

HOME VISITORS GUIDE

**Recommended Child & Adolescent
Immunization Schedule for ages 18
years old and younger**



VACCINES CAN PREVENT DISEASE

Childhood vaccination is essential because it helps provide immunity before children are exposed to potentially life-threatening diseases.

This guide is provided as a tool for Home Visitors to support conversations with participants regarding the importance of vaccinations as a preventative healthcare strategy. Individuals should always contact their medical provider for any questions and to schedule their vaccine appointments.

This guide belongs to _____

HOW TO USE THE CHILD AND ADOLESCENT IMMUNIZATION SCHEDULE

1

Determine recommended vaccine by age (Table 1)

2

Determine recommended interval for catchup vaccination (Table 2)

3

Assess need for additional recommended vaccines by medical condition or other indication (Table 3)

4

Review vaccine types, frequencies, intervals, and considerations for special situations (Notes)

5

Review contraindications and precautions for vaccine types (Appendix)

Recommended by the Advisory Committee on Immunization Practices ([cdc.gov/vaccines/acip](https://www.cdc.gov/vaccines/acip)) and approved by the Centers for Disease Control and Prevention ([cdc.gov](https://www.cdc.gov)), American Academy of Pediatrics ([aap.org](https://www.aap.org)), American Academy of Family Physicians ([aafp.org](https://www.aafp.org)), American College of Obstetricians and Gynecologists ([acog.org](https://www.acog.org)), American College of Nurse-Midwives ([midwife.org](https://www.midwife.org)), American Academy of Physician Associates ([aapa.org](https://www.aapa.org)), and National Association of Pediatric Nurse Practitioners ([napnap.org](https://www.napnap.org)).

Report

Suspected cases of reportable vaccine-preventable diseases or outbreaks to your state or local health department and Clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) atvaers.hhs.gov or 800-822-7967

Questions or comments

Contact [cdc.gov/cdc-info](https://www.cdc.gov/cdc-info) or 800-CDC-INFO (800-232-4636), in English or Spanish, 8 a.m.-8 p.m. ET, Monday through Friday, excluding holidays

Helpful information

- Complete Advisory Committee on Immunization Practices (ACIP) recommendations: [cdc.gov/vaccines/hcp/acip-recs/index.html](https://www.cdc.gov/vaccines/hcp/acip-recs/index.html)
- General Best Practice Guidelines for Immunization (including contraindications and precautions): [cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html)
- Vaccine information statements: [cdc.gov/vaccines/hcp/vis/index.html](https://www.cdc.gov/vaccines/hcp/vis/index.html)
- Manual for the Surveillance of Vaccine-Preventable Diseases (including case identification and outbreak response): [cdc.gov/vaccines/pubs/surv-manual](https://www.cdc.gov/vaccines/pubs/surv-manual)
- ACIP Shared Clinical Decision-Making Recommendations: [cdc.gov/vaccines/acip/acip-scdm-faqs.html](https://www.cdc.gov/vaccines/acip/acip-scdm-faqs.html)



Download the CDC Vaccine Schedules app for providers at

[cdc.gov/vaccines/schedules/hcp/schedule-app.html](https://www.cdc.gov/vaccines/schedules/hcp/schedule-app.html)

Scan QR code for access to online schedule



CS310020-A



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Table 1

Recommended Child and Adolescent Immunization Schedule for Ages 18 Years or Younger, United States, 2024

Vaccine and other immunizing agents	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	12 mos	15 mos	18 mos	19–23 mos	2–3 yrs	4–6 yrs	7–10 yrs	11–12 yrs	13–15 yrs	16 yrs	17–18 yrs	
Respiratory syncytial virus (RSV-mAb [Nirsevimab])	1 dose depending on maternal RSV vaccination status, See Notes					1 dose (8 through 19 months), See Notes												
Hepatitis B (HepB)	1 st dose	← 2 nd dose →			← 3 rd dose →													
Rotavirus (RV): RV1 (2-dose series), RV5 (3-dose series)		1 st dose	2 nd dose	See Notes														
Diphtheria, tetanus, acellular pertussis (DTaP <7 yrs)		1 st dose	2 nd dose	3 rd dose		← 4 th dose →			5 th dose									
Haemophilus influenzae type b (Hib)		1 st dose	2 nd dose	See Notes		← 3 rd or 4 th dose, See Notes →												
Pneumococcal conjugate (PCV15, PCV20)		1 st dose	2 nd dose	3 rd dose		← 4 th dose →												
Inactivated poliovirus (IPV <18 yrs)		1 st dose	2 nd dose	← 3 rd dose →						4 th dose						See Notes		
COVID-19 (1vCOV-mRNA, 1vCOV-aPS)	1 or more doses of updated (2023–2024 Formula) vaccine (See Notes)																	
Influenza (IIV4)	Annual vaccination 1 or 2 doses										Annual vaccination 1 dose only							
or																		
Influenza (LAIV4)											Annual vaccination 1 or 2 doses				Annual vaccination 1 dose only			
Measles, mumps, rubella (MMR)					See Notes	← 1 st dose →				2 nd dose								
Varicella (VAR)						← 1 st dose →				2 nd dose								
Hepatitis A (HepA)					See Notes	2-dose series, See Notes												
Tetanus, diphtheria, acellular pertussis (Tdap ≥7 yrs)											1 dose							
Human papillomavirus (HPV)												See Notes						
Meningococcal (MenACWY-CRM ≥2 mos, MenACWY-TT ≥2 years)			See Notes												1 st dose		2 nd dose	
Meningococcal B (MenB-4C, MenB-FHbp)														See Notes				
Respiratory syncytial virus vaccine (RSV [Abrysvo])														Seasonal administration during pregnancy, See Notes				
Dengue (DEN4CYD; 9–16 yrs)														Seropositive in endemic dengue areas (See Notes)				
Mpox																		

Range of recommended ages for all children
 Range of recommended ages for catch-up vaccination
 Range of recommended ages for certain high-risk groups
 Recommended vaccination can begin in this age group
 Recommended vaccination based on shared clinical decision-making
 No recommendation/not applicable

Table 2

Recommended Catch-up Immunization Schedule for Children and Adolescents Who Start Late or Who Are More than 1 Month Behind, United States, 2024

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child’s age. Always use this table in conjunction with Table 1 and the Notes that follow.

Children age 4 months through 6 years					
Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Hepatitis B	Birth	4 weeks	8 weeks and at least 16 weeks after first dose minimum age for the final dose is 24 weeks		
Rotavirus	6 weeks Maximum age for first dose is 14 weeks, 6 days.	4 weeks	4 weeks maximum age for final dose is 8 months, 0 days		
Diphtheria, tetanus, and acellular pertussis	6 weeks	4 weeks	4 weeks	6 months	6 months
<i>Haemophilus influenzae</i> type b	6 weeks	No further doses needed if first dose was administered at age 15 months or older. 4 weeks if first dose was administered before the 1st birthday. 8 weeks (as final dose) if first dose was administered at age 12 through 14 months.	No further doses needed if previous dose was administered at age 15 months or older 4 weeks if current age is younger than 12 months and first dose was administered at younger than age 7 months and at least 1 previous dose was PRP-T (ActHib®, Pentacel®, Hiberix®), Vaxelis® or unknown 8 weeks and age 12 through 59 months (as final dose) if current age is younger than 12 months and first dose was administered at age 7 through 11 months; OR if current age is 12 through 59 months and first dose was administered before the 1st birthday and second dose administered at younger than 15 months; was OR if both doses were PedvaxHIB® and were administered before the 1st birthday	8 weeks (as final dose) This dose only necessary for children age 12 through 59 months who received 3 doses before the 1 st birthday.	
Pneumococcal conjugate	6 weeks	No further doses needed for healthy children if first dose was administered at age 24 months or older 4 weeks if first dose was administered before the 1st birthday 8 weeks (as final dose for healthy children) if first dose was administered at the 1st birthday or after	No further doses needed for healthy children if first dose was administered at age 24 months or older 4 weeks if current age is younger than 12 months and previous dose was administered at <7 months old 8 weeks (as final dose for healthy children) if previous dose was administered between 7–11 months (wait until at least 12 months old); OR if current age is 12 months or older and at least 1 dose was administered before age 12 months	8 weeks (as final dose) This dose only necessary for children age 12 through 59 months who received 3 doses before age 12 months or for children at high risk who received 3 doses at any age.	
Inactivated poliovirus	6 weeks	4 weeks	4 weeks if current age is <4 years 6 months (as final dose) if current age is 4 years or older	6 months (minimum age 4 years for final dose)	
Measles, mumps, rubella	12 months	4 weeks			
Varicella	12 months	3 months			
Hepatitis A	12 months	6 months			
Meningococcal ACWY	2 months MenACWY-CRM 9 months MenACWY-D 2 years MenACWY-TT	8 weeks	See Notes	See Notes	
Children and adolescents age 7 through 18 years					
Meningococcal ACWY	Not applicable (N/A)	8 weeks			
Tetanus, diphtheria; tetanus, diphtheria, and acellular pertussis	7 years	4 weeks	4 weeks if first dose of DTaP/DT was administered before the 1st birthday 6 months (as final dose) if first dose of DTaP/DT or Tdap/Td was administered at or after the 1st birthday	6 months if first dose of DTaP/DT was administered before the 1 st birthday	
Human papillomavirus	9 years	Routine dosing intervals are recommended.			
Hepatitis A	N/A	6 months			
Hepatitis B	N/A	4 weeks	8 weeks and at least 16 weeks after first dose		
Inactivated poliovirus	N/A	4 weeks	6 months A fourth dose is not necessary if the third dose was administered at age 4 years or older and at least 6 months after the previous dose.	A fourth dose of IPV is indicated if all previous doses were administered at <4 years or if the third dose was administered <6 months after the second dose.	
Measles, mumps, rubella	N/A	4 weeks			
Varicella	N/A	3 months if younger than age 13 years. 4 weeks if age 13 years or older			
Dengue	9 years	6 months	6 months		

Table 3

Recommended Child and Adolescent Immunization Schedule by Medical Indication, United States, 2024

Always use this table in conjunction with Table 1 and the Notes that follow.

