepeion, Asclepius and his daughters would visit him in his dreams and cure him.



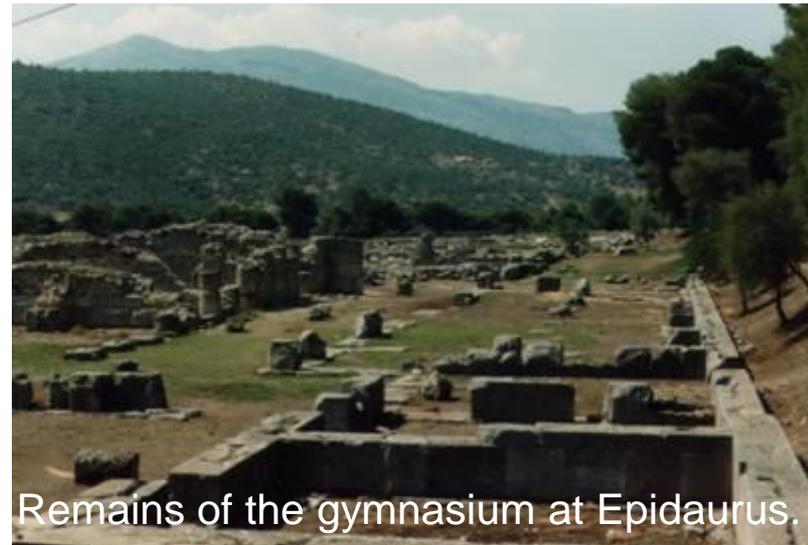
Remains of the stadium at Epidaurus.

The most famous of these Asclepeia was built at a remote location called Epidaurus, and was part of what would be regarded today as a health complex! There were baths, a gymnasium, a stadium, a library, a theatre and accommodation, as well as temples to other gods.



From an inscription found on a stone column in the temple at Epidaurus, c. 370–250 BC:

“A man with an abscess in his abdomen went to sleep in the Temple of Asclepius. In his dreams, Asclepius ordered the servants that accompanied him to grip him and hold him tightly so that he could cut open his abdomen. The man tried to escape but they gripped him and bound him. Asclepius cut open his belly, removed the abscess, stitched him up and released him. The man woke up sound and left the temple, but the floor was covered in blood.”



Remains of the gymnasium at Epidaurus.



1. Few people today would believe that the gods could heal people like this. What else might account for the large numbers of success stories at Epidaurus? (Think about what was built there.)
2. Asclepius was helped by his daughters Hygeia and Panacea. What word has Hygeia given us in medicine? Look up in a dictionary what panacea means.
3. Though Epidaurus was probably the grandest Asclepion, many other Asclepeia were built all over Greece. What does this tell us about the Greeks' faith in the god of healing?
4. Visiting an Asclepion would not have caused anyone any harm, but why might they have had a negative effect on the progress of medicine?



As well as believing in the healing powers of Asclepius, there was also a lot of respect for other medical theories.

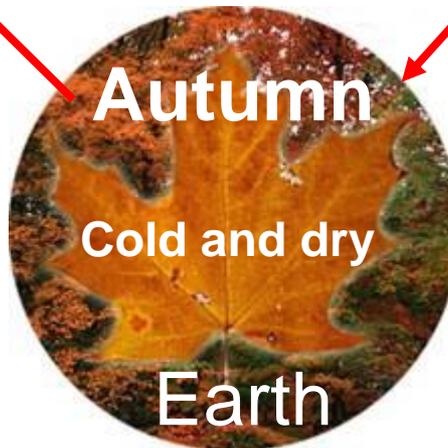
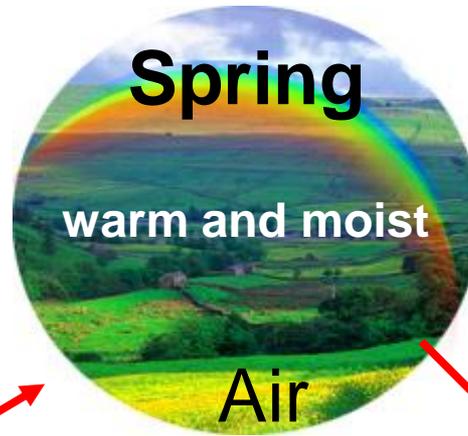
The wealthier ancient Greeks devoted a lot of time to thinking and learning. Because of this, many new medical ideas were to emerge from philosophers and doctors.

One of the most important ideas was the **Theory of the Four Humours** which became the foundation of all Greek medical practice. It was a theory which was to be widely used by doctors for nearly 2,000 years. The reliance on the theory was so heavy that it prevented doctors from looking elsewhere for causes of disease.

The theory was based on the Greek idea that the four elements (earth, fire, air and water) were linked to the four seasons.



The Greeks believed that the world was made up of four elements – air, fire, earth and water.



