



# Medicine for Managers

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## What did the Greeks do for us?

**The ancient Greeks are widely held to have been the founders of Western medicine between two and three thousand years ago. Indeed the concept of the Greek foundations of modern healthcare are encompassed in the name of Hippocrates, whose Oath still holds as a measure of the standards to which clinicians should aspire and operate. But in reality, is there any point in considering Greek medicine today?**

It is absolutely true that there is very little if any similarity between the concepts espoused by the Greek physicians although, of course, they did not have the advantages of knowing about physiology and blood circulation, transmission of infection and the use of antibiotics, the panoply of modern medications, anaesthesia and a host of other medical skills and knowledge that, these days, we take for granted.

Medicine was a very important component of Ancient Greek society.

It was based largely on religious beliefs and there is perhaps a fanciful image of Greek physicians as skilled practitioners with a range of natural remedies and techniques to relieve pain and suffering and cure disease.

The reality is that medicine in ancient Greece was not some golden age of diagnosis and treatment with safe herbal remedies. The treatments were often harsh if not barbaric and

many of the medicinal treatments were toxic or frankly poisonous.

Yet the Greeks did build on the work of the Egyptian physicians that preceded them and laid down some of the scientific principles by which we operate today.



They recognised the importance of examination to try to understand the cause of illness. They identified the concept of lifestyle as a key influencer of good health and recognised the importance of a good diet, fluid intake, exercise and sleep.

They developed the concept of illness related to environment and many feel that they were the first physicians to pinpoint the notion of holistic medicine.

Of course there was no Greek equivalent of the General Medical Council and the so-called profession abounded with charlatans who would present exuberant images, use dangerous and valueless therapies and separate the weak

and the hapless from their wealth. It is hardly surprising that the Greek population were highly sceptical about the medical profession.

Many were afraid of allowing someone they did not know anywhere near them when they were unwell, weak and vulnerable.

For the Greek practitioners who were dedicated to trying to help those who were ill, obtaining the trust of the individual was the key objective. They understood the benefits of being recognised as of standing and authority and distinguished themselves from quacks and imposters by becoming recognisable, wearing plain, clean, simple clothing, avoiding the use of scents, perfumes and jewellery, and avoiding chanting of poetry at the bedside.

Success was hampered by the involvement and the invocation of the Gods as a cause for and an explanation of illness. Offending the Gods was a diagnosis and explanation for many of the ills of the time for which there was no treatment or

cure, other than by prayer and sacrifice. However, gradually there was a move away from the involvement of the deity and towards the principles of good diet, plenty of fluids and increased exercise.

No account of Greek medicine is complete without the consideration of Hippocrates, born in around 460BC on the island of Kos. He has been described as the father of Western Medicine. He wrote extensively, recognised and described many diseases and obtained some

insight into their origins and transmission. He described treatments of variable purpose, appropriateness and quality. But perhaps his three most enduring pronouncements are

**1. He is widely held to be the first person to recognise that diseases are caused naturally and not as some sort of punishment by the action of the Gods.** This philosophy is repeated by Plato who was alive at about the same time as Hippocrates

**2. The Hippocratic Oath.** The Oath does actually invoke the deity and starts *"I swear by Apollo the healer and by Asclepius and Hygieia and*

*Panacea . . .*". Legend has it that Apollo, the God of healing, fell in love with the human woman Coronis. However, Coronis was in love with another man and Apollo's sister shot her with an arrow. As she lay dying, she told Apollo that she was pregnant with his child. Legend says that Apollo saved the child, Asclepius but not Coronis. Hygieia, goddess of health, and

Panacea, goddess of cures are daughters of Asclepius. Legend goes on to say that Hippocrates was a descendant of one of Asclepius' sons.

The remainder of the Oath has further advice and instruction:

- Look after and reimburse teachers and pass on knowledge
- Prescribe appropriately to benefit patients according to ability and do no harm. Do not give harmful drugs or chemicals to produce abortions (at the



time of Hippocrates, wool soaked in chemicals was used as an abortifacient which was often lethal and Hippocrates advocated against its use).

