

How were the first effective anaesthetics discovered?

Task 1 - Copy out statements A-G in order of importance to show why James Simpson was experimenting with anaesthetic chemicals in the mid-19th century;

A. Pain had always been a major problem in surgery.	B. Science was important in the 19th century, especially the science of gases.	C. Popular lectures were given on scientific topics, especially gases. See Source B.
D. People experimented with gas. See Source C.	E. Equipment was developed to give ether or laughing gas (nitrous oxide) as anaesthetic. See Source D.	F. Ether produces coughing. Nitrous oxide (laughing gas) is only mildly anaesthetic.
G. A chronology of gas anaesthetics: 1795: Nitrous oxide recognised to dull pain. 1842: Ether used by dentist in USA. 1844: Nitrous oxide used by dentist in USA. 1846: Ether used in London in an operation to amputate a diseased thigh.		

Task 2 - Read the extract below that details how James Simpson made the discovery of an effective anaesthetic named, chloroform. Explain in writing, one way in which chloroform became popular in the 19th century and one way in which people were still concerned over its use.

Simpson developed effective anaesthetics in 1847 solving the problem of pain

- James Simpson was Professor of Midwifery at Edinburgh University.
- He used ether as an anaesthetic (pain relief) but wanted to discover a more effective method.
- In 1847, Simpson discovered chloroform was an effective anaesthetic after experimenting with friends.
- Simpson quickly used chloroform during childbirth and other operations.
- Simpson wrote articles encouraging other surgeons to use it. He argued that chloroform allowed surgeons to do longer or more complex operations.
- Chloroform was not accepted by everyone until Queen Victoria used it during childbirth in 1853. She later 'blessed' the drug.
- Some surgeons stopped using chloroform by 1870 because it did not reduce mortality (death) rates. Longer operations led to increased blood loss and deeper infections. It was also hard for an accurate dose to be given.

GCSE History - 'Britain: Health and the People, c1000 to the Present Day'

Task 3 - Read the reasons why chloroform took time to be accepted as an anaesthetic as they appear below. For each reason, copy them out into a table like the one below to explain which reason for opposition they fit into:

<u>Reason 1</u>	<u>Reason 2</u>
Chloroform was a new and untested gas. Nobody really knew how much of it to give to their patients as they did not yet understand the side effects.	In 1848 Hannah Greener died whilst being given Chloroform during an operation to remove her toe nail. The first death from Chloroform scared many people!
<u>Reason 3</u>	<u>Reason 4</u>
With patients asleep for longer surgeons attempted more dangerous operations which caused more infections and much more blood loss. The numbers of people dying after operations actually increased!	Some people believed that patients should be in pain during operations! They believed that God expected them to be in pain as a test of their faith.
<u>Reason 5</u>	<u>Reason 6</u>
Some people believed that restricting the pain during child birth was unnatural! They thought that pain whilst giving birth was a test of your religious and moral character!	Many army surgeons still believed that it was a sign of weakness to be asleep during an operation. They believed that a real man should withstand the pain whilst awake during an operation!

<u>Scientific / Medical Beliefs</u>	<u>Religious Beliefs</u>	<u>Old Fashioned Beliefs</u>

Task 4 - Some of these reasons for opposition link to each other. Can you name at least two examples of any of the reasons that link and then explain what forms the connection between each?