

CHILDHOOD VACCINATIONS

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INFORMATION**

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Childhood vaccination is considered one of the greatest achievements in the history of public health. It is the process of introducing a vaccine into a child's body to produce immunity to specific diseases. Vaccination is a safe and effective way to ensure a child grows up healthy. If you have questions about a specific vaccine, the best person to talk to is your pediatrician or a healthcare professional, as they can provide guidance based on your child's health history.

Childhood vaccinations are essential, safe, and effective tools that protect children from serious, potentially fatal diseases by stimulating the immune system. Recommended schedules, starting from birth, prevent illnesses like measles, polio, pertussis, and hepatitis B.

Key Childhood Vaccinations (CDC/International Standards)

- Hepatitis B (HepB): Birth, 1-2 months, 6-18 months.
- DTaP (Diphtheria, Tetanus, Pertussis): 2, 4, 6 months, 15-18 months, and 4-6 years.
- Hib (Haemophilus influenzae type b): 2, 4, 6 months, and 12-15 months.
- IPV (Inactivated Poliovirus): 2, 4, 6-18 months, 4-6 years.
- PCV (Pneumococcal Conjugate Vaccine): 2, 4, 6 months, 12-15 months.
- Rotavirus (RV): 2, 4, 6 months.

- MMR (Measles, Mumps, Rubella): 12-15 months, 4-6 years.
- Varicella (Chickenpox): 12-15 months, 4-6 years.
- Influenza (Flu): Annually, starting at 6 months.
- HPV (Human Papillomavirus): Recommended to start at 9–12 years.

Part of taking care of kids is setting them up for a healthy future. Vaccines play a big part in health. Children get vaccines for illnesses such as diphtheria, rotavirus, polio, tetanus, whooping cough, also called pertussis, and others in the first year of life. If these diseases seem uncommon, it's because vaccines are doing their job.

In general, it is better for the child to prevent sickness through vaccination rather than through an infection. Getting infected with a germ may provide some people with a longer-lasting immune response, but this comes with a higher risk. For example, getting a bacterial infection called *Haemophilus influenzae* type b (Hib) could lead to long-term deafness, brain damage or even death.

Childhood vaccines protect kids from serious diseases and complications. Vaccines also lower the chance of spreading a disease.

Most vaccine side effects are not dangerous. Any medicine, including vaccines, can cause side effects. Most of the time, these side effects are minor. Some examples are a low-grade fever, headache, fussiness or soreness at the injection site. Rarely, a child might experience a severe side effect, such as an allergic reaction or a seizure. Caregivers and healthcare professionals watch for these rare side effects after vaccination. Of course, healthcare professionals don't give vaccines to children who have known allergies to specific parts of a vaccine. And if your child has a life-threatening reaction to one vaccine, further doses of that vaccine won't be given. The risk of a vaccine causing serious harm or death is very small. The benefits of getting a vaccine are much greater than the possible side effects for almost all children.

Most babies are born with developing immune systems. Vaccination makes sure a baby has as much protection from disease and disease complications as is safely possible. It also helps prevent babies and children from spreading illness to others. Vaccines for children are timed carefully. Healthcare professionals give children vaccines when protection inherited from the mother fades and the child's immune system is ready for vaccination. The care team gives vaccines to kids before they come in contact with the germs that cause real infections.

Hepatitis B is a serious liver infection caused by the hepatitis B virus (HBV). For most people, hepatitis B is short term, also called acute. Acute hepatitis B lasts less than six months. But for others, the infection lasts more than six months and is called chronic. Chronic hepatitis



B raises the risk of liver failure, liver cancer and serious scarring of the liver called cirrhosis. A vaccine can prevent infection with the hepatitis B virus. For those who get infected, treatment depends on whether the infection is acute or chronic. Some people need medicine. Others with serious liver damage from a chronic infection need a liver transplant. If you're infected, taking certain safety measures can help prevent spreading the virus to others.

Symptoms of acute hepatitis B range from mild to serious. The symptoms usually start about 1 to 4 months after you've been infected with HBV. But you could notice them as early as two weeks after you're infected. Some people with acute or chronic hepatitis B may not have any symptoms, especially young children.

Hepatitis B symptoms may include:

- Pain in the stomach area, also called the abdomen.
- Dark urine.
- Fever.
- Joint pain.
- Loss of appetite.
- Upset stomach and vomiting.
- Weakness and extreme tiredness.
- Jaundice, which is a yellowing of the whites of the eyes and the skin. Depending on skin color, this change may be harder or easier to see.

Diphtheria, tetanus, and pertussis (DTP/DTaP/Tdap) vaccines protect against three serious bacterial infections. DTaP is for children under 7, while Tdap is for adolescents and adults, typically given in 5 doses in early childhood followed by adolescent/adult boosters every 10 years. They are highly effective, with common side effects being mild fever and pain at the injection site.

- Target Diseases: Diphtheria (throat infection), Tetanus (muscle spasms), and Pertussis (whooping cough).

- Active Ingredients: The vaccine is a toxoid vaccine containing inactivated diphtheria and tetanus toxins, along with components of the pertussis bacteria (acellular pertussis).

The rotavirus vaccine is a highly effective, oral, live-attenuated vaccine given to infants to prevent severe diarrhea and dehydration caused by rotavirus. It reduces hospitalization rates by 86–93% and is usually administered in two or three doses between 6 weeks and 8 months of age.



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