**19th Century Medicine – Edward Jenner & Vaccination**

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**Smallpox**
- In the 18th century, smallpox was one of the biggest killer diseases.
- Epidemics broke out in Britain every few years.
- There was a great danger of death but it also left physical scars.
- Poor people could not afford to have their house disinfected if they had the disease as the damage this cause would not be paid for.
- The poor sometimes hid smallpox cases as they feared that they might lose their jobs.

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**The Two Methods of Preventing Smallpox**

**Inoculation**
- A healthy person is made immune to smallpox using the pus from the sores of a sufferer with a mild form of smallpox (same disease).

**Vaccination**
- A healthy person is made immune to smallpox using the pus from the sores of a sufferer with cowpox (different disease which is much milder than smallpox).

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**The First Method of Prevention - Inoculation**
- In the 18th century inoculation was introduced to Britain from China.
- The Chinese had noticed that people who suffered a mild form of smallpox often survived during later epidemics.
- Inoculation involved spreading matter from a smallpox scab (from someone with a mild form of the disease) onto an open cut in the skin.
- This gave people a mild form of the disease and protected them from the full force of a severe smallpox attack.
- It reduced the likelihood of dying from smallpox but it was still risky.

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**The First Method of Prevention - Inoculation**
- Some people died of the mild dose they were given, others became carriers of the disease and probably spread smallpox to others.
- Some people refused the treatment.
- Inoculation was observed in Turkey by Lady Mary Wortley Montague, she had many friends who were doctors and they saw the potential of preventing smallpox and making money from inoculation.
- Inoculation became a big business, it was very expensive for people. The poor often could not afford inoculation.
19TH CENTURY MEDICINE – EDWARD JENNER & VACCINATION

**Medicine Through Time**

*NINETEENTH CENTURY*

**The Second Method of Prevention - Vaccination**

- Edward Jenner was a country doctor in Gloucestershire.

- Whilst working as an inoculator, Jenner had heard that milkmaids didn’t catch smallpox but they did catch cowpox (a much milder disease).

- Jenner investigated this and discovered that people who had already had cowpox didn’t catch smallpox. *Cowpox made them immune.*

- Jenner wondered whether he could use cowpox as a method of preventing from the smallpox, a very deadly disease.

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**Medicine Through Time**

*NINETEENTH CENTURY*

**The Second Method of Prevention - Vaccination**

- He developed a method of vaccination. This involved spreading matter from a cowpox scab onto an open cut in the skin.

- This would give the person being vaccinated the cowpox disease, and made immune to smallpox. They were protected from the deadly killer!

- In 1796 Jenner was ready to prove his theory.

- He took a young boy called James Phipps and injected him with pus from the sores of a milkmaid with cowpox. Jenner then injected James with the smallpox disease to make sure that James was immune to it and James didn’t catch the disease.

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**Medicine Through Time**

*NINETEENTH CENTURY*

**Vaccination - Its acceptance and its opposition**

- Soon after, doctors were using this technique in America. In 1805 Napoleon had all his soldiers vaccinated.

- In 1852 vaccination became compulsory in Britain.

**However, there was lots of opposition to Jenner and vaccination**

Doctors were afraid of losing money from inoculations. Some people were naturally conservative. Some patients died when doctors mixed up the vaccines and injected them with smallpox rather than cowpox.

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**Medicine Through Time**

*NINETEENTH CENTURY*

**Do you know your stuff?**

1. Give two reasons why people were afraid of catching smallpox

   - Left physical scar
   - Caused death.

2. Describe how inoculation works

   *Giving someone a mild form of the same disease*.

3. How did Jenner develop the smallpox vaccination?

   He knew milkmaids caught cowpox but didn’t get smallpox.

4. Give a reason that explains why there was so much opposition to Jenner and the smallpox vaccination

   Jenner couldn’t scientifically explain how it worked.

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