

Routine Childhood Vaccines



Why Vaccines Matter

Vaccines protect children from serious diseases that once harmed or killed thousands of children each year. Before vaccines, **each year** in the U.S.:

Disease Yearly Impact Before Vaccines

Hepatitis B	24,000 infant infections; risk of liver cancer
DTaP Diseases	15,000 diphtheria deaths; 200,000 pertussis cases; 500 tetanus deaths
Polio	15,000 children paralyzed
MMR Diseases	500 measles deaths; mumps was leading cause of childhood deafness; 1964-65 rubella epidemic caused ~11,000 fetal deaths and ~20,000 babies with congenital defects
Varicella (Chickenpox)	10,000 hospitalizations; ~100 deaths
Influenza	20,000 - 40,000 hospitalizations; 100-200 deaths
COVID-19	Hundreds of child deaths; thousands hospitalized



How Vaccines are Safer Today

- Thimerosal removed from all routine childhood vaccines by 2001.
- Acellular pertussis (DTaP) replaced whole-cell DTP for fewer side effects.
- Inactivated polio vaccine (IPV) replaced oral polio vaccine (OPV).
- Cell-based and recombinant flu vaccines reduce allergens and preservatives.
- Child-sized COVID-19 doses designed specifically for safety.

Side Effects: What to Expect

- Most common are sore arm, mild fever, fussiness, rash
- Rare side effects are febrile seizures (brief, no lasting harm), allergic reactions (screening helps prevent these).
- Very rare side effects are quickly identified and corrected (for example: RotaShield withdrawn in 1999).

i The risk of severe harm from the diseases is much greater than the rare risks from vaccines.

Alternate Schedules?

Studies show that there is no added safety from alternate schedules, but they can leave children unprotected longer and increase the chances of missed vaccines or outbreaks.

i Current schedules are designed for safety and effectiveness.

Understanding Risk: A Parent's Perspective

Every medical choice has some level of risk, but the key is comparing the risk of the vaccine with the risk of the disease.

- Vaccine risks are usually mild and short-lived. Sore arm, low fever, fussiness, or tiredness are the most common.
 - Rare events (like allergic reactions or febrile seizures) are closely monitored and almost always temporary.
- Risks of getting the disease are far more serious. These diseases can cause serious complications like deafness (mumps) and can be severe enough to require hospitalization.
- Safety monitoring never stops. Every vaccine is tracked through systems like VAERS and Vaccine Safety Datalink.
 - When a concern is found, it is pulled from the market immediately and the data is reviewed in depth to determine what the issue was.

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