

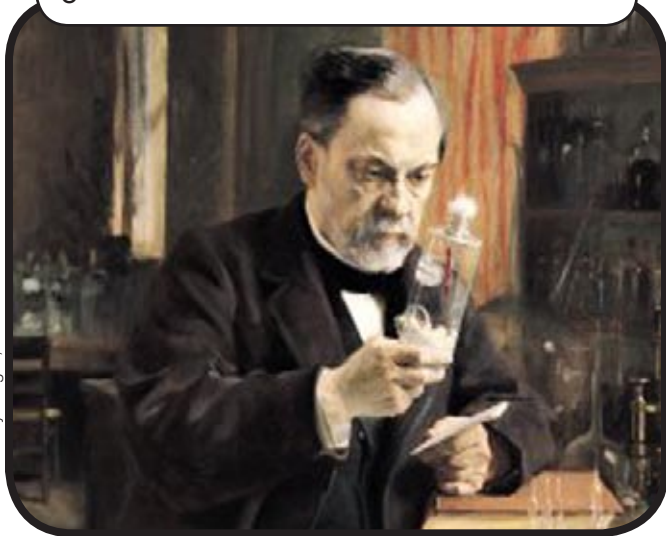
# A Short History of Vaccines

You probably do not jump with glee when you go to the doctor to get a flu shot. But a hundred years ago, you would have given anything for a flu shot. Between 1918 and 1919, from 50 to 100 million people died in six months—10% of those, young people—as a result of the flu. There was no such thing as a flu **vaccine** back then. In fact, the whole idea of getting vaccinated was a rather new one.

The first vaccine was invented in 1796, when scientist Edward Jenner noticed that people who caught a **virus** called cowpox

## Do You Know?

Many diseases, such as cancer and diabetes, do not spread from person to person. They are caused by damage to cells. Sometimes this happens because of a flaw in a person's own body. But many people still think, wrongly, that germs cause all illness.



Pasteurizing, the way we make milk safe to drink, was named for Louis Pasteur.

did not get sick with the human disease, smallpox. Jenner gave one patient a shot of cowpox, and a few weeks later, a shot of smallpox, too. That patient's immune system fought off the smallpox, proving that the shot had worked.

After receiving the shot of cowpox, the patient's immune system had made **antibodies** and special white blood cells that were also able to defend against smallpox.

Then in 1879, Louis Pasteur discovered that vaccines worked for other **diseases**, too, such as anthrax and rabies. Soon scientists developed vaccines for lots of diseases. There are millions of diseases in the world, and new ones keep being created. It seems we will always need more vaccines.



Edward Jenner vaccinated his own son against smallpox.

## ✓ Brain Check

- Describe how a vaccine works.
- Who developed vaccines?
- Why would you want a vaccine?