

FROM
1796

VACCINATION

Smallpox was a terrible disease that killed millions of people over many centuries. A young doctor invented vaccination—a true lifesaver! And you'll never guess why it wouldn't have been possible without a cow!

As the popular story goes, one day a young milkmaid told the British doctor Edward Jenner that she would never catch the pox. This made him curious. The milkmaid apparently explained to Jenner that she had already caught cowpox from her cow and this had made her immune to any other form of pox. "Immune" means that the body becomes insensitive to the causes of certain illnesses. Humans could be infected

by cowpox, but it was not dangerous. (It rarely happens, but even today it's still possible.) Jenner's passion for research was roused. From the milkmaid's account, he deduced that a body infected by cowpox must form defenses against any form of pox, and so he conducted a risky experiment. In 1796, he scratched open the blisters of another milkmaid who had caught cowpox. Her name was Sarah Nelmes. Jenner extracted some

The Latin for "cow" is *vacca*, and that was Jenner's reason for calling his invention "vaccination."

More and more people were immunized against smallpox, and yet the disease persisted until well into the twentieth century. In 1967, the World Health Organization decided to eradicate the disease. In Europe, immunization was already compulsory. Doctors traveled to India and Africa to immunize people in those areas where the disease was still rife.

pus and applied it to the upper arms of eight-year-old James Phipps, his gardener's son. Phipps became feverish and felt ill, but he quickly recovered. What Jenner then tried was very dangerous and would not be allowed today, but he was certain that it would not harm the boy. He repeated the process on Phipps, but this time with pus from smallpox—the deadly disease. He did not fall ill: he was immune. It was like a miracle! Jenner also successfully carried out his test on other children and adults. At first the Royal Society—the foremost scientific institution in Great Britain—was not convinced by Jenner's research and wanted evidence, so Jenner decided to publish his results himself. These were picked up all over the world. At last Jenner was made a member of the Royal Society, and the process that he called "vaccination" became the recognized method of protecting people against smallpox.

Today there are vaccines against many diseases, including mumps, measles, and German measles which used to be very dangerous for humans.