Vaccine and other immunizing agents	Pregnancy	Immunocompromised (excluding HIV infection)	HIV infection CD4 percentage and count ^a		CSF leak or cochlear implant	Asplenia or persistent complement deficiencies	Heart disease or chronic lung disease	Kidney failure, End-stage renal disease or on Dialysis	Chronic liver disease	Diabetes
			<15% or <200mm	≥15% and ≥200mm						
RSV-mAb (nirsevimab)		2nd RSV season	1 dose depending on maternal RSV vaccination status, See Notes				2nd RSV season for chronic lung disease (See Notes)	1 dose depending on maternal RSV vaccination status, See Notes		
Hepatitis B										
Rotavirus		SCID ^b								
DTaP/Tdap	DTaP									
	Tdap: 1 dose each pregnancy									
Hib		HSCT: 3 doses	See Notes			See Notes				
Pneumococcal										
IPV										
COVID-19			See Notes							
IIV4										
LAIV4							Asthma, wheezing: 2–4 years ^c			
MMR	*									
VAR	*									
Hepatitis A										
HPV	*	3 dose series. See Notes								
MenACWY										
MenB										
RSV (Abrysvo)	Seasonal administration, See Notes									
Dengue										
Mpox	See Notes									

Recommended for all age-eligible children who lack documentation of a complete vaccination series
Not recommended for all children, but is recommended for some children based on increased risk for or severe outcomes from disease
Recommended for all age-eligible children, and additional doses may be necessary based on medical condition or other indications. See Notes.
Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction
Contraindicated or not recommended
*Vaccinate after pregnancy, if indicated
No Guidance/ Not Applicable

^a For additional information regarding HIV laboratory parameters and use of live vaccines, see the General Best Practice Guidelines for Immunization, "Altered Immunocompetence," at cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html and Table 4-1 (footnote J) at cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html

^b Severe Combined Immunodeficiency

^c LAIV4 contraindicated for children 2–4 years of age with asthma or wheezing during the preceding 12 months

Vaccination

Diphtheria

WHAT IS DIPHThERIA?

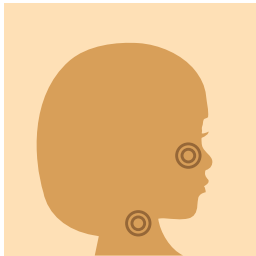
Diphtheria is a serious infection caused by strains of bacteria called *Corynebacterium diphtheriae* that make toxin (poison). It can lead to difficulty breathing, heart failure, paralysis and even death.

HOW DOES DIPHThERIA SPREAD?

Diphtheria spreads when an infected person coughs or sneezes. A person who does not receive treatment can spread the disease for about 2 weeks after infection.

WHAT ARE THE SYMPTOMS OF DIPHThERIA?

Diphtheria starts with a sore throat, mild fever (101 degrees or less) and chills. Next, it can cause a thick coating in the back of the nose or throat. The coating may be white or grayish and makes it hard to breathe or swallow.



IS IT SERIOUS?

Diphtheria can be very serious. In children younger than 5 years old, as many as 1 out of 5 children who get diphtheria dies. About 1 out of 10 people who get diphtheria dies.

The coating in the back of the nose or throat can get so thick that it blocks the airway, so the person can't breathe.

The diphtheria toxin can affect the heart, causing abnormal heart rhythms and even heart failure. It can also affect the nerves and lead to paralysis (unable to move parts of the body).

WHY SHOULD MY CHILD GET THE DTaP AND Tdap SHOTS?

- Protects against diphtheria, which can be very serious, as well as tetanus and whooping cough (pertussis).
- Prevents your child from developing a thick coating in the back of the nose or throat from diphtheria that can make it hard to breathe or swallow.
- Keeps your child from missing school or childcare, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

Most children don't have any side effects from DTaP or Tdap. The side effects that do occur are usually mild, and may include:

- Redness, swelling or pain where the shot was given
- Fever
- Vomiting

More serious side effects are very rare but with DTaP can include:

- A fever over 105 degrees
- Nonstop crying for 3 hours or more
- Seizures (jerking, twitching of the muscles, or staring)

Some preteens and teens might faint after getting Tdap or any other shot.

WHAT ARE DIPHThERIA CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- For DTaP only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP

PRECAUTIONS

- Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus-toxoid-containing vaccine
- History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine
- For DTaP only: Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized
- Moderate or severe acute illness with or without fever

Haemophilus influenzae type b (Hib)

WHAT IS HIB DISEASE?

Hib disease is a serious illness caused by the bacteria Haemophilus influenzae type b (Hib). Babies and children younger than 5 years old are most at risk for Hib disease. It can cause lifelong disability and be deadly.

HOW DOES HIB SPREAD?

People spread H. influenzae, including Hib, to others through respiratory droplets. People who are infected spread the bacteria by coughing or sneezing, which creates small respiratory droplets that contain the bacteria. Other people can get sick if they breathe in those droplets. People who are not sick but have the bacteria in their noses and throats can still spread the bacteria. That is how H. influenzae spreads most of the time. The bacteria can also spread to people who have close or lengthy contact with a person with H. influenzae disease.

WHAT ARE THE SYMPTOMS OF HIB?

Hib disease causes different symptoms depending on which part of the body it affects.

The most common type of Hib disease is meningitis. This is an infection of the tissue covering the brain and spinal cord. It causes:

- High fever
- Confusion
- Headache or stiff neck
- Increased sensitivity to light
- Poor eating and drinking, low alertness, or vomiting (in babies)

Hib disease can also cause:

- Throat swelling that makes it hard to breathe
- Joint infection
- Skin infection
- Pneumonia (lung infection)
- Bone infection

IS IT SERIOUS?

Hib disease is very serious. Most children with Hib disease need care in the hospital. Even with treatment, as many as 1 out of 20 children with Hib meningitis dies. As many as 1 out of 5 children who survive Hib meningitis will have brain damage or become deaf.

WHY SHOULD MY CHILD GET THE HIB SHOT?

- Protects your child from Hib disease, which can cause lifelong disability and be deadly.
- Protects your child from the most common type of Hib disease, meningitis (an infection of the lining covering the brain and spinal cord).
- Keeps your child from missing school or childcare, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

Most children don't have any side effects from the shot. The side effects that do occur are usually mild, and may include:

- Redness, swelling, warmth, or pain where the shot was given
- Fever

WHAT ARE HIB VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- For Hiberix, ActHib, and PedvaxHIB only: History of severe allergic reaction to dry natural latex
- Less than age 6 weeks

PRECAUTIONS

- Moderate or severe acute illness with or without fever

Hepatitis A

WHAT IS HEPATITIS A?

Hepatitis A is a serious liver disease caused by the hepatitis A virus. Children with the virus often don't have symptoms, but they often pass the disease to others, including their unvaccinated parents or caregivers. These individuals can get very sick.

HOW DOES HEPATITIS A SPREAD?

Hepatitis A virus is found in the stool (poop) of a person who has the virus. It spreads when a person puts something in his or her mouth that has the hepatitis A virus on it. Even if the item looks clean, it can still have virus on it that can spread to others. The amount of stool can be so tiny that it cannot be seen with the naked eye. You can get it by touching objects such as doorknobs or diapers or eating food that has the virus on it.

WHAT ARE THE SYMPTOMS OF HEPATITIS A?

Children under 6 years old often have no symptoms. Older children and adults feel very sick and weak. Symptoms usually appear 2 to 6 weeks after a person gets the virus.

The symptoms may include:

- Fever
- Loss of appetite (not wanting to eat)
- Tiredness
- Stomach pain
- Vomiting
- Dark urine
- Yellow skin and eyes

Older children, adolescents and adults often feel sick and symptoms can last for up to 6 months

IS IT SERIOUS?

Hepatitis A is a serious disease that used to be more common in the United States. In the 1980s, the United States used to see as many as 30,000 cases a year. Thanks to the vaccine, the number of hepatitis A cases in the United States has dropped by 95%. There is no specific treatment for hepatitis A.



WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from hepatitis A, a potentially serious disease.
- Protects other people from the disease because children under 6 years old with hepatitis A usually don't have symptoms, but they often pass the disease to others without anyone knowing they were infected.
- Keeps your child from missing school or childcare and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?

1st Dose 12 through 23 months

2nd Dose 6 months after last dose

WHAT ARE THE SIDE EFFECTS?

The most common side effects are usually mild and last 1 or 2 days. They include:

- Sore arm from the shot
- Headache
- Tiredness
- Fever
- Loss of appetite (not wanting to eat)

WHAT ARE HEPATITIS A VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component including neomycin

PRECAUTIONS

- Moderate or severe acute illness with or without fever

Hepatitis B

WHAT IS HEPATITIS B?