They noted that these elements had different properties – water was wet, fire was hot, etc.

Doctors noted that patients' symptoms varied with the seasons – heat rashes in summer, wet runny noses in winter.

By observing the seasons, they believed that each season must have a dominant element, as shown here.



The Greeks believed the human body was made up of four vital liquids which they referred to as 'humours':

- phlegm
- blood
- black bile
- yellow bile

Their theory stated that these humours had to be in balance for the body to be well, that is there had to be the correct amount of each fluid. If there was too much or too little of one or more of the humours the person would become ill and they would say their humours were out of balance.



The Greeks found it easy to justify the theory. It was obvious to them, by observing patients' symptoms and the seasons, that at certain times of the year the dominant elements caused the humours to be out of balance.

For example, in winter, when it was cold and wet, people suffered colds. Their symptoms were running noses and eyes and sneezing. This, doctors claimed, showed clearly that there was too much phlegm in the body. To restore the balance the body was getting rid of the excess humour.

Similarly, a nosebleed meant the body had too much blood, and vomiting indicated an excess of bile.

It was a simple, natural theory with the body correcting the balance of its humours naturally.



Using the theory of the four humours, there were simple ways of treating the patient. The aim was to put the humours back into balance and to do this the doctor had to reduce the excess humour.

To do this he could bleed his patient, make him vomit or 'purge' (clear out) his bowel.

Bleeding a patient was a favourite treatment which was used right through to the 19th century. A scratch was made in the skin and the blood was let out into a cup.



18th century bloodletting equipment



Purging the bowel or making the patient vomit involved herbal concoctions:

“If the pain is under the diaphragm, clear the bowels with a medicine made from black hellebore, cumin or other fragrant herbs.” **From a book in the Hippocratic Collection, c. 300 BC.**

The Greek doctors were also well aware of the need to prevent illness and advised their patients on hygiene, diet and exercise:

“He should wash face and eyes using pure water. He should rub his teeth inside and outside with the fingers using fine peppermint powder. Long walks before meals clear out the body ... and give it more power for digesting.” **From a 5th century Greek doctor’s book.**

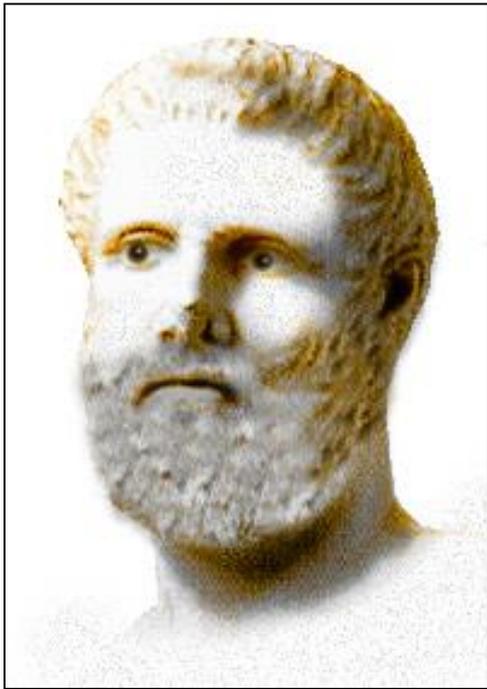


Legend has it that Hippocrates was born in Cos in about 460 BC. He was the most famous Greek doctor, and recorded his ideas and discoveries in a number of books.

He and his followers broke from the tradition of believing that the gods caused and cured disease and he is looked upon as the founder of modern medicine. He encouraged doctors to observe symptoms and to look for causes based on those symptoms.

Copy the diagram on the next slide into your book and then explain in your own words why Hippocrates is regarded as such an important figure in the development of medicine. (You will need to include in your answer what medicine was like before Hippocrates).





Observation Hippocrates taught how vital it was to look at his patients and note down their symptoms.

Hippocratic Oath This oath of helping patients rather than just seeking profits, confidentiality and high standards is still used today.

Recording Hippocrates encouraged doctors to record what they observed to help them in their diagnosis and to pass on to others.

Simple, natural remedies He promoted the use of natural cures rather than magical and mythical ones.

Books It is known that he wrote many books on medicine, though he did not write the hundreds which make up the Hippocratic Collection. These books became the backbone of medicine for nearly 2,000 years.

Causes of illness He based his ideas on the four humours theory. Though this theory was wrong, he did at least look for underlying reasons for illness rather than blame the gods.



Which of Hippocrates's methods are still used today? Give examples of similar modern uses.

Many people followed Hippocrates and admired his way of working, yet still visited the Aesclepiion at times.

What does this tell us about the advances the Greeks made to medicine and people's health?

Surgery

Surgery had still not progressed much. The majority involved setting broken bones, with some amputations of arms or legs. Despite better instruments, operations within the body were still very rare.

Refer back to your notes on Egyptian medicine. In a few sentences describe the similarities and differences between the two.