- Surgery should be left to the experts in the art. This is perhaps the first record of the need to refer to specialists.
- House visits should be for the benefit of the patient, behaviour should be ethical and relationships beyond reproach (at this time the behaviour of some quack physicians was wholly deprecated)
- All information about patients should be kept confidential
- A physician following the ethical code should be respected by his friends and colleagues. However, violation of the ethical code would result in opprobrium and isolation.

It is amazing that an oath nearly two-and-a-half thousand years old should remain appropriate today.

**3. The Four Humours.** Hippocrates described four humours as bodily components

1. Black bile
2. Yellow bile
3. Phlegm
4. Blood

It is attributed to him that the four humours were necessary and should be in balance in the body in amount and strength for good health. The humoral balance was called eukrasia and imbalance led to diseases.

The Greek physician Aelius Galen (Galen of Pergamon) took up the concept, linking the four humours to the characteristics of the soul. He attributed a variety of personal characteristics to each humour and corresponding diseases to

each imbalance. For example, black bile, which was believed to be produced by the spleen, was a cause of depression in excess. Indeed the word melancholy is derived from the Greek words *melaina* = black, *chole* = bile.

The humoral philosophy has persisted through the ages and, even within the last hundred years, there have been those whose views suggested that much of human structure was based on four liquids, often using evidence which was, to say the least, tenuous.

#### *What did the Greeks actually do for us?*

The Greeks undoubtedly extended and developed the idea of observation and applying logic to their patients, to list symptoms with specific causes and treatments with specific diseases.

They espoused the concept of **doing no harm** to their patients. **Hippocrates** incorporated good diet and fresh air and exercise into his treatment planning, together with convalescence to assist recovery.

They recognised that treatment started with simple measures, using medicines if they failed and reserving surgery as a last resort.

Hippocrates is credited with close observation of those ill people he saw. He recognised acute and chronic illness.

He described a range of phases of many diseases. He realised that the production of pus was a sign of serious illness and that drainage of pus was beneficial (**laudable pus**) in assisting recovery.

He appreciated the way in which lungs drew air into the body and his studies of anatomy were greatly developed by Galen.

Hippocrates formulated the first endoscopy using a simple tube as a proctoscope to visualise haemorrhoids, which he treated with ligation or a hot iron. He wrote on gynaecological matters, although his views on pregnancy and, particularly, on its avoidance, were fanciful.

**Galen** built on Hippocrates' foundations. He developed the concept of the four humours and attributed detailed personal characteristics to each of them.

He believed that understanding on medicine was all based round the understanding of anatomy. Roman law prohibited dissection of human bodies and so Galen did most of his dissection on animals, especially primates. Galen elucidated the larynx and trachea, identifying the former as the location and origin of the voice.

Galen recognised a difference between arterial and venous blood and, although he recognised the existence of a circulatory system, he mistakenly thought that there were two separate arterial and venous circulations.

He postulated that venous blood came from the liver and arterial blood from the heart, both supplying the tissues.

Galen recognised the difference between sensory nerves, passing messages from the periphery to the brain, and motor nerves, causing muscles to work.

*He also recognised the importance of the lens of the eye in vision and surgically removed opaque lenses with a sharp needle to improve sight.*

Both Hippocrates and Galen favoured blood letting as a treatment for disease. Venesection

would become part of many treatments in Greece and later in Rome and beyond. Hippocrates introduced the leech to Greek medicine.

The Greeks undertook medicine which, at best, was primitive. But they started from nothing.

The so-called medical profession was beset with quacks and those like Hippocrates and later Galen who believed in doctoring to help patients who were unwell, had to contend with lack of knowledge, no treatments, ridicule and opprobrium and vilification when their patients died.

Yet they recognised lifestyle, elucidated respiration and circulation, started to understand infection, and related their findings to anatomical characteristics, identified through dissection of animals.

They took the first steps in recognising mental illness and worked to Hippocrates' Oath which contains the fundamental principles that should still be observed today.

They made leaps into the medical darkness and laid many foundations for the generations of medical scientists and clinicians who have brought us where we are today.

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