Hepatitis B is a contagious liver disease caused by the hepatitis B virus. When a person is first infected with the virus, he or she can develop an “acute” (short-term) infection. Acute hepatitis B refers to the first 6 months after someone is infected with the hepatitis B virus. This infection can range from a very mild illness with few or no symptoms to a serious condition requiring hospitalization. Some people are able to fight the infection and clear the virus.

For others, the infection remains and is “chronic,” or lifelong. Chronic hepatitis B refers to the infection when it remains active instead of getting better after 6 months. Over time, the infection can cause serious health problems, and even liver cancer.

HOW DOES HEPATITIS B SPREAD?

Hepatitis B is spread through contact with blood of an infected person (even if they show no symptoms).

- At birth
- Open cuts or sores
- Sharing toothbrushes or other personal items
- Food chewed for a baby
- Any infected family member or caregiver can pass the virus to your baby.
- The virus can live on objects for 7 days or more.

WHAT ARE THE SYMPTOMS OF HEPATITIS B?

Infants and young children usually show no symptoms. Hepatitis B infection causes:

- Loss of appetite (not wanting to eat)
- Fever
- Tiredness
- Pain in muscles, joints, and stomach
- Nausea, diarrhea, and vomiting
- Dark urine

These symptoms usually appear 3 or 4 months after a person gets the virus.

IS IT SERIOUS?

Hepatitis B can be very serious. Most people with a recent hepatitis B infection may feel sick for a few weeks to several months. Some people get over the illness. For other people, the virus infection remains active in their bodies for the rest of their life.

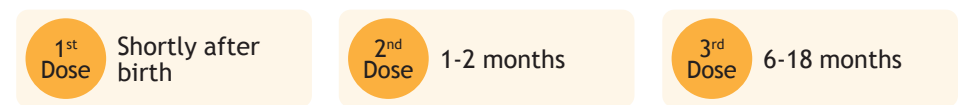
Although people with lifelong hepatitis B usually don't have symptoms, the virus causes liver damage over time and could lead to liver cancer. There is no cure for hepatitis B, but treatment can help prevent serious problems.

Hepatitis B can cause liver damage and cancer.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from against hepatitis B, a potentially serious disease.
- Protects other people from the disease because children with hepatitis B usually don't have symptoms, but they may pass the disease to others without anyone knowing they were infected.
- Prevents your child from developing liver disease and cancer from hepatitis B.
- Keeps your child from missing school or childcare and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

The most common side effects of the hepatitis B vaccine are mild and include:

- Low fever (less than 101 degrees) or,
- Sore arm from the shot.

WHAT ARE HEPATITIS B VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component including yeast
- For Heplisav-B only: Pregnancy

PRECAUTIONS

- Moderate or severe acute illness with or without fever

Human papillomavirus

WHAT IS HUMAN PAPILLOMAVIRUS (HPV)?

HPV is a group of more than 150 related viruses that infect men and women. These common viruses infect about 13 million people, including teens, every year. Some HPV infections can lead to certain types of cancer.

HOW DOES HUMAN PAPILLOMAVIRUS SPREAD?

You can get HPV by having vaginal, anal, or oral sex with someone who has the virus. It is most commonly spread during vaginal or anal sex. It also spreads through close skin-to-skin touching during sex. A person with HPV can pass the infection to someone even when they have no signs or symptoms.

If you are sexually active, you can get HPV, even if you have had sex with only one person. You also can develop symptoms years after having sex with someone who has the infection. This makes it hard to know when you first got it.

WHAT ARE THE SYMPTOMS OF HPV?

Most HPV types cause no symptoms and go away on their own. But, if HPV does not go away, it can cause cervical cancer, genital warts and other kinds of cancer.

IS IT SERIOUS?

While most HPV infections go away on their own, some infections that don't go away can cause:

- Cervical, vaginal, and vulvar cancers in women
- Penile cancer external icon in men
- Anal cancer in both men and women
- Cancer of the back of the throat, including the base of the tongue and tonsils (oropharynx) in both men and women
- Genital warts

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects against infections that can lead to certain cancers.
- Protects against abnormal cells that can lead to cancer (precancers) and the lasting effects of testing and treatment for these precancers.
- Protects your child long before they are ever exposed to cancer-causing infections.

WHEN SHOULD MY CHILD GET THIS SHOT?

If 11-12 Years:

2 Doses 6-12 months apart

3rd Dose if given less than 5 months apart

If started after 15th birthday:

3 Doses over 6 months

WHAT ARE THE SIDE EFFECTS?

The most common side effects of the HPV vaccine are mild and include:

- Pain, redness, or swelling in the arm where the shot was given
- Fever
- Dizziness or fainting (fainting after any vaccine, including HPV vaccine, is more common among adolescents)
- Nausea
- Headache or feeling tired
- Muscle or joint pain

WHAT ARE HUMAN PAPILLOMAVIRUS VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component

PRECAUTIONS

- Moderate or severe acute illness with or without fever

Vaccination

Influenza (flu)

WHAT IS FLU?

Flu—short for influenza—is an illness caused by influenza viruses. Flu viruses infect the nose, upper airways, throat, and lungs. Flu spreads easily and can cause serious illness, especially for young children, older people, pregnant women, and people with certain chronic conditions like asthma and diabetes.

HOW DOES FLU SPREAD?

Flu spreads mainly by droplets when people who have flu talk, cough, or sneeze, and these droplets land in the mouths or noses of people who are nearby or are inhaled. Less often, a person might get flu by touching a surface or object that has flu virus on it and then touching their own mouth, nose, or possibly their eyes.

People can spread flu to others from one day before they have symptoms to 5-7 days after they get sick. This can be longer in children and people who are very sick.

WHAT ARE THE SYMPTOMS OF FLU?

Flu symptoms can include:

- Fever (not everyone with flu will have a fever) or feeling feverish/chills
- Chills
- Cough
- Sore throat
- Runny or stuffy nose
- Headache
- Muscle or body aches
- Tiredness
- Vomiting and/or diarrhea (this is more common in children than adults)

Most people who get sick with flu will recover in a few days to less than two weeks.

IS IT SERIOUS?

Millions of children get sick with flu each year and thousands are hospitalized. CDC estimates that since 2010, between 7,000 and 28,000 children younger than 5 years old have been hospitalized for flu each year in the United States. Children with chronic conditions like asthma, diabetes and disorders of the brain or nervous system, and children younger than 5 years old (and especially children younger than 2 years old) are more likely to end up in the hospital from flu.

Some people at high risk can develop complications (such as pneumonia) that can result in hospitalization and even death.

WHY SHOULD MY CHILD GET THIS SHOT OR NASAL SPRAY?

- Reduces the risk of flu illness and hospitalization among children.
- Shown to be life-saving for children.
- Can make illness less severe among people who get vaccinated but still get sick with flu.
- Reduces the risk of illness, which can keep your child from missing school or childcare and you from having to miss work.
- Reduces the high risk of developing serious flu complication especially if your child is younger than 5 years, or of any age with certain chronic conditions.
- Helps prevent spreading flu to family and friends, including babies younger than 6 months who are too young to get a flu vaccine.

The nasal spray vaccine can be given to people 2 through 49 years of age. However, certain people with underlying medical conditions should not get the nasal spray vaccine. Your child's doctor will know which vaccines are right for your child.

WHEN SHOULD MY CHILD GET THIS VACCINE?

Yearly, starting when he or she is 6 months old.

Some children 6 months through 8 years of age may need 2 doses for best protection.

1 or 2 Doses 6 months old - 8 years old

WHAT ARE THE SIDE EFFECTS?

Common side effects from the flu shot may include:

- Soreness, redness, and/or swelling where shot was given
- Headache
- Fever
- Nausea
- Muscle aches

Side effects from the nasal spray flu vaccine may include:

- Runny nose
- Wheezing
- Headache
- Vomiting
- Muscle aches

WHAT ARE INFLUENZA VACCINE CONTRAINDICATIONS AND PRECAUTION?

For vaccine contraindications and precautions go to pg. 28 for more information.

Vaccination

Measles

WHAT IS MEASLES?

Measles is a serious respiratory disease (in the lungs and breathing tubes). It causes a rash and fever. It is very contagious. In rare cases, it can be deadly.

HOW DOES MEASLES SPREAD?

- Measles spreads when a person infected with the measles virus breathes, coughs, or sneezes.
- It is very contagious.
- You can catch measles just by being in a room where a person with measles has been, up to 2 hours after that person is gone.
- And you can catch measles from an infected person even before they have a measles rash.

WHAT ARE THE SYMPTOMS OF MEASLES?

Measles starts with a fever that can get very high. Some other symptoms that may occur are:

- Cough, runny nose, and red eyes
- Rash of tiny, red spots that start at the head and spread to the rest of the body
- Diarrhea
- Ear infection

IS IT SERIOUS?



Measles can be dangerous, especially for babies and young children. For some children, measles can lead to:

- Pneumonia (a serious lung infection)
- Lifelong brain damage
- Deafness
- Death

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from measles, a potentially serious disease, as well as mumps and rubella.
- Protects your child from getting an uncomfortable rash and high fever from measles.
- Keeps your child from missing school or childcare, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?

WHAT ARE THE SIDE EFFECTS?

1st Dose 12-15 months

2nd Dose 4-6 years

Most children don't have any side effects from the shot. The side effects that do occur are usually mild and may include:

- Soreness, redness, or swelling where the shot was given
- Fever
- Mild rash
- Temporary pain and stiffness in the joints

More serious side effects are rare. These may include high fever that could cause a seizure.

