



# HealthyPeople

## WHY VACCINES ARE SO IMPORTANT

Vaccination is one of the best ways parents can protect infants, children, and teens from 16 potentially harmful diseases. Vaccine-preventable diseases can be very serious, may require hospitalization, or even be deadly – especially in infants and young children. Immunizations have had an enormous impact on improving the health of children in the United States. Most parents today have never seen first-hand the devastating consequences that vaccine-preventable diseases have on a child, a family, or a community. While these diseases are not common in the U.S., they persist around the world. It is important that we continue to protect our children with vaccines because outbreaks of vaccine-preventable diseases like pertussis, mumps, and measles can and do occur in this country.

### MAKING THE VACCINE DECISION

As a parent, you want to protect your little ones from harm. Before you decide to vaccinate your baby, you may wish to know more about:

- how vaccines work
- how vaccines work with your baby's immune system
- vaccine side effects/risks
- vaccine ingredients
- vaccine safety

Ensure your baby gets vaccines according to the CDC's recommended schedule to give her the best protection against 14 serious diseases by age 2.



## HOW VACCINES PREVENT DISEASES

The diseases vaccines prevent can be dangerous, or even deadly. Vaccines reduce your child's risk of infection by working with their body's natural defenses to help them safely develop immunity to disease. When germs, such as bacteria or viruses, invade the body, they attack and multiply. This invasion is called an infection, and the infection is what causes illness. The immune system then has to fight the infection. Once it fights off the infection, the body has a supply of cells that help recognize and fight that disease in the future. These supplies of cells are called antibodies. Vaccines help develop immunity by imitating an

infection, but this "imitation" infection does not cause illness. Instead it causes the immune system to develop the same response as it does to a real infection so the body can recognize and fight the vaccine-preventable disease in the future. Sometimes, after getting a vaccine, the imitation infection can cause minor symptoms, such as fever. Such minor symptoms are normal and should be expected as the body builds immunity. As children get older, they require additional doses of some vaccines for best protection. Older kids also need protection against additional diseases they may encounter.

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### WHY DOES MY CHILD NEED TO BE VACCINATED?

Meningococcal vaccines help protect against the bacteria that cause meningococcal disease. Meningococcal disease refers to any illness that is caused by *Neisseria meningitidis* bacteria. The two most severe and common illnesses caused by these bacteria include infections of the fluid and lining around the brain and spinal cord (meningitis) and bloodstream infections (bacteremia or septicemia). Even if they get treatment, about 10 to 15 out of 100 people with meningococcal disease will die from it. Meningococcal disease can spread from person to person. Meningococcal disease can become very serious, very quickly. The meningococcal vaccine is the best way to protect teens from getting meningococcal disease.

### WHEN SHOULD MY CHILD BE VACCINATED FOR MENINGOCOCCAL?

All 11 to 12 year olds should be vaccinated with a single dose of a quadrivalent meningococcal conjugate vaccine. Older teens need a second shot when they are 16 years old so they stay protected when their risk is the highest. Teens who got meningococcal vaccine for the first time when they were 13, 14, or 15 years old should still get the booster shot when they are 16 years old. If your older teen didn't get the meningococcal shot at all, you should talk to their doctor about getting it as soon as possible.

### WHY DOES MY CHILD NEED HPV VACCINE?

Human papillomavirus (HPV) vaccine protects against cancers caused by HPV infection. HPV is a common virus that infects teens and adults. About 14 million people, including teens, become infected with HPV each year. HPV infection can cause cervical, vaginal, and vulvar cancers in women and penile cancer in men. HPV can also cause anal cancer, cancer of the back of the throat (oropharynx), and genital warts in both men

and women. All kids who are 11 or 12 years old should get two shots of HPV vaccine six to twelve months apart.

The benefits of HPV vaccination far outweigh any potential risk of side effects. It is important to tell the doctor or nurse if your child has any severe allergies, including an allergy to latex or yeast. HPV vaccine is not recommended for anyone who is pregnant.

### WHY DOES MY CHILD NEED TDAP VACCINE?

Babies and little kids get shots called DTaP to protect them from diphtheria, tetanus, and pertussis (whooping cough). But as kids get older, the protection from the DTaP shots starts to wear off. This can put your preteen or teen at risk for serious illness. The tetanus-diphtheria-acellular pertussis (Tdap) vaccine is a booster shot that helps protect your preteen or teen from the same diseases that DTaP shots protect little kids from.

Tetanus is caused by a toxin (poison) made by bacteria found in soil. The bacteria enter the body through cuts, scratches, or puncture wounds in the skin. As many as 1 out of 5 people who get tetanus dies.

Diphtheria is not as common as tetanus but can be very dangerous. It spreads from person to person through coughing or sneezing. It causes a thick coating on the back of the nose or throat that can make it hard to breathe or swallow. It can also cause paralysis and heart failure. About 1 out of 10 people who get diphtheria will die from it.

Pertussis (whooping cough) spreads very easily through coughing and sneezing. It can cause a bad cough that makes someone gasp for air after coughing fits. Whooping cough can be deadly for babies who are too young to have protection from their own vaccines. Often babies get whooping cough from their older brothers or sisters, like preteens or teens, or other people in the family.

