

Surgery: Anaesthetics

What were the factors that influenced the discovery and acceptance of anaesthetics in surgery?

Until the mid-19th century, surgery was extremely painful and dangerous, so major operations were not possible. Surgeons would give patients a drug like opium or try to get them drunk before an operation, but there were no effective anaesthetics.

In 1799 Humphrey Davy discovered that the gas nitrous oxide ('laughing gas') could dull pain and published a pamphlet to bring attention to this. Unfortunately, most surgeons ignored this discovery. Those that did use it found that it did not work on everyone, so the search continued.

In October 1846, a Massachusetts dentist William Thomas Green Morton (1815-68), painlessly removed a tumour from a man's neck, after giving him ether, a gas which had been recently discovered. News of the operation reached Britain very quickly and by the end of the year, several successful operations had been performed using it.



Five surgeons participating in an amputation before anaesthetic



Early operation with anaesthetic

1853. In addition, positive press reports did much to combat peoples fears. Chloroform remained the most popular anaesthetic until 1900, when it was realised that it could damage the liver.

In 1847 James Simpson, the professor of midwifery at Edinburgh University discovered chloroform, which was quicker acting than ether and didn't have its side effects.

Surprisingly, many people opposed the introduction of anaesthetics. Some religious people thought that it was God's intention for women to feel pain during childbirth. Others worried that surgeons would not have the experience to give the right dose, and people sometimes did die from overdoses of ether and chloroform. It worried other people that they wouldn't know what the surgeon was doing to them while they were unconscious.

However, little opposition remained after Queen Victoria was given chloroform for the birth of her eighth child in

Think about this:

- Discovery is often the result of a chain of experimentation
- Royal approval helped bring about the acceptance of anaesthesia
- the administration of anaesthesia required expertise and standards before being accepted.