WHAT ARE MEASLES VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised)
- Pregnancy
- Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent

PRECAUTIONS

- Recent (≤ 11 months) receipt of antibody-containing blood product (specific interval depends on product)
- History of thrombocytopenia or thrombocytopenic purpura
- Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing
- Moderate or severe acute illness with or without fever

Meningococcal

WHAT IS MENINGOCOCCAL DISEASE?

Meningococcal disease can refer to any illness caused by a type of bacteria called *Neisseria meningitidis*, also known as meningococcus [muh-ning-goh-KOK-us]. Meningococcal disease is not very common in the United States, but teens and young adults are at increased risk.

The two most common types of infections are:

1. Infections of the lining of the brain and spinal cord (meningitis)
2. Infections of the bloodstream

HOW DOES MENINGOCOCCAL SPREAD?

Meningococcal bacteria spread through saliva or spit, usually through:

- Close contact, like when a person who has the bacteria in their nose or throat coughs on or kisses someone
- Ongoing contact, like living with a person who has the bacteria in their nose or throat (for example, same household, college residence halls, military barracks)

WHAT ARE THE SYMPTOMS OF MENINGOCOCCAL?

Symptoms are usually sudden onset of fever, headache and stiff neck. It can start with symptoms similar to flu, and will often also cause nausea, vomiting, increased sensitivity to light, rash, and confusion.

IS IT SERIOUS?

Meningococcal meningitis and bloodstream infections can be very serious, even deadly. The infections progress quickly. Someone can go from being healthy to very ill in 48 hours or less. Even if they get treatment, about 10 to 15 out of 100 people with meningococcal disease will die from it. Long-term disabilities from having meningococcal disease include loss of limbs, deafness, nervous system problems and brain damage.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects against the bacteria that cause meningococcal disease.
- Protects your child from infections of the lining of the brain and spinal cord, as well as bloodstream infections.
- Protects your child from long-term disabilities that often come with surviving meningococcal disease.

WHEN SHOULD MY CHILD GET THIS SHOT?

1st
Dose 11-12 years

2nd
Dose 16 years

WHAT ARE THE SIDE EFFECTS?

About half of people who get a MenACWY vaccine have mild side effects following vaccination:

- Redness or pain where they got the shot
- Fever

These reactions usually get better on their own within 1 to 2 days, but serious reactions are possible.

Following a MenB shot, more than half of people who get the vaccine will have mild problems:

- Soreness, redness, or swelling where you got the shot
- Tiredness (fatigue)
- Headache
- Muscle or joint pain
- Fever or chills
- Nausea or diarrhea

These reactions usually get better on their own within 3 to 5 days, but serious reactions are possible. Note that teens can get both meningococcal vaccines during the same visit, but in different arms. Some preteens and teens might faint after getting a meningococcal vaccine or any other shot.

WHAT ARE MENINGOCOCCAL VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- For MenACWY-D and Men ACWY-CRM only: severe allergic reaction to any diphtheria toxoid- or CRM197- containing vaccine
- For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine

PRECAUTIONS

- For MenACWY-CRM only: Preterm birth if less than age 9 months
- Moderate or severe acute illness with or without fever

Mumps

WHAT IS MUMPS?

Mumps is best known for the puffy cheeks and swollen jaw that it causes. Mumps spreads easily through coughing and sneezing. There is no treatment for mumps, and it can cause long-term health problems.

HOW DOES MUMPS SPREAD?

Mumps is a contagious disease caused by a virus. It spreads through direct contact with saliva or respiratory droplets from the mouth, nose, or throat. An infected person can spread the virus by

- coughing, sneezing, or talking
- sharing items that may have saliva on them, such as water bottles or cups
- participating in close-contact activities with others, such as playing sports, dancing, or kissing
- touching objects or surfaces with unwashed hands that are then touched by others

An infected person can likely spread mumps from two days before their salivary glands begin to swell to up to five days after the swelling begins. A person with mumps should limit their contact with others during this time. For example, stay home from school and do not attend social events.

WHAT ARE THE SYMPTOMS OF MUMPS?

Mumps usually causes the following symptoms for about 7 to 10 days:

- Fever
- Headache
- Muscle aches
- Tiredness
- Loss of appetite (not wanting to eat)
- Swollen glands under the ears or jaw

Some people who get mumps do not have symptoms. Others may feel sick but will not have swollen glands.

IS IT SERIOUS?

Mumps can be dangerous. Before there was a vaccine, mumps was one of the most common causes of deafness and meningitis. Mumps can also lead to encephalitis.

In most children, mumps is pretty mild. But it can cause serious, sometimes lasting problems, including:

- Meningitis (swelling of the tissue covering the brain and spinal cord)
- Deafness (temporary or permanent)
- Encephalitis (swelling of the brain)
- Orchitis (swelling of the testicles) in males who have reached puberty
- Oophoritis (swelling of the ovaries) and/or mastitis (swelling of the breasts) in females who have reached puberty

In rare cases, mumps is deadly.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from mumps, a potentially serious disease, as well as measles and rubella.
- Protects your child from getting a fever and swollen glands under the ears or jaw from mumps.
- Keeps your child from missing school or childcare, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?

1st
Dose 12-15 months

2nd
Dose 4-6 years

WHAT ARE THE SIDE EFFECTS?

Most children don't have any side effects from the shot. The side effects that do occur are usually mild, and may include:

- Soreness, redness or swelling where the shot was given
- Fever
- Mild rash
- Temporary pain and stiffness in the joints

More serious side effects are rare. These may include high fever that could cause a seizure.

Cont. Mumps

WHAT ARE MUMPS VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised)
- Pregnancy
- Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent

PRECAUTIONS

- Recent (≤ 11 months) receipt of antibody-containing blood product (specific interval depends on product)
- History of thrombocytopenia or thrombocytopenic purpura
- Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing
- Moderate or severe acute illness with or without fever

Pertussis (whooping cough)

WHAT IS WHOOPING COUGH?

Whooping cough is a very serious respiratory (in the lungs and breathing tubes) infection. It is caused by *Bordetella pertussis* bacteria. It can cause violent coughing fits. Whooping cough is most harmful for young babies and can be deadly.

HOW DOES WHOOPING COUGH SPREAD?

Whooping cough spreads easily through the air when a person who has whooping cough breathes, coughs, or sneezes. Almost everyone who is not immune to whooping cough will get sick if exposed to it. A person can spread the disease from the very beginning of the sickness (when he has cold-like symptoms) and for at least 2 weeks after coughing starts.

Since symptoms can be mild for some people, your baby can catch whooping cough from adults, grandparents, or older brothers or sisters who don't know they have the disease.

WHAT ARE THE SYMPTOMS OF WHOOPING COUGH?

Whooping cough usually starts with the following symptoms:

- Runny nose
- Mild cough
- A pause in breathing in babies (apnea)

Children and babies may then begin to develop these more serious problems:

- Coughing very hard, over and over. These coughing fits happen more at night.
- Gasping for breath after a coughing fit. They may make a “whooping” sound. This sound is where the name “whooping cough” comes from. Babies may not cough or make this sound—they may gag, gasp or stop breathing.
- Difficulty breathing, eating, drinking, or sleeping.
- Turning blue from lack of oxygen.
- Vomiting after coughing fits.

Coughing fits can last for up to 10 weeks or more, and sometimes happen again the next time the child has a respiratory illness.

IS IT SERIOUS?

Whooping cough is most dangerous for babies and young children. In fact, babies younger than 1 year old who have whooping cough may:

- Need to be cared for in the hospital
- Develop pneumonia (a serious lung infection)
- Have seizures
- Suffer brain damage

Whooping cough can even be deadly. About 7 in 10 deaths from whooping cough are among babies younger than 2 months old. These babies are too young to get whooping cough shots.

WHY SHOULD MY CHILD GET THE DTAP AND TDAP SHOT?

- Helps protect your child from whooping cough, a potentially serious and even deadly disease, as well as diphtheria and tetanus.
- Helps prevent your child from having violent coughing fits from whooping cough.
- Helps protect your newborn when she is most vulnerable to serious disease and complications.
- Keeps your child from missing school or childcare, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

Most children don't have any side effects from DTaP or Tdap. The side effects that do occur are usually mild, and may include:

- Redness, swelling, or pain where the shot was given
- Fever
- Vomiting

More serious side effects are very rare but with DTaP can include:

- A fever over 105 degrees
- Nonstop crying for 3 hours or more
- Seizures (jerking, twitching of the muscles, or staring)

Some preteens and teens might faint after getting Tdap or any other shot.

Cont. Pertussis (whooping cough)

WHAT ARE WHOOPING COUGH VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- For DTaP only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP

PRECAUTIONS

- Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus-toxoid-containing vaccine
- History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid–containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine
- For DTaP only: Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized
- Moderate or severe acute illness with or without fever

Rubella

WHAT IS RUBELLA?

Rubella, sometimes called “German measles,” is a disease caused by a virus. The infection is usually mild with fever and a rash.

HOW DOES RUBELLA SPREAD?

Rubella spreads when an infected person coughs or sneezes and touches objects or surfaces with unwashed hands.

The disease is most contagious when the infected person has a rash. But it can spread up to 7 days before the rash appears and up to 7 days after. People without symptoms can still spread rubella.

Rubella is rare in the United States but can be brought to the U.S. by travelers.

WHAT ARE THE SYMPTOMS OF RUBELLA?

