



General Vaccine

Frequently Asked Questions

October 2020

Are vaccines safe?

Yes. Vaccines are very safe. The United States' long-standing vaccine safety system ensures that vaccines are as safe as possible. Currently, the United States has the safest vaccine supply in its history. Millions of children safely receive vaccines each year.

What are the side effects of the vaccines?

Vaccines, like any medication, may cause some side effects. Most of these side effects are very minor, like soreness where the shot was given, fussiness, or a low-grade fever. These side effects typically only last a couple of days and are treatable.

What can I do if I am experiencing side effects?

You can apply a cool, wet washcloth on the sore area to ease discomfort, drink lots of fluids and if your arm is sore from the shot, moving your arm around can help. Serious reactions are very rare. However, if you or your child experiences any reactions that concern you, call the doctor's office.

What are the risks and benefits of vaccines?

- Benefits:
 - Vaccines can prevent infectious diseases that once killed or harmed many infants, children, and adults.
 - Vaccines help to safely develop immunity to a disease.
- Risks:
 - With any vaccination, there is a possibility for side effects. The side effects are almost always mild (redness and swelling at the injection site) and go away within a few days. Serious side effects after vaccination, such as a severe allergic reaction, are very rare and doctors and clinic staff are trained to deal with them.
 - Possible severe allergic reaction

What are the ingredients in vaccines and what do they do?

Vaccines contain ingredients that causes the body to develop immunity. Vaccines also contain very small amounts of other ingredients. All ingredients play necessary roles either in making the vaccine, or in ensuring that the final product is safe and effective.

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What Do Vaccines Do?

Vaccines work by preparing the body to fight illness. Vaccines contain either a dead or a weakened germ (or parts of it) that causes a particular disease.

The body practices fighting the disease by making antibodies that recognize specific parts of that germ. This permanent or longstanding response means that if someone is ever exposed to the actual disease, the antibodies are already in place and the body knows how to combat it and the person doesn't get sick. This is called immunity.

What is Immunity?

When disease germs enter your body, they start to reproduce. Your immune system recognizes these germs as foreign invaders and responds by making proteins called antibodies. These antibodies' first job is to help destroy the germs that are making you sick. They may not act fast enough to prevent you from becoming sick, but by eliminating the attacking germs, antibodies help you to get well.

The antibodies' second job is to protect you from future infections. They remain in your bloodstream, and if the same germs ever try to infect you again — even after many years — they will come to your defense. Only now that they are experienced at fighting these particular germs, they can destroy them before they have a chance to make you sick. This is immunity. It is why most people get diseases like measles or chickenpox only once, even though they might be exposed many times during their lifetime.

Vaccines offer a solution to this problem. They help you develop immunity without getting sick first. Vaccines are made from the same germs (or parts of them) that cause disease; but, the germs in vaccines are either killed or weakened so they won't make you sick.

Vaccines containing these weakened or killed germs are introduced into your body, usually by injection. Your immune system reacts to the vaccine in a similar way that it would if it were being invaded by the disease — by making antibodies. The antibodies destroy the vaccine germs just as they would the disease germs — like a training exercise. Then they stay in your body, giving you immunity. If you are ever exposed to the real disease, the antibodies are there to protect you.

Will the Immune System Be Weaker by Relying on a Vaccine?

No, the immune system makes antibodies against a germ, like the chickenpox virus, whether it encounters it naturally or is exposed to it through a vaccine.

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Can a Vaccine Give Someone the Disease It's Supposed to Prevent?

No. It's impossible to get the disease from any vaccine made with dead (killed) bacteria or viruses or just part of the bacteria or virus.

Only those immunizations made from weakened (also called attenuated) live viruses — like the chickenpox (varicella) and measles-mumps-rubella (MMR) vaccines — could possibly make a child develop a mild form of the disease. But it's almost always much less severe than if a child became infected with the disease-causing virus itself. However, for kids with weakened immune systems, such as those being treated for cancer, these vaccines may cause problems.

How are vaccines made and tested?

The development and evaluation of vaccines is one of the most sophisticated medical processes in the world. Vaccine development is highly regulated, requiring years of research and testing before it's licensed for public use. The vaccine is first tested in the laboratory; then, if proven successful and effective, it is tested in several clinical trials involving groups of volunteers. The plant where the vaccine is manufactured, as well as the process of making the vaccine, is also inspected. Even after a vaccine has been approved by the U.S. Food and Drug Administration, the vaccine continues to be analyzed regularly, and there are international systems in place to track outcomes.