All About the Recommended Immunization Schedules

Top disease experts—including pediatricians—work together throughout the year to update the Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger.

The schedule is approved by the American Academy of Pediatrics, the Centers for Disease Control and Prevention and other health care organizations. It is based on ongoing review of the most recent scientific data for each of the recommended vaccines and other immunizations. To be included in the recommended schedule, the vaccines must be licensed by the Food and Drug Administration.

The schedule also recommends the age when children and teens should receive each vaccine or immunization.

View recommended immunizations by age here:

- **Birth to 6 years**
- **7 to 18 years**

Following this schedule gives children the best protection from diseases. If you have questions about vaccines, don't hesitate to ask your pediatrician! They know your child's health history and can talk with you about specific vaccines.

Should all children and teens follow the same recommended vaccine schedule?

Yes. **The schedule is considered the ideal schedule for healthy children.** And there are very few, rare exceptions. For example, if your child has a chronic condition or takes medicine that weakens their immune system, they may need a booster dose or a different type of vaccine. **Your pediatrician can discuss what approach is best.**

A vaccine may be given in one or more doses.

The timing for each dose of a vaccine is based on:

- what age a child's immune system provides optimal protection after vaccination,
- the earliest possible time to provide protection balanced with the age the child is at highest risk for a disease.

Your pediatrician stays updated about any changes to the immunization schedule.

What if my child missed a shot or is behind schedule?

Getting your child vaccinated on the recommended schedule is the best way to protect them and keep them healthy. If your child misses a shot, you don't need to start over. Call your pediatrician's office, and they can schedule the next shot.

Can the shots be spread out over a longer period of time?

It's **not** a good idea to spread out or delay vaccines, for several reasons. Children need to get their vaccines on schedule so they can benefit from all the protection that vaccines give. Young babies are hospitalized and die more often from the diseases we are trying to prevent with vaccines, so it is important to vaccinate them as soon as possible.

Also, the recommended schedule is designed to work best with a child's immune system at certain ages and at specific time intervals between doses. There is no research to show that a child would be equally protected against diseases with a very different schedule. Also, there is no scientific reason why spreading out the shots would be safer. But we do know that any length of time without immunizations is a time without protection against vaccine preventable diseases.

Researchers are always studying how long vaccine protection lasts, how many doses we need and how much time between doses works best. That is why your child needs the flu shot every year, but for another vaccine, your child may develop lifelong protection from two or more doses spaced months or years apart.

Pediatricians want you to have reliable, complete and science-based information. This allows you to make the best decision for your child about vaccination. Unfortunately, there are a few doctors who go against the existing science, often for personal gain, such as selling books or advertisements on their websites. The overwhelming majority of pediatricians in the United States strongly support following the recommended schedule. Most parents follow the schedule for their kids.

What is community immunity?

When most people in the community have immunity to a disease, it is less likely for that disease to spread. If many people in a community decide to follow an alternative schedule or skip vaccines, diseases can spread much more quickly.

Does it overwhelm a child's immune system to give multiple shots in one visit?

No. We know vaccines are safe—including when multiple shots are given together. Researchers continue to study vaccines alongside other vaccines. Millions of children have safely received vaccines together.

Infants and children are exposed to many germs every day. Their immune systems respond and get rid of germs, also called antigens, to keep the body healthy. Your child encounters more germs and bacteria every day by crawling around the house, eating and breathing. Most children are exposed to about 2,000-6,000 antigens every day. That is way more than the antigens in any combination of vaccines on the current schedule.

So, children's immune systems are not overwhelmed by vaccines.

Should my child get vaccines if they are sick?

If your child is sick, talk with your pediatrician. Often, they can still get vaccinated even if they have a mild illness like a cold, earache, low fever or diarrhea. Vaccination during a mild illness is safe and effective. It does not put any extra burden on the immune system. And catching up on vaccines that same day saves time because your child will not need to make an extra appointment. Your pediatrician will be happy to talk with you about this.

Why does my child still need a vaccine if these diseases are mostly gone?

Smallpox is the only disease that has been eliminated completely by vaccines.

We still need vaccines for the other diseases that can spread in our communities. Vaccines equip our body's immune system so it can recognize, respond and get rid of the infection.

For example, the measles, mumps, rubella (MMR) vaccine has worked very well in the U.S. for decades. Lately, fewer people have had all recommended doses of MMR vaccine.

Most years there are about 100 people in the U.S. who get measles. In 2019, more than 1,200 measles cases were reported in the U.S. Most of the people who got measles were not vaccinated.

Mumps cases and outbreaks in the United States also have increased since 2006. That's why some people who are at risk of mumps may need an additional dose of MMR vaccine if there is a mumps outbreak in their community.

It is because of vaccines and community immunity that children rarely get serious diseases like tetanus, measles, rubella, meningitis and polio. We cannot predict which children will have a mild case and who will get severely sick when infected. So, we must continue using every tool to protect children, including vaccines.

Can you get a disease from a vaccine?

No. A vaccine does not cause illness in healthy people because the virus or bacteria in the vaccine is either not alive or very, very weak.

Vaccines have active ingredients that give information to your child's immune system, so it knows how to create its own antibodies. Here's how that works.

Similar to how a child learns to read and write, the immune system reads and remembers details about the disease from each vaccine. A vaccine teaches your body's immune system to recognize the virus or bacteria so you can build up your own immunity against that disease. All it takes is a tiny amount of active ingredients in each vaccine for the immune system to understand and remember what to do when it sees the actual virus or bacteria.

People with weakened immune systems: There are some vaccines that use a live, weakened virus. This type of vaccine very rarely can cause illness for people who have cancer or other autoimmune diseases. Their doctor may instead provide a different form of the vaccine or advise them to not get that one vaccine.

Do vaccines cause autism?

No, vaccines do not cause autism. Children get several vaccines between ages one and two. This is also the time some children start to show symptoms of autism. Although they happen around the same time, one does not cause the other. Science has confirmed that they are not related.

What if my child has a side effect from a vaccine?

Side effects are a normal and expected part of how vaccines work. Sometimes when you get a vaccine, you may get a low fever or your body aches. This is a sign your body's immune system is working to get stronger. After the vaccine does its job, it quickly leaves your body. The side effects go away shortly, too.

Very rarely, reactions can occur from a vaccine. But the risk of the disease itself is far greater.

Remember

Call your pediatrician if you have any questions about vaccines. They can tell you what vaccines your child needs to stay healthy, and they know your child's health history.

More information

- Vaccines Your Child Needs By Age 6
- Recommended Childhood and Adolescent Immunization Schedule (CDC)
- Taking the Fear and Pain Out of Needles—For You And Your Child
- Vaccines for Children

https://www.healthychildren.org/English/safety-prevention/immunizations/Pages/Recommended-Immunization-Schedules.aspx

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