In children, rubella usually causes the following symptoms that last 2 or 3 days:

- Rash that starts on the face and spreads to the rest of the body
- Low fever (less than 101 degrees)

Before the rash appears, older children and adults may also have:

- Swollen glands
- Cough, runny nose, and redness or swelling of the white of the eye
- Aching joints (especially in young women)

About half of the people who get rubella do not have symptoms.

IS IT SERIOUS?

Rubella is usually mild in children. Complications are not common, but they occur more often in adults. In rare cases, rubella can cause serious problems, including brain infections and bleeding problems.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from rubella, a potentially serious disease, as well as measles and mumps.
- Prevents your child from spreading rubella to a pregnant woman whose unborn baby could develop serious birth defects or die if the mother gets rubella.
- Prevents your child from getting a rash and fever from rubella.
- Keeps your child from missing school or childcare, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?

WHAT ARE THE SIDE EFFECTS?

1st
Dose 12-15 months

2nd
Dose 4-6 years

Most children don't have any side effects from the shot. The side effects that do occur are usually very mild, and may include:

- Fever
- Soreness, redness, or swelling where the shot was given
- Temporary pain and stiffness in the joints (mostly in teens and adults)
- Mild rash

More serious side effects are rare. These may include high fever that could cause a seizure.

WHAT ARE RUBELLA VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised)
- Pregnancy
- Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent

PRECAUTIONS

- Recent (≤ 11 months) receipt of antibody-containing blood product (specific interval depends on product)
- History of thrombocytopenia or thrombocytopenic purpura
- Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing
- Moderate or severe acute illness with or without fever

Pneumococcal

WHAT IS PNEUMOCOCCAL DISEASE?

Pneumococcal disease can cause infections of the ears, lungs, blood and brain. It is caused by bacteria called pneumococcus. It is often mild, but can cause serious symptoms, lifelong disability or death. Children younger than age 2 are among those most at risk for the disease.

HOW DOES PNEUMOCOCCAL SPREAD?

Pneumococcal disease spreads when an infected person coughs or sneezes. Some children may not even feel sick, but they could have the bacteria in their noses and throats. These children can still spread pneumococcal disease.

WHAT ARE THE SYMPTOMS OF PNEUMOCOCCAL?

There are many types of pneumococcal disease. Symptoms depend on the part of the body it affects. Pneumococcal pneumonia (lung infection) causes:

- Fever or chills
- Cough
- Rapid breathing or difficulty breathing
- Chest pain

Pneumococcal meningitis (infection of the lining of the brain and spinal cord) causes:

- Stiff neck or headache
- High fever
- Increased sensitivity to light
- Confusion
- In babies, meningitis may cause poor eating and drinking, low alertness, or vomiting.

Pneumococcal disease causes up to half of middle ear infections (otitis media):

- Symptoms are ear pain; a red, swollen ear drum; or sometimes, fever or sleepiness.
- Blood infection (bacteremia and sepsis) from pneumococcal disease can cause fever, chills, or low alertness.

IS IT SERIOUS?

Pneumococcal disease ranges from mild to very dangerous. About 2,000 cases of serious disease (bacteremia, pneumonia with bacteremia, and meningitis) occur each year in children under 5 years old in the United States. These illnesses can lead to disabilities like deafness, brain damage, or loss of arms or legs. About 1 out of 12 children who get pneumococcal meningitis dies.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from against potentially serious, and even deadly infections cause by pneumococcal disease, like pneumococcal meningitis (infection of the tissue covering the brain and spinal cord) and pneumonia (lung infection).
- Keeps your child from missing school or child care and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

Most children don't have any side effects from the shot. The side effects that do occur are usually mild, and may include:

- Fussiness
- Feeling tired
- Loss of appetite (not want to eat)
- Redness, swelling, or soreness where the shot was given
- Fever or chills
- Headache

WHAT ARE PNEUMOCOCCAL VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid- containing vaccine or its component

PRECAUTIONS

- Moderate or severe acute illness with or without fever

Poliovirus

WHAT IS POLIO?

Polio, or poliomyelitis, is a disabling and life-threatening disease caused by the poliovirus. The virus can infect a person's spinal cord, causing paralysis (can't move parts of the body). Paralysis caused by poliovirus occurs when the virus replicates in and attacks the nervous system. It most often sickens children younger than 5 years old. The paralysis can be lifelong, and it can be deadly.

HOW DOES POLIO SPREAD?

Poliovirus is **very contagious**. It spreads through contact with:

- The stool (poop) of an infected person.
- Droplets from a sneeze or cough of an infected person.

If you get stool or droplets from an infected person on your hands and you touch your mouth, you can get infected. Also, if your child puts objects, like toys, that have stool or droplets on them into their mouth, they can get infected. Sharing utensils with an infected person can also spread the virus.

An infected person can spread the virus to others immediately before and up to 2 weeks after symptoms appear.

- The virus may live in an infected person's intestines for many weeks. They can contaminate food and water when they touch it with unwashed hands.
- People who don't have symptoms can still pass the virus to others and make them sick.

WHAT ARE THE SYMPTOMS OF POLIO?

Most people who get infected with poliovirus do not have any symptoms. Some people (25 people out of 100) will have flu-like symptoms. These symptoms usually last 2 to 5 days. In rare cases, poliovirus infection can be very serious. About 1 out of 200 people will have weakness or paralysis in their arms, legs, or both. This paralysis or weakness can last a lifetime.

IS IT SERIOUS?

The risk of lifelong paralysis is very serious. Even children who seem to fully recover can develop new muscle pain, weakness, or paralysis as adults, 15 to 40 years later. About 2 to 10 children out of 100 who have paralysis from polio die because the virus affects the muscles that help them breathe.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from polio, a potentially serious disease.
- Protects your child from developing lifelong paralysis from polio.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

Redness, swelling, or pain where the shot was given.

WHAT ARE POLIO VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component

PRECAUTIONS

- Pregnancy
- Moderate or severe acute illness with or without fever

Vaccination

Rotavirus

WHAT IS ROTAVIRUS?

Rotavirus causes severe diarrhea and vomiting. It affects mostly babies and young children. Diarrhea and vomiting can lead to serious dehydration (loss of body fluid). If dehydration is not treated, it can be deadly.

HOW DOES ROTAVIRUS SPREAD?

People who are infected with rotavirus shed the virus in their poop. If you get rotavirus particles in your mouth, you can get sick. This can happen if you

- Touch contaminated objects or surfaces and then put your fingers in your mouth
- Put your unwashed hands that are contaminated with poop into your mouth
- Eat contaminated food

Rotavirus can survive on objects for several days. It is very difficult to stop its spread just by hand washing or disinfecting surfaces. The best way to protect young children from rotavirus is to get them vaccinated.

WHAT ARE THE SYMPTOMS OF ROTAVIRUS?

Rotavirus symptoms include:

- Fever
- Watery diarrhea
- Vomiting
- Stomach pain

Diarrhea and vomiting can last for 3 to 8 days. Children may stop eating and drinking while they are sick.

IS IT SERIOUS?

Rotavirus can be very harmful. Diarrhea, vomiting and fever can cause a loss of body fluids. This leads to dehydration, which can be very dangerous, especially for babies and young children. Some children need an IV (needle in their vein) in the hospital to replace lost fluids.

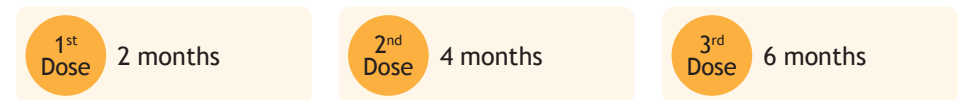
WHY SHOULD MY CHILD GET THE VACCINE?

- Protects your baby from rotavirus, a potentially serious disease.
- Protects your baby from developing diarrhea, vomiting, and stomach pain caused by rotavirus.
- Keeps your child from missing school or childcare and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?

There are two available rotavirus vaccines, which are given by mouth (drops) not by a shot:

• RotaTeq® (RV5):



• Rotarix® (RV1):



WHAT ARE THE SIDE EFFECTS?

Side effects are rare, usually mild, and may include fussiness, diarrhea, and vomiting.

Some studies have shown a small rise in cases of intussusception within a week after the first or second dose of rotavirus vaccine. Intussusception is a type of bowel blockage that is treated in a hospital. Some babies might need surgery. Studies estimate a risk ranging from about 1 intussusception case in every 20,000 infants to 1 intussusception case in every 100,000 infants after vaccination.

WHAT ARE ROTAVIRUS VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Severe combined immunodeficiency (SCID)
- History of intussusception

PRECAUTIONS

- Altered immunocompetence other than SCID
- Chronic gastrointestinal disease
- RV1 only: Spina bifida or bladder exstrophy
- Moderate or severe acute illness with or without fever

Tetanus

WHAT IS TETANUS?

Tetanus is a serious disease caused by a toxin (poison) made by bacteria. It causes painful muscle stiffness and can be deadly. When the tetanus bacteria invade the body, they produce a poison (toxin) that causes painful muscle contractions. Another name for tetanus is “lockjaw”. It often causes a person’s neck and jaw muscles to lock, making it hard to open the mouth or swallow.

HOW DOES TETANUS SPREAD?

Tetanus is different from other vaccine-preventable diseases because it **does not spread from person to person**.

Tetanus bacteria are **found in soil, dust, and manure**. It gets into the body through breaks in the skin, including:

- Punctures, cuts, or sores on the skin
- Burns
- Animal bites

WHAT ARE THE SYMPTOMS OF TETANUS?

