



Facts for Parents About Vaccine Safety

Why are vaccines important?

Immunizations protect children. Vaccine-preventable diseases can have dangerous consequences, including seizures, brain damage, blindness and even death. Because of the success of the national immunization program, many young parents today have never seen a case of one of these illnesses, but measles, meningitis, chickenpox, pertussis and other diseases exist in the world and would re-emerge here if immunization rates fell. For example, recent outbreaks of measles in the U.S. were traced to unvaccinated children who became infected while traveling in Europe. Likewise, it would only take one case of polio from another country to bring the disease back to the U.S. if children are not protected by vaccination.

Are vaccines safe?

Yes. Today's vaccines are safer than any in history. Vaccines contain antigens, which are either live but very weakened viruses, inactivated viruses, or small parts of bacteria or viruses that prompt the body to produce protective antibodies without causing the disease. Even though children receive more vaccines now, the total number of antigens is less because today's vaccines are more refined than older versions. At a very young age, children's immune systems are equipped to respond to many antigens at the same time, including those in vaccines as well as the ones they encounter in their daily activities such as eating, breathing and playing.

In addition to antigens, vaccines contain ingredients to prevent contamination and improve effectiveness. These ingredients have been found to be safe in humans in the quantities given in vaccines, which is much less than children are exposed to in their environment, food and water. Valid scientific studies have shown there is no link between autism and thimerosal, a mercury-based preservative once used in several vaccines (and still used in some flu vaccine). However, since thimerosal was removed from childhood vaccines in 2001, autism rates have actually increased, supplying further evidence that thimerosal does not cause autism.

Before a vaccine is licensed, it is studied in thousands of children and in combination with other vaccines. After licensure, the federal government continues to monitor a vaccine's safety. This continuous monitoring ensures researchers will uncover any rare side effects, even if they affect only a small number of children. For example, a rotavirus vaccine was withdrawn in 1999 after it was linked to intestinal blockages in about 100 children. This vaccine was replaced by a new and safer product. Today's recommended vaccines have been shown to be safe and effective for millions of children.

Can I delay or skip vaccines?

It is not a good idea to skip or delay vaccines, as this will leave your child vulnerable to diseases for a longer time. Children are most vulnerable to complications from disease in their early years of life, when vaccines provide protection, and some vaccines produce a better immune response at particular ages. Parents should follow the schedule provided by the U.S. Centers for Disease Control and Prevention, the American Academy of Pediatrics and the American Academy of Family Physicians, which is designed by experts to ensure maximum protection and safety for children at various ages. This schedule allows for some flexibility to delay certain shots when advised by a child's pediatrician due to illness, certain chronic conditions or other medical reasons. Parents should discuss any concerns with their child's pediatrician.

More information is available at <http://www.aap.org/advocacy/releases/autismparentfacts.htm> and www.cdc.gov/vaccines.



Vaccine Safety: The Facts

Why vaccinate? Vaccines save lives and protect against the spread of disease. If you decide not to immunize your child, you put your child at risk. Your child could catch a disease that is dangerous or deadly. Getting vaccinated is much better than getting the disease.

Your pediatrician knows that you care about your child's health and safety. That's why you need to get all the scientific facts from a medical professional you can trust before making any decisions based on stories you may have seen or heard on TV, the Internet, or from other parents. Your pediatrician cares about your child too and wants you to know that...

- **Vaccines work.** They have kept children healthy and have saved millions of lives for more than 50 years. Most childhood vaccines are 90% to 99% effective in preventing disease. And if a vaccinated child does get the disease, the symptoms are usually less serious than in a child who hasn't been vaccinated. There may be mild side effects, like swelling where the shot was given, but they do not last long. And it is rare for side effects to be serious.
- **Vaccines are safe.** All vaccines must be tested by the Food and Drug Administration (FDA). The FDA will not let a vaccine be given unless it has been proven to be safe and to work well in children. The data get reviewed again by the Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics, and the American Academy of Family Physicians before a vaccine is officially recommended to be given to children. Also, the FDA monitors where and how vaccines are made. The places where vaccines are made must be licensed. They are regularly inspected and each vaccine lot is safety-tested.
- **Vaccines are necessary.** Your pediatrician believes that your children should receive all recommended childhood vaccines. In the United States vaccines have protected children and continue to protect children from many diseases. However, in many parts of the world many vaccine-preventable diseases are still common. Since diseases may be brought into the United States by Americans who travel abroad or from people visiting areas with current disease outbreaks it's important that your children are vaccinated.

Also, children with certain health problems may not be able to get some vaccines or may need to get them later. Since each child is different, your child's doctor will know what is best for your child. You should get information about each vaccine at the doctor's office. Ask your child's doctor if you don't understand what you've read.



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- **Vaccines are studied.** To make sure the vaccine continues to be safe, the FDA and the CDC created the Vaccine Adverse Event Reporting System (VAERS). All doctors must report serious side effects of vaccines to VAERS so they can be studied. Parents can also file reports with VAERS. For more information about VAERS, visit www.vaers.hhs.gov or call the toll-free VAERS information line at 800/822-7967.

Based on VAERS reports, vaccine safety professionals continuously look for any problem with a vaccine, study the problem, and decide what to do. And if there is a problem, changes are made as soon as possible. For example,

- If a vaccine is no longer safe, it is no longer given.
- If there are new side effects, safety alerts are sent out to your health care providers.

