

U.S. Childhood Immunization Schedule (2020)*	AGES											
	Birth	1 mo	2 mo	4 mo	6 mo	9 mo	12 mo	15 mo	18 mo	4-6 yr	11-12 yr	16 yr
Hepatitis B	X	X					X					
Diphtheria, Pertussis, Tetanus (DTaP)		X	X	X	X			X		X	X (Tdap)	
Haemophilus influenzae type B (Hib)		X	X	X	X					X		
Polio (IPV)		X	X	X	X							
Rotavirus (Rota)		X	X	X	X							
Pneumococcal (Pnevnar 13)		X	X	X	X							
Influenza							X (Vaccine should be administered yearly)					
Measles, Mumps, Rubella (MMR)							X		X			
Varicella (Chickenpox)							X		X			
Hepatitis A											X	X
Meningococcal											X	X
Human Papillomavirus (HPV)												(2 or 3 dose schedule) X

\*Approved by the Advisory Committee on Immunization Practices, the American Academy of Pediatrics and the American Academy of Family Physicians. Additional boosters may be recommended by your provider after age 12. For more information, visit [www.cdc.gov/vaccines/recs/schedules/default.htm](http://www.cdc.gov/vaccines/recs/schedules/default.htm)



**Meningococcus:** This bacterium causes bloodstream infection and meningitis, which can lead to severe complications or death. The meningococcal vaccine, introduced in 2005, is recommended beginning at 11–12 years of age and a booster recommended at age 16, which gives continued protection during the ages where they are at highest risk. There are two types of meningococcal vaccines available in the United States. Each type helps protect your child against different serogroups (strains) of meningococcal disease.

**Influenza:** This viral infection causes fever, body aches, and cough, and can result in pneumonia. The illness appears in waves each winter, and vaccination must be given annually, usually in the fall.

**Human papillomavirus:** This sexually transmitted virus causes genital warts and cervical cancer. The vaccine is recommended for girls and boys before the onset of sexual activity, because it is effective against 90 percent of the HPV strains that cause cervical, penile and anal cancers and genital warts.

### CAN A CHILD STILL GET VACCINATED IF HE/SHE IS SICK?

In most cases, mild illnesses such as colds, ear infections or diarrhea do not prevent your child from receiving his or her shots. Ask your pediatrician for more information.

### ADJUSTMENTS TO THE IMMUNIZATION SCHEDULE:

- Catch-up vaccinations may be provided if your child has missed earlier scheduled doses.
- If your child has a chronic medical condition, including immune system disorder, cancer or is taking certain medications, the schedule for some vaccinations may be altered and/or your child may require additional vaccinations.
- It is important to make an appointment with a health care provider at least 2 weeks before international travel to consider the need for additional vaccinations and medications.



#### St. Louis Children's Hospital

One Children's Place  
St. Louis, Missouri 63110

314.454.KIDS (5437)  
800.678.KIDS (5437)



[StLouisChildrens.org](http://StLouisChildrens.org)

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## The Importance of Being Immunized

ST. LOUIS CHILDREN'S HOSPITAL  
WASHINGTON UNIVERSITY PHYSICIANS

## What Are Vaccines?

Vaccines (immunizations) contain small doses of bacteria or viruses that have been killed or weakened. In some cases, only certain parts of bacteria or viruses are used. When injected, vaccines prompt the body's immune system to make antibodies, special proteins that will recognize and eliminate wild bacteria or viruses when your child encounters them later in life. More combination vaccines have become available, reducing the number of injections needed for your child. Overall, vaccines are very effective in preventing these diseases.

### ARE THERE SIDE EFFECTS?

Some vaccines can cause soreness at the site of the shot, or sometimes a mild fever or rash for a day following administration. Serious reactions are very rare. For most children, the benefits of vaccination far outweigh any risk associated with these vaccines.

Over the years, studies in the U.S. and Europe have found no association between the vaccine for measles, mumps and rubella (MMR) and autism. The Institute of Medicine and American Academy of Pediatrics (AAP) have organized several panels of independent scientists – all concluded no association between MMR and autism.