The first sign is most commonly spasms of the muscles of the jaw, or “lockjaw”.

- Jaw cramping
- Sudden, involuntary muscle tightening (muscle spasms) - often in the stomach
- Painful muscle stiffness all over the body
- Trouble swallowing
- Jerking or staring (seizures)
- Headache
- Fever and sweating
- Changes in blood pressure and heart rate

IS IT SERIOUS?

Tetanus is very dangerous. It can cause breathing problems, muscle spasms, and paralysis (unable to move parts of the body). Muscle spasms can be strong enough to break a child’s spine or other bones. It can take months to recover fully from tetanus. A child might need weeks of hospital care. As many as 1 out of 5 people who get tetanus dies.

WHY SHOULD MY CHILD GET THE DTAP AND TDAP SHOTS?

- Protects your child from tetanus, which can be a serious disease, as well as diphtheria and whooping cough (pertussis).
- Protects your child from painful muscle stiffness from tetanus.
- Keeps your child from missing school or child care, and you from missing work.

WHEN SHOULD MY CHILD GET THIS SHOT?



WHAT ARE THE SIDE EFFECTS?

Most children don’t have any side effects from DTaP or Tdap. The side effects that do occur are usually mild, and may include:

- Redness, swelling, or pain where the shot was given
- Fever
- Vomiting

More serious side effects are very rare but with DTaP can include:

- A fever over 105 degrees
- Nonstop crying for 3 hours or more
- Seizures (jerking, twitching of the muscles, or staring)

Some preteens and teens might faint after getting Tdap or any other shot.

Cont. Tetanus

WHAT ARE TETANUS VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP, DTaP, or Tdap

PRECAUTIONS

- Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid-containing vaccine
- History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid– containing or tetanus-toxoid- containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine
- For Tdap only: Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized
- Moderate or severe acute illness with or without fever

Varicella (chickenpox)

WHAT IS CHICKENPOX?

Chickenpox is a disease that causes an itchy rash of blisters and a fever. A person with chickenpox may have as many as 500 blisters. The rash can spread over the whole body.

HOW DOES CHICKENPOX SPREAD?

Chickenpox spreads easily, mainly when a person touches or breathes in the virus particles that come from chickenpox. It can also spread through tiny droplets that get into the air when someone who has chickenpox breathes or talks, for example. Chickenpox can spread 1 to 2 days before the infected person gets a rash until all the blisters have formed scabs.

Chickenpox is very contagious. If one person has it, about 9 out of 10 people close to that person who are not immune will also become infected.

WHAT ARE THE SYMPTOMS OF CHICKENPOX?

Chickenpox usually causes the following symptoms:

- An itchy rash of blisters
- Fever
- Headache
- Feeling tired

Symptoms usually last about a week. In some cases, chickenpox can cause serious problems.

IS IT SERIOUS?

Chickenpox is usually mild in children, but the itching can be very uncomfortable. Children who get chickenpox can miss about a week of school or childcare. In some cases, chickenpox can cause serious problems, such as:

- Skin infections
- Dehydration (loss of body fluids)
- Pneumonia (an infection in the lungs)
- Encephalitis (swelling of the brain)

Chickenpox can be serious, even life-threatening, especially in babies, adolescents, adults, pregnant women and people with weakened immune systems. Complications from chickenpox can be serious and can occur in any person who develops chickenpox, although they are more common in healthy babies, adults and people with weakened immune systems. About 9 out of 10 children who get 2 doses of the vaccine will be completely protected from chickenpox.

Before the vaccine was available, about 4 million people got chickenpox each year in the United States, over 10,500 of those people were hospitalized, and about 100-150 people died.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects your child from chickenpox (varicella), a potentially serious and even deadly disease.
- Keeps your child from missing up to one week of school or childcare (and keeps you from missing work to care for your sick child).

WHEN SHOULD MY CHILD GET THIS SHOT?

1st Dose 15-18 months

2nd Dose 4-6 years

WHAT ARE THE SIDE EFFECTS?

Most children don't have any side effects from the shot. The side effects that do occur are usually mild, and may include:

- Soreness, redness, or swelling where the shot was given
- Fever
- Mild rash
- Temporary pain and stiffness in the joints

WHAT ARE CHICKENPOX VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component
- Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised)
- Pregnancy
- Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent

PRECAUTIONS

- Recent (≤ 11 months) receipt of antibody-containing blood product (specific interval depends on product)
- Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccination)
- Use of aspirin or aspirin-containing products
- Moderate or severe acute illness with or without fever

Vaccination

COVID-19

WHAT IS COVID-19?

COVID-19 is caused by a virus called SARS-CoV-2. It is part of the coronavirus family, which include common viruses that cause a variety of diseases from head or chest colds to more severe (but more rare) diseases like severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS).

COVID-19 most often causes respiratory symptoms that can feel much like a cold, a flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease.

HOW DOES COVID-19 SPREAD?

Like many other respiratory viruses, coronaviruses spread quickly through droplets that you project out of your mouth or nose when you breathe, cough, sneeze, or speak.

WHAT ARE THE SYMPTOMS OF COVID-19?

People with COVID-19 have had a wide range of symptoms reported - ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. Anyone can have mild to severe symptoms. People with these symptoms may have COVID-19:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

This list does not include all possible symptoms. CDC will continue to update this list as we learn more about COVID-19. Older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from COVID-19 illness.

IS IT SERIOUS?

Getting sick with COVID-19 can cause severe illness or death, even in children, and we can't reliably predict who will have mild or severe illness. You may have long-term health issues after having COVID-19. Even people who do not have symptoms when they are first infected can have these ongoing health problems.

WHY SHOULD MY CHILD GET THIS SHOT?

- Protects against COVID-19, which can be very serious, as well as protecting those around your child
- Protects children ages 5 years and older, especially from severe disease, hospitalization, or death
- Remain in school or daycare
- Safely participating in sports, playdates and other group activities

WHEN SHOULD MY CHILD GET THIS SHOT?

1st Dose 6 months or older

Additional doses are dependent on vaccine manufacturer. Talk to your healthcare provider or vaccine provider about scheduling additional doses.

WHAT ARE THE SIDE EFFECTS?

Common side effects on the arm where you got the shot include:

- Pain
- Redness
- Swelling

Common side effects throughout the rest of your body include:

- Tiredness
- Headache
- Muscle pain
- Chills
- Fever
- Nausea

Cont. COVID-19

WHAT ARE COVID-19 VACCINE CONTRAINDICATIONS AND PRECAUTIONS?

CONTRAINDICATIONS

- Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component of the COVID-19 vaccine
- History of a known diagnosed allergy to a component of the COVID-19 vaccine
- For the **Janssen COVID-19 Vaccine**, TTS following receipt of a previous Janssen COVID-19 Vaccine (or other COVID-19 vaccines not currently authorized in the United States that are based on adenovirus vectors, e.g., AstraZeneca)

PRECAUTIONS

- History of an immediate allergic reaction to any vaccine other than COVID-19 vaccine or to any injectable therapy (i.e., intramuscular, intravenous, or subcutaneous vaccines or therapies [excluding subcutaneous immunotherapy for allergies, i.e., “allergy shots”])
- People with a history of a non-severe, immediate (onset less than 4 hours) allergic reaction after a dose of one type of COVID-19 vaccine (i.e., mRNA or Janssen) have a precaution to the **same type of COVID-19 vaccine**
- People with an allergy-related contraindication to one type of COVID-19 vaccine have a precaution to the **other type of COVID-19 vaccine** (e.g., people with a contraindication to an mRNA COVID-19 vaccine have a precaution to Janssen COVID-19 vaccine and vice versa).
- Moderate or severe acute illness, with or without fever
- History of MIS-C or MIS-A
- For **mRNA COVID-19 vaccines**, history of myocarditis or pericarditis after a dose of an mRNA COVID-19 vaccine
- For **Janssen COVID-19 Vaccine**, a history of GBS

Additional Information

- Consult relevant ACIP statements for detailed recommendations at [cdc.gov/vaccines/hcp/acip-recs/index.html](https://www.cdc.gov/vaccines/hcp/acip-recs/index.html).
- For calculating intervals between doses, 4 weeks = 28 days. Intervals of ≥ 4 months are determined by calendar months.
- Within a number range (e.g., 12-18), a dash (-) should be read as “through.”
- Vaccine doses administered ≤ 4 days before the minimum age or interval are considered valid. Doses of any vaccine administered ≥ 5 days earlier than the minimum age or minimum interval should not be counted as valid and should be repeated as age appropriate. The repeat dose should be spaced after the invalid dose by the recommended minimum interval. For further details, see Table 3-1, Recommended and minimum ages and intervals between vaccine doses, in General Best Practice Guidelines for Immunization at [cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html).
- Information on travel vaccination requirements and recommendations is available at [cdc.gov/travel](https://www.cdc.gov/travel).
- For vaccination of persons with immunodeficiencies, see Table 8-1, Vaccination of persons with primary and secondary immunodeficiencies, in General Best Practice Guidelines for Immunization at [cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/immunocompetence.html), and Immunization in Special Clinical Circumstances (In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. Red Book: 2018 Report of the Committee on Infectious Diseases. 31st ed. Itasca, IL: American Academy of Pediatrics; 2018:67-111).
- For information about vaccination in the setting of a vaccine-preventable disease outbreak, contact your state or local health department.
- The National Vaccine Injury Compensation Program (VICP) is a no-fault alternative to the traditional legal system for resolving vaccine injury claims. All routine child and adolescent vaccines are covered by VICP except for pneumococcal polysaccharide vaccine (PPSV23). For more information, see [hrsa.gov/vaccinecompensation/index.html](https://www.hrsa.gov/vaccinecompensation/index.html).

