Infant Immunizations FAQs

It's natural you have questions about your child's vaccines. Read answers to common questions to learn more about vaccine safety, the recommended schedule, how vaccines protect your child from 14 diseases by age two, and more. CDC regularly updates this document to ensure frequently asked questions from parents are answered with the most current information.

Q: Are vaccines safe?

A: 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. The most common side effects are typically very mild, such as pain or swelling at the injection site.

Q: What are the side effects of the vaccines? How do I treat them?

A: 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. For example, you can apply a cool, wet washcloth on the sore area to ease discomfort.

Serious reactions are very rare. However, if your child experiences any reactions that concern you, call the doctor's office.

Q: What are the risks and benefits of vaccines?

A: Vaccines can prevent infectious diseases that once killed or harmed many infants, children, and adults. Without vaccines, your child is at risk for getting seriously ill and suffering pain, disability, and even death from diseases like measles and whooping cough. The main risks associated with getting vaccines are side effects, which 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. **The disease-prevention benefits of getting vaccines are much greater than the possible side effects for almost all children.** The only exceptions to this are cases in which a child has a serious chronic medical condition like cancer or a disease that weakens the immune system, or has had a severe allergic reaction to a previous vaccine dose.

Q: Is there a link between vaccines and autism?

A: No. Scientific studies and reviews continue to show no relationship between vaccines and autism.

Some people have suggested that thimerosal (a compound that contains mercury) in vaccines given to infants and young children might be a cause of autism. Others have suggested that the MMR (measles- mumps-rubella) vaccine may be linked to autism. However, numerous scientists and researchers have studied and continue to study the MMR vaccine and thimerosal, and reach the same conclusion: there is no link between MMR vaccine or thimerosal and autism.

Q: Can vaccines overload my baby's immune system?

A: Vaccines do not overload the immune system. Every day, a healthy baby's immune system successfully fights off thousands of germs. Antigens are parts of germs that cause the body's immune system to go to work to build antibodies, which fight off diseases.

The antigens in vaccines come from the germs themselves, but the germs are weakened or killed so they cannot cause serious illness. **Even if babies receive several vaccinations in one day, vaccines contain only a tiny fraction of the antigens they encounter every day in their environment.** Vaccines give your child the antibodies they need to fight off serious vaccine-preventable diseases.

Q: Why are so many doses needed for each vaccine?

A: Getting every recommended dose of each vaccine provides your child with the best protection possible. Depending on the vaccine, your child will need more than one dose to build high enough immunity to prevent disease or to boost immunity that fades over time. Your child may also receive more than one dose to make sure they are protected if they did not get immunity from a first dose, or to protect them against germs that change over time, like flu. Every dose is important because each protects against infectious diseases that can be especially serious for infants and very young children.

Q: Why do vaccines start so early?

A: The recommended schedule protects infants and children by providing immunity early in life, before they come into contact with life-threatening diseases. Children receive immunization early because they are susceptible to diseases at a young age. The consequences of these diseases can be very serious, even life-threatening, for infants and young children.

Q: What do you think of delaying some vaccines or following a non-standard schedule?

A: Children do not receive any known benefits from following schedules that delay vaccines. Infants and young children who follow immunization schedules that spread out or leave out shots are at risk of developing diseases during the time you delay their shots. Some vaccine-preventable diseases remain common in the United States and children may be exposed to these diseases during the time they are not protected by vaccines, placing them at risk for a serious case of the disease that might cause hospitalization or death.

Q: Haven't we gotten rid of most of these diseases in this country?

A: Some vaccine-preventable diseases, like pertussis (whooping cough) and chickenpox, remain common in the United States. On the other hand, other diseases vaccines prevent are no longer common in this country because of vaccines. **However, if we stopped vaccinating, the few cases we have in the United States could very quickly become tens or hundreds of thousands of cases.** Even though many serious vaccine-preventable diseases are uncommon in the United States, some are common in other parts of the world. Even if your family does not travel internationally, you could come into contact with international travelers anywhere in your community. Children who don't receive all vaccinations and are exposed to a disease can become seriously sick and spread it through a community.

CS HCVG15-CHD-152

Infant Immunizations FAQs

Q: What are combination vaccines? Why are they used?

A: Combination vaccines protect your child against more than one disease with a single shot. They reduce the number of shots and office visits your child would need, which not only saves you time and money, but also is easier on your child.