### WHY SHOULD CHILDREN BE IMMUNIZED?

Vaccinations protect children from dangerous infectious diseases. Decades of effort in vaccine development and administration have eliminated some diseases, like smallpox, and greatly reduced the incidence of polio. But polio and other infectious agents have not vanished completely. In 2019, measles had the greatest number of cases reported in the United States since 1994 and since it was declared eliminated in 2000.

State laws require children to be vaccinated or have a signed exemption before attending school or childcare. These immunizations protect your children – and others around them – from these serious illnesses. In Missouri and Illinois, children entering school or day care must be immunized against measles, mumps, rubella, hepatitis B, diphtheria, pertussis, tetanus, polio and varicella. Meningococcal vaccine is required for students in the 6th through 12th grades. Preschool students require vaccination for Haemophilus influenzae type B and pneumococcus.

Each child should have a permanent immunization record that documents the type and date of each immunization. Your healthcare provider should update your child's record each time vaccines are given.

The AAP and the Centers for Disease Control and Prevention recommend childhood immunization against 16 infectious agents, all of which can cause serious illness, permanent damage or death.

### WHAT ARE THE DANGERS OF THESE DISEASES, IF CONTRACTED?

**Measles:** This viral infection causes fever, conjunctivitis and rash, but can progress to pneumonia or encephalitis (swelling of the brain). The illness is fatal in one of every 1000 cases.

**Mumps:** The mumps virus causes swelling of the salivary glands and sometimes testicular swelling or meningitis.

**Rubella:** This virus causes rash, swollen glands and joint pain or swelling. However, pregnant women who are not immunized and acquire rubella can pass the virus to the unborn baby, and severe birth defects may result.

**Polio:** Minor illness is most common, but many children have temporary paralysis of one or more limbs. In about 1 percent of cases, polio can cause persistent paralysis. Among those who are paralyzed, up to 10 percent of children may die because they become unable to breathe.

**Diphtheria:** This bacterial infection results in a severe inflammation in the throat that can progress to airway obstruction.

**Tetanus:** This illness results from a toxin produced by certain bacteria that may contaminate dirty wounds – especially deep puncture wounds – or certain animal bites. It causes severe muscle spasms, so that patients have difficulty breathing and swallowing.

**Pertussis:** This bacterial infection causes persistent cough. Young infants can develop pneumonia, seizures and apnea (pauses in breathing that can be life-threatening).

**Haemophilus influenzae type B (Hib):** This organism can cause pneumonia, bloodstream infection and meningitis. The occurrence of Hib meningitis has decreased by more than 99 percent since the vaccine was introduced.

**Hepatitis A:** This viral infection can be without symptoms, or it can cause nausea, vomiting, swelling of the liver, and yellowing of the skin. It can be acquired from other persons by eating foods that were contaminated during preparation.

**Hepatitis B:** This viral infection, which is usually acquired through contact with body fluids, causes infection of the liver. Later in life, chronic carriers are at risk for liver failure or cancer of the liver. Infected pregnant women can transmit the virus to their newborns during delivery.

**Varicella (Chickenpox):** Most children have fever and a very itchy rash that goes away in a week or so. However, pneumonia and bacterial skin infections can complicate chickenpox, and up to 150 people died each year before vaccination became available in the US.

**Rotavirus:** This intestinal virus is a very common cause of severe, dehydrating diarrhea in infants and young children.

**Pneumococcus:** This organism is a leading cause of bacterial meningitis, and also causes pneumonia, bloodstream infection and ear infections. The pneumococcal vaccine was introduced in 2000. After children started getting this vaccination, the number of children infected dropped quickly. The most current vaccination protects against 13 types of pneumococcal bacteria.

*(Continued on back)*

## Immunization schedule

On the reverse side is a chart that summarizes the most common immunizations. If you have questions, please consult your pediatrician.



*This information was provided by the Division of Infectious Diseases at St. Louis Children's Hospital.*