For vaccination recommendations for persons ages 19 years or older, see the Recommended Adult Immunization Schedule, 2024.

Vaccine	Abbreviation(s)	Trade name(s)
Dengue vaccine	DEN4CYD	Dengvaxia®
Diphtheria, tetanus, and acellular pertussis vaccine	DTaP	Daptacel® Infanrix®
Diphtheria, tetanus vaccine	DT	No trade name
<i>Haemophilus influenzae</i> type b vaccine	Hib (PRP-T) Hib (PRP-OMP)	ActHIB® Hiberix® PedvaxHIB®
Hepatitis A vaccine	HepA	Havrix® Vaqta®
Hepatitis B vaccine	HepB	Engerix-B® Recombivax HB®
Human papillomavirus vaccine	HPV	Gardasil 9®
Influenza vaccine (inactivated)	IIV4	Multiple
Influenza vaccine (live, attenuated)	LAIV4	FluMist® Quadrivalent
Measles, mumps, and rubella vaccine	MMR	M-M-R II®
Meningococcal serogroups A, C, W, Y vaccine	MenACWY-D MenACWY-CRM MenACWY-TT	Menactra® Menveo® MenQuadfi®
Meningococcal serogroup B vaccine	MenB-4C MenB-FHbp	Bexsero® Trumenba®
Pneumococcal 13-valent conjugate vaccine	PCV13	Prevnar 13®
Pneumococcal 23-valent polysaccharide vaccine	PPSV23	Pneumovax 23®
Poliovirus vaccine (inactivated)	IPV	IPOL®
Rotavirus vaccine	RV1 RV5	Rotarix® RotaTeq®
Tetanus, diphtheria, and acellular pertussis vaccine	Tdap	Adacel® Boostrix®
Tetanus and diphtheria vaccine	Td	Tenivac® Tdvax™
Varicella vaccine	VAR	Varivax®
Combination vaccines (use combination vaccines instead of separate injections when appropriate)		
DTaP, hepatitis B, and inactivated poliovirus vaccine	DTaP-HepB-IPV	Pediarix®
DTaP, inactivated poliovirus, and <i>Haemophilus influenzae</i> type b vaccine	DTaP-IPV/Hib	Pentacel®
DTaP and inactivated poliovirus vaccine	DTaP-IPV	Kinrix® Quadracel®
DTaP, inactivated poliovirus, <i>Haemophilus influenzae</i> type b, and hepatitis B vaccine	DTaP-IPV-HibHepB	Vaxelis®
Measles, mumps, rubella, and varicella vaccine	MMRV	ProQuad®

*Administer recommended vaccines if immunization history is incomplete or unknown. Do not restart or add doses to vaccine series for extended intervals between doses. When a vaccine is not administered at the recommended age, administer at a subsequent visit. The use of trade names is for identification purposes only and does not imply endorsement by the ACIP or CDC.

Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2024

Guide to Contraindications and Precautions to Commonly Used Vaccines

Adapted from Table 4-1 in Advisory Committee on Immunization Practices (ACIP) General Best Practice Guidelines for Immunization: Contraindication and Precautions available at [cdc.gov/vaccines/hcp/aciprecs/general-recs/contraindications.html](https://www.cdc.gov/vaccines/hcp/aciprecs/general-recs/contraindications.html) and ACIP's Recommendations for the Prevention and Control of 2021-22 seasonal influenza with Vaccines available at [cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm](https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm)

Interim clinical considerations for use of COVID-19 vaccines including contraindications and precautions can be found at [cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html](https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html)

Vaccine	Contraindications ¹	Precautions ²
Influenza, egg-based, inactivated injectable (IIV4)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, cclIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) 	<ul style="list-style-type: none"> Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with egg allergy with symptoms other than hives (e.g., angioedema, respiratory distress) or required epinephrine or another emergency medical intervention: Any influenza vaccine appropriate for age and health status may be administered. If using egg-based IIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, cell culture-based inactivated injectable [(cclIV4), Fluceivax [®] Quadrivalent]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) to any cclIV of any valency, or to any component³ of cclIV4 	<ul style="list-style-type: none"> Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, RIV, or LAIV of any valency. If using cclIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, recombinant injectable [(RIV4), Flublok [®] Quadrivalent]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) to any RIV of any valency, or to any component³ of RIV4 	<ul style="list-style-type: none"> Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Persons with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any egg-based IIV, cclIV, or LAIV of any valency. If using RIV4, administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Moderate or severe acute illness with or without fever
Influenza, live attenuated [LAIV4, Flumist [®] Quadrivalent]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after previous dose of any influenza vaccine (i.e., any egg-based IIV, cclIV, RIV, or LAIV of any valency) Severe allergic reaction (e.g., anaphylaxis) to any vaccine component³ (excluding egg) Children age 2 – 4 years with a history of asthma or wheezing Anatomic or functional asplenia Immunocompromised due to any cause including, but not limited to, medications and HIV infection Close contacts or caregivers of severely immunosuppressed persons who require a protected environment Pregnancy Cochlear implant Active communication between the cerebrospinal fluid (CSF) and the oropharynx, nasopharynx, nose, ear or any other cranial CSF leak Children and adolescents receiving aspirin or salicylate-containing medications Received influenza antiviral medications oseltamivir or zanamivir within the previous 48 hours, peramivir within the previous 5 days, or baloxavir within the previous 17 days 	<ul style="list-style-type: none"> Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of any type of influenza vaccine Asthma in persons aged 5 years old or older Persons with egg allergy with symptoms other than hives (e.g., angioedema, respiratory distress) or required epinephrine or another emergency medical intervention: Any influenza vaccine appropriate for age and health status may be administered. If using LAIV4 (which is egg based), administer in medical setting under supervision of health care provider who can recognize and manage severe allergic reactions. May consult an allergist. Persons with underlying medical conditions (other than those listed under contraindications) that might predispose to complications after wild-type influenza virus infection [e.g., chronic pulmonary, cardiovascular (except isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)] Moderate or severe acute illness with or without fever

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. [cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html)

2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. [cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html)

3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at [fda.gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states](https://www.fda.gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states)

Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, United States, 2024

Vaccine	Contraindications ¹	Precautions ²
COVID-19 mRNA vaccines [Pfizer-BioNTech, Moderna]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a component of an mRNA COVID-19 vaccine⁴ 	<ul style="list-style-type: none"> Diagnosed non-severe allergy (e.g., urticaria beyond the injection site) to a component of an mRNA COVID-19 vaccine⁴; or non-severe, immediate (onset less than 4 hours) allergic reaction after administration of a previous dose of an mRNA COVID-19 vaccine Myocarditis or pericarditis within 3 weeks after a dose of any COVID-19 vaccine Multisystem inflammatory syndrome in children (MIS-C) or multisystem inflammatory syndrome in adults (MIS-A) Moderate or severe acute illness, with or without fever
Dengue (DEN4CYD)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) 	<ul style="list-style-type: none"> Pregnancy HIV infection without evidence of severe immunosuppression Moderate or severe acute illness with or without fever
Diphtheria, tetanus, pertussis (DTaP) Tetanus, diphtheria (DT)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For DTaP only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP or DTaP 	<ul style="list-style-type: none"> Guillain-Barré syndrome (GBS) within 6 weeks after previous dose of tetanus-toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine For DTaP only: Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy; defer DTaP until neurologic status clarified and stabilized Moderate or severe acute illness with or without fever Moderate or severe acute illness with or without fever
<i>Haemophilus influenzae</i> type b (Hib)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For Hiberix, ActHib, and PedvaxHIB only: History of severe allergic reaction to dry natural latex Less than age 6 weeks 	
Hepatitis A (HepA)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including neomycin 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Hepatitis B (HepB)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including yeast For Heplisav-B only: Pregnancy 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Hepatitis A- Hepatitis B vaccine [HepA-HepB, (Twinrix®)]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ including neomycin & yeast 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Human papillomavirus (HPV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Measles, mumps, rubella (MMR)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	<ul style="list-style-type: none"> Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product) History of thrombocytopenia or thrombocytopenic purpura Need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing Moderate or severe acute illness with or without fever
Meningococcal ACWY (MenACWY) [MenACWY-CRM (Menveo®); MenACWY-D (Menactra®); MenACWY-TT (MenQuadfi®)]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For MenACWY-D and Men ACWY-CRM only: severe allergic reaction to any diphtheria toxoid- or CRM197-containing vaccine For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine 	<ul style="list-style-type: none"> For MenACWY-CRM only: Preterm birth if less than age 9 months Moderate or severe acute illness with or without fever
Meningococcal B (MenB) [MenB-4C (Bexsero®); MenB-FHbp (Trumenba®)]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ 	<ul style="list-style-type: none"> Pregnancy For MenB-4C only: Latex sensitivity Moderate or severe acute illness with or without fever
Pneumococcal conjugate (PCV13)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid-containing vaccine or its component³ 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Pneumococcal polysaccharide (PPSV23)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ 	<ul style="list-style-type: none"> Moderate or severe acute illness with or without fever
Poliovirus vaccine, inactivated (IPV)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ 	<ul style="list-style-type: none"> Pregnancy Moderate or severe acute illness with or without fever
Rotavirus (RV) [RV1 (Rotarix®), RV5 (RotaTeq®)]	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe combined immunodeficiency (SCID) History of intussusception 	<ul style="list-style-type: none"> Altered immunocompetence other than SCID Chronic gastrointestinal disease RV1 only: Spina bifida or bladder exstrophy Moderate or severe acute illness with or without fever
Tetanus, diphtheria, and acellular pertussis (Tdap) Tetanus, diphtheria (Td)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not attributable to another identifiable cause within 7 days of administration of previous dose of DTP, DTaP, or Tdap 	<ul style="list-style-type: none"> Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid-containing vaccine History of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid-containing vaccine For Tdap only: Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized Moderate or severe acute illness with or without fever
Varicella (VAR)	<ul style="list-style-type: none"> Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component³ Severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised) Pregnancy Family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent 	<ul style="list-style-type: none"> Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product) Receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccination) Use of aspirin or aspirin-containing products Moderate or severe acute illness with or without fever

