



The Childhood Immunization Schedule: Why Is It Like That?

Q1: Who decides what immunizations children need?

A: Each year, top disease experts and doctors who care for children work together to decide what to recommend that will best protect U.S. children from diseases. The schedule is evaluated each year based on the most recent scientific data available. Changes are announced in January, if needed. The schedule is approved by the American Academy of Pediatrics, the Centers for Disease Control and Prevention, and the American Academy of Family Physicians.

Q2: How are the timing and spacing of the shots determined?

A: Each vaccine dose is scheduled using two factors. First, it is scheduled for the age when the body's immune system will work the best. Second, it is balanced with the need to provide protection to infants and children at the earliest possible age.

Q3: Why are there so many doses?

A: Researchers are always studying how well vaccines work. For many vaccines three or four doses are needed to fully protect your child. The doses need to be spaced out a certain amount to work the best.

Q4: Why is the schedule "one size fits all?" Aren't there some children who shouldn't receive some vaccines?

A: Your child's health and safety are very important to your child's doctor. The schedule is considered the ideal schedule for healthy children but there may be exceptions. For example, your child might not receive certain vaccines if she has allergies to an ingredient in the vaccine, or if she has a weakened immune system due to illness, a chronic condition, or another medical treatment. Sometimes a shot needs to be delayed for a short time, and sometimes not given at all.

Your pediatrician stays updated about new exceptions to the immunization schedule. This is one reason your child's complete medical history is taken at the pediatrician's office, and why it is important for your child's health care providers to be familiar with your child's medical history.

Q5: Why can't the shots be spread out over a longer period of time? There are 25 shots recommended in the first 15 months of life; why not spread these out over 2 or 3 years?

A: First, you would not want your child to go unprotected that long. Babies are hospitalized and die more often from some diseases, so it is important to vaccinate them as soon as it is safe. Second, the recommended schedule is designed to work best with a child's immune system at certain ages and at specific times. 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.



Q6: I've seen another schedule in a magazine that allows the shots to be spread out. It was developed by a pediatrician. Why can't I follow that schedule? My child would still get his immunizations in time for school.

A: There is no scientific basis for such a schedule. No one knows how well it would work to protect your child from diseases. And if many parents in any community decided to follow such schedule, diseases will be able to spread much more quickly. Also, people who are too sick or too young to receive vaccines are placed at risk when they are around unvaccinated children.

For example, following one alternative schedule would leave children without full polio protection until age 4. Yet it would take only one case of polio to be brought into the U.S. for the disease to take hold again in this country. This is a highly infectious disease that can cause serious harm--even death. The reason we recommend vaccines when we do is because young children are more vulnerable to these diseases.

Pediatricians want parents to have reliable, complete, and science-based information, so that they can make the best decision for their child about vaccination.

Q7: Isn't it possible that my child has natural immunity to one or more diseases? If he does, can't he skip the shot?

A: Tests that check for immunity to certain diseases do not work well in young children.

Q8: Isn't it overwhelming to a child's immune system to give so many shots in one visit?

A: Infants and children are exposed to many germs every day just by playing, eating, and breathing. Their immune systems fight those germs, also called antigens, to keep the body healthy. The amount of antigens that children fight every day (2,000-6,000) is much more than the antigens in any combination of vaccines on the current schedule (150 for the whole schedule). So children's immune systems are not overwhelmed by vaccines.

Q9: There are no shots given at 9 months, other than maybe flu vaccine or catch-up vaccines. Why not give some at that visit instead of at 6 months or 12 months?

A: Waiting until 9 months would leave the child unprotected from some diseases, but 9 months is too early for some of the 12-18 month vaccines. Some infants might have a bit of protection left from their mother during the pregnancy, and that protection could make the vaccine less effective.

From your doctor

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If you have any questions or concerns, feel free to ask your pediatrician.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.