

# 'The Enlightenment' and its impact on medicine

## Choosing what to believe

Do you believe what you are told by others? Do you like to test the facts for yourself? These questions are important in understanding a period of history known as 'The Enlightenment'.

## 'The Enlightenment'

'The Enlightenment' was a time when new systems of thought, based on the application of reason and observation of evidence, were championed. Although the period we have come to know as the Enlightenment occurred around the 18<sup>th</sup> century, its seeds were sown much earlier. For example, accepted religious systems of belief had already been challenged by scientists such as Galileo Galilei. Galileo, building on the work of Copernicus, and using telescopes to observe the movements of the planets, concluded that the Earth was *not* the centre of the universe. Some parts of the Catholic Church considered this heretical, as the bible stated that the Earth was immovable and fixed in the heavens. Even though

Galileo had his supporters in the Church, he was eventually forced to recant. Some of his works were banned and he was put under house arrest.

In Galileo's story we can see an example of one of the key debates that characterised the Enlightenment. Should our view of the universe be informed by investigation and observation or faith in some long respected authority?

## Evidence v. Authority

The Enlightenment saw bold challenges to accepted authorities. Many thinkers openly challenged teachings of the church. One



David Hume

such figure was David Hume, a Scottish philosopher. Amongst many other things, Hume challenged biblical accounts of miracles, stating that, as they clearly violated the 'laws of nature', they were highly

improbable.

The period also saw great political upheavals as nations wrestled with the relationship between citizen, church and state. The French Revolution, where supporters of democracy sought to overthrow the rule of monarchy, is often cited as one of the key events in the Enlightenment.



*The Storming of the Bastille – often cited as the beginning of The French Revolution*

## Empiricism

One of the key modes of thought that gained prominence in this period was **Empiricism**. Empiricism stresses the role of *experience* when developing one’s view of the world. It argues that methodical observation of the natural world is crucial to understanding.

### Empiricism, Science and Surgery

The principle of empiricism and the development of the science as a discipline are inseparable. Central to the scientific method is the concept that evidence in support of any viewpoint (or theory) must be *observable*.



*A medical researcher engaged in observation*

Scientists see it as part of their work to provide *observable evidence* that can bear out, or disprove theories. The strongest arguments are those that can be repeatedly tested against observable evidence.

John Hunter, who lived during the Enlightenment, was an early and vigorous advocate of scientific approaches in the cause of advancing medicine.



*John Hunter*

He encouraged his students to conduct experiments that would help them understand more clearly how the human

body reacted under different circumstances, and apply that knowledge to the treatment of patients. Hunter (and his contemporaries) recognised the value of gathering observations and preserving evidence even when they didn't understand or couldn't agree on the theories behind them. One important function of John Hunter's museum was to provide a collection of *evidence* for others to look at.

The attitudes towards medicine he helped pioneer are still held dear by the profession to this day. For instance, medical pathology is concerned, amongst other things, with the *scientific study* of disease processes, helping us to devise new ways to combat them.