Another way the CDC checks vaccine safety is by studying information about side effects collected from 8 large insurance companies. The Vaccine Safety Datalink (VSD) helps identify if there are any serious problems or safety issues from the records of thousands of children.

In the rare case that a child has serious side effects to a vaccine, parents can contact the National Vaccine Injury Compensation Program (VICP) at 800/338-2382 or www.hrsa.gov/vaccinecompensation. This federal program was created to help pay for the care of people who have been harmed.

Resources

American Academy of Pediatrics
www.aap.org
www.cispimmunize.org

Centers for Disease Control and Prevention
www.cdc.gov/vaccines

Food and Drug Administration
www.fda.gov

National Network for Immunization Information
www.immunizationinfo.org

From your doctor

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

Please note: Listing of resources does not imply an endorsement by the American Academy of Pediatrics (AAP). The AAP is not responsible for the content of the resources mentioned in this publication. Phone numbers and Web site addresses are as current as possible, but may change at any time.

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.



Información para padres acerca de la seguridad de las vacunas

¿Por qué son importantes las vacunas?

Las inmunizaciones protegen a los niños. Las enfermedades que se pueden prevenir con vacuna pueden tener consecuencias peligrosas, entre ellas convulsiones, daño del cerebro, ceguera e incluso la muerte. Debido al éxito del programa de inmunización nacional, muchos padres jóvenes nunca han visto un caso de estas enfermedades, pero el sarampión, la meningitis, la varicela, la tos ferina y otras enfermedades existen en el mundo y volverían a surgir aquí si los índices de inmunización disminuyeran. Por ejemplo, al seguir la pista de los brotes recientes de sarampión en Estados Unidos se llegó a niños no vacunados que quedaron infectados mientras viajaban por Europa. De igual modo, sólo se requeriría un caso de poliomielitis proveniente de otro país para traer de regreso la enfermedad a Estados Unidos si los niños no estuvieran protegidos mediante vacunación.

¿Las vacunas son seguras?

Sí. En la actualidad las vacunas son más seguras que cualquiera en el pasado. Las vacunas contienen antígenos, que son virus vivos pero muy debilitados, virus inactivados, o pequeñas partes de bacterias o virus, que hacen que el cuerpo produzca anticuerpos protectores sin causar la enfermedad. Aun cuando ahora los niños reciben más vacunas, el número total de antígenos es menor, porque las vacunas actuales están más refinadas que las versiones más antiguas. A una edad muy joven, el sistema inmunitario de los niños está equipado para responder a muchos antígenos al mismo tiempo, incluso los que están en las vacunas, así como los que encuentran en sus actividades diarias, como comer, respirar y jugar.

Además de antígenos, las vacunas contienen ingredientes para prevenir contaminación y mejorar la eficacia. Se ha encontrado que estos ingredientes son seguros en seres humanos en las cantidades que se administran en las vacunas, que son mucho menores que aquellas a las cuales los niños quedan expuestos en su ambiente, los alimentos y el agua. Estudios científicos válidos han mostrado que no hay enlace entre el autismo y el timerosal, un conservador a base de mercurio alguna vez usado en varias vacunas (y que todavía se usa en algunas vacunas contra la gripe). Sin embargo, desde 2001, año en que el timerosal se eliminó de las vacunas que se administran durante la niñez, los índices de autismo en realidad han aumentado, lo que proporciona más evidencia de que el timerosal no causa autismo.

Antes de que se autorice una vacuna, se estudia en miles de niños y en combinación con otras vacunas. Después de que se emite la licencia, el gobierno federal sigue vigilando la seguridad de una vacuna. Esta vigilancia continua asegura que los investigadores descubrirán cualquier efecto secundario raro, incluso si sólo afecta a un pequeño número de niños. Por ejemplo, en 1999 se retiró una vacuna contra rotavirus después de que se enlazó con bloqueo intestinal en alrededor de 100 niños. Esta vacuna se reemplazó por un producto nuevo y más seguro. Se ha mostrado que las vacunas que se recomiendan en la actualidad son seguras y eficaces para millones de niños.

¿Puedo retrasar vacunas u optar por no vacunar?

No es buena idea no vacunar o retrasar vacunar, porque esto dejará a su hijo vulnerable a enfermedades durante más tiempo. Los niños son más vulnerables a las complicaciones de enfermedad durante sus primeros años de vida, cuando las vacunas proporcionan protección, y algunas vacunas producen mejor respuesta inmunitaria a edades particulares. Los padres deben apegarse al programa proporcionado por los Centros Estadounidenses para el Control y la Prevención de Enfermedad (U.S. Centers for Disease Control and Prevention), la American Academy of Pediatrics, y la American Academy of Family Physicians, que está diseñado por expertos a fin de asegurar la protección y seguridad máximas para niños de diversas edades. Este programa permite cierta flexibilidad para retrasar ciertas vacunas cuando el pediatra de un niño lo recomienda debido a enfermedad, ciertas enfermedades crónicas, u otras razones médicas. Los padres deben comentar cualquier inquietud con el pediatra de su hijo.

Hay más información disponible en <http://www.aap.org/advocacy/releases/VaccineSafety-Spanish.pdf> y www.cdc.gov/vaccines.