Some common combination vaccines are Pediarix® which combines DTap, Hep B, and IPV (polio) and ProQuad® which combines MMR and varicella (chickenpox).

Q: Can't I just wait until my child goes to school to catch up on immunizations?

A: Before entering school, young children can be exposed to vaccine-preventable diseases from parents and other adults, brothers and sisters, on a plane, at child care, or even at the grocery store. Children under age 5 are especially susceptible to diseases because their immune systems have not built up the necessary defenses to fight infection. **Don't wait to protect your baby and risk getting these diseases when he or she needs protection now.**

Q: Why does my child need a chickenpox shot? Isn't it a mild disease?

A: Your child needs a chickenpox vaccine because chickenpox can actually be a serious disease. In many cases, children experience a mild case of chickenpox, but other children may have blisters that become infected. Others may develop pneumonia. There is no way to tell in advance how severe your child's symptoms will be.

Before vaccine was available, about 50 children died every year from chickenpox, and about 1 in 500 children who got chickenpox was hospitalized.

Q: My child is sick right now. Is it okay for her to still get shots?

A: Talk with your child's doctor, but children can usually get vaccinated even if they have a mild illness like a cold, earache, mild fever, or diarrhea. If the doctor says it is okay, your child can still get vaccinated..

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

A: Vaccines contain ingredients that cause 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.**

Q: Don't infants have natural immunity? Isn't natural immunity better than the kind from vaccines?

A: Babies may get some temporary immunity (protection) from mom during the last few weeks of pregnancy, but only for diseases to which mom is immune. Breastfeeding may also protect your baby temporarily from minor infections, like colds. **These antibodies do not last long, leaving your baby vulnerable to disease.**

Natural immunity occurs when your child is exposed to a disease and becomes infected. It is true that natural immunity usually results in better immunity than vaccination, but the risks are much greater. A natural chickenpox infection may result in pneumonia, whereas the vaccine might only cause a sore arm for a couple of days.

Q: Can't I just wait to vaccinate my baby, since he isn't in child care, where he could be exposed to diseases?

A: No, even young children who are cared for at home can be exposed to vaccine preventable diseases, so it's important for them to get all their vaccines at the recommended ages. Children can catch these illnesses from any number of people or places, including from parents, brothers or sisters, visitors to their home, on playgrounds or even at the grocery store. Regardless of whether or not your baby is cared for outside the home, she comes in contact with people throughout the day, some of whom may be sick but not know it yet.

If someone has a vaccine preventable disease, they may not have symptoms or the symptoms may be mild, and they can end up spreading disease to babies or young children. Remember, many of these diseases can be especially dangerous to young children so it is safest to vaccinate your child at the recommended ages to protect her, whether or not she is in child care.

Q: Do I have to vaccinate my baby on schedule if I'm breastfeeding him?

A: Yes, even breastfed babies need to be protected with vaccines at the recommended ages. The immune system is not fully developed at birth, which puts newborns at greater risk for infections.

Breast milk provides important protection from some infections as your baby's immune system is developing. For example, babies who are breastfed have a lower risk of ear infections, respiratory tract infections, and diarrhea. However, breast milk does not protect children against all diseases. Even in breastfed infants, vaccines are the most effective way to prevent many diseases. Your baby needs the long-term protection that can only come from making sure he receives all his vaccines according to the CDC's recommended schedule.

Q: What's wrong with delaying some of my baby's vaccines if I'm planning to get them all eventually?

A: Young children have the highest risk of having a serious case of disease that could cause hospitalization or death. Delaying or spreading out vaccine doses leaves your child unprotected during the time when they need vaccine protection the most. For example, diseases such as Hib or pneumococcus almost always occur in the first 2 years of a baby's life. And some diseases, like Hepatitis B and whooping cough (pertussis), are more serious when babies get them at a younger age. Vaccinating your child according to the CDC's recommended immunization schedule means you can help protect him at a young age.

Q. I got the whooping cough and flu vaccines during my pregnancy. Why does my baby need these vaccines too?

A: The protection (antibodies) you passed to your baby before birth will give him some early protection against whooping cough and flu. However, these antibodies will only give him short-term protection. It is very important for your baby to get vaccines on time so he can start building his own protection against these serious diseases.