1. When a contraindication is present, a vaccine should NOT be administered. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. [cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html)

2. When a precaution is present, vaccination should generally be deferred but might be indicated if the benefit of protection from the vaccine outweighs the risk for an adverse reaction. Kroger A, Bahta L, Hunter P. ACIP General Best Practice Guidelines for Immunization. [cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html](https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html)

3. Vaccination providers should check FDA-approved prescribing information for the most complete and updated information, including contraindications, warnings, and precautions. Package inserts for U.S.-licensed vaccines are available at [fda.gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states](https://www.fda.gov/vaccines-blood-biologics/approved-products/vaccines-licensed-use-united-states)

Appendix

What's in Vaccines?

Type of Ingredient	Example(s)	Purpose	Most common source found...
Preservatives	Thimerosal (only in multi-dose vials of flu vaccine)*	To prevent contamination	From eating foods such as certain kinds of fish, mercury (which thimerosal contains) gets into the body
Adjuvants	Aluminum salts	To help boost the body's response to the vaccine	From drinking water, infant formula, or use of health products such as antacids, buffered aspirin, and antiperspirants
Stabilizers	Sugars, gelatin	To keep the vaccine effective after manufactured.	From eating food such as Jell-O® and resides in body naturally
Residual cell culture materials	Egg protein^	To grow enough of the virus or bacteria to make the vaccine	From eating foods containing eggs
Residual inactivating ingredients	Formaldehyde†	To kill viruses or inactivate toxins during the manufacturing process	Resides in body naturally (more in body than vaccines). Also found automobile exhaust, and household furnishing such as carpets and upholstery.
Residual antibiotics	Neomycin	To prevent contamination by bacteria during the vaccine manufacturing process	Antibiotics that people are most likely to be allergic to – like penicillin – aren't used in vaccines

* Thimerosal has a different form of mercury (ethylmercury) than the kind that causes mercury poisoning (methylmercury). It's safe to use ethylmercury in vaccines because it's processed differently in the body and it's less likely to build up in the body – and because it's used in tiny amounts. Even so, most vaccines do not have any thimerosal in them. Learn more about thimerosal, mercury, and vaccine safety.

^ Because influenza and yellow fever vaccines are both made in eggs, egg proteins are present in the final products. However, there are two new flu vaccines now available for people with egg allergies. People who have severe egg allergies should be vaccinated in a medical setting and be supervised by a health care professional who can recognize and manage severe allergic conditions.

† Formaldehyde is diluted during the vaccine manufacturing process, but residual quantities of formaldehyde may be found in some current vaccines. The amount of formaldehyde present in some vaccines is so small compared to the concentration that occurs naturally in the body that it does not pose a safety concern.

ARIZONA REQUIRED IMMUNIZATIONS

According to the Arizona Administrative Code R9-6-702 any child attending school, preschool, or child care in Arizona is required by law to be fully immunized at the ages and intervals consistent with the rules for their age (preschool/child care), or grade (K-12th grades) or have proof of immunity against the following diseases:

Diphtheria	Measles (rubeola)
Tetanus	Mumps
Pertussis	Rubella (German measles)
Hepatitis A (for child 1-5 years of age in childcare, required for Maricopa County)	Haemophilus influenza type b, for a child two months through 59 months of age
Hepatitis B	Varicella (chickenpox)
Poliomyelitis (Polio)	Meningococcal disease

Tuberculosis (TB) screening for students is not part of the Arizona school immunization law. If you have questions regarding TB disease or TB screening requirements, please contact your local health department's TB control program. At ADHS, the Office of Disease Integration and Services houses the Tuberculosis Control Program.

Information from Arizona Department of Health Services, for more information visit

azdhs.gov/documents/preparedness/epidemiology-disease-control/immunization/school-childcare/nofollow/school-childcare-immunization-guide.pdf (azdhs.gov)

Arizona MYIR

Arizona MyIR is a partnership between the Arizona Department of Health Services Immunization Program and Scientific Technologies Corporation. [Azdhs.gov/preparedness/epidemiology-disease-control/immunization/azmyir/index.php](https://azdhs.gov/preparedness/epidemiology-disease-control/immunization/azmyir/index.php) is a free website service that allows consumers to view and print copies of their own official vaccination records stored in the Arizona State Immunization Information System, ASIIS. Consumers can also obtain a QR code from MyIR for proof of COVID vaccines. When presented with an immunization record from MyIR, school and child care staff may accept it as an official record. Staff can log on to ASIIS to verify the data is correct.

Immunization records can also be obtained by submitting the online application ADHS Immunization Record Request Form and further questions or concerns can be addressed to the Records Team at Immunization_Record@azdhs.gov.

Exemption Forms

The Medical Exemption Form, the SCHOOL Personal Beliefs Exemption Form (for students in K-12 grades) and the CHILD CARE Religious Beliefs Exemption Form (for students in preschool, child care and Head Start programs) are posted at azdhs.gov/shots4schoolaz.

Please note that the ADHS forms are the only valid and acceptable forms of exemption. The ADHS form should not be altered. Child care facilities and schools should not accept any exemption form that is not the ADHS format or that appears to be altered.

MEDICAL EXEMPTIONS:

- **Permanent** - If the child has a permanent medical condition that contraindicates administration of one or more immunizations, the child can be exempted from the immunization(s). The ADHS Medical Exemption Form must be completed and signed by the child's physician (MD or DO) or nurse practitioner (NP) and parent/guardian and submitted before the child enters school or within 15 days of child care entry. The physician or nurse practitioner must indicate in writing on the ADHS Medical Exemption Form which immunization(s) are contraindicated against and the specific nature of the medical condition that precludes immunization. There is no expiration date or resubmission required for a permanent medical exemption.
- **Temporary** - A child whose physician (MD or DO) or nurse practitioner (NP) decides to postpone one or more immunizations because of a valid medical condition may attend school "on condition" that the needed dose(s) are obtained when the exemption expires. The physician or nurse practitioner must indicate in writing on the ADHS Medical Exemption form which immunization(s) will be postponed, the specific nature of the medical condition or circumstance that precludes immunization, and the date when the exemption ends or when the child is to be immunized. Once the length of time for the exemption has ended, the child must receive the necessary immunization(s) or be subject to exclusion from school or child care.

There is only one type of ADHS medical exemption form; there is a section for the physician to mark "Temporary" or "Permanent" depending on the nature of the child's condition. To attend child care or school, medically exempted children must receive all other vaccines except those listed on the exemption.

- **Laboratory Evidence of Immunity/Disease History** - If the child has history of having had a vaccine-preventable disease and the parent does not want the child immunized against the disease, proof of immunity to that disease must be submitted. A copy of the laboratory results that prove immunity must be kept on file, along with the ADHS Medical Exemption Form completed by the child's physician or nurse practitioner and parent/guardian. **A Medical Exemption Form with laboratory evidence of immunity is now required by state law for reported history of disease for measles, rubella and varicella.** A general physician statement of immunity is not allowable. For all other diseases, the Medical Exemption Form may contain either laboratory evidence of immunity or a physician statement of verified disease history. July 2024 Arizona Immunization Handbook for School and Child Care Immunization Requirements Page 18 Parents may sometimes submit a letter or prescription note signed by a medical provider because the parent does not want their child to receive a specific vaccine or the child is on an 'alternative schedule' for immunizations.

These are not acceptable or valid medical exemptions. Contact the parent and/or the physician to let them know that the submitted format is not a valid medical exemption form.

PERSONAL BELIEFS EXEMPTION:

For a child attending school in grades K-12, the child may be exempted from the applicable immunization requirements if the child's parent submits to the school a signed ADHS Personal Beliefs Exemption Form testifying that immunizations are against the personal beliefs of the parent. Each section of the Personal Beliefs Exemption Form must be completed and signed by the parent/guardian. This exemption only applies to students in grades K-12. **Child care centers, preschools and Head Start may not use personal belief exemptions.**

RELIGIOUS BELIEFS EXEMPTION:

For a child attending child care or preschool, the child may be exempted from the applicable immunization requirements if the child's parent submits to the child care facility a signed ADHS Religious Beliefs Exemption Form testifying that immunizations are against the religious beliefs of the parent. The Religious Beliefs Exemption Form must be completed and signed by the parent/guardian. This exemption only applies to child care centers, preschool and Head Start. **Grades K-12 may not use religious belief exemptions.**

NOTE: In the event of an outbreak of a vaccine-preventable disease, children who are exempt from vaccination for reasons other than laboratory evidence of immunity may be excluded from school or child care until the risk period for exposure ends. Schools and child care centers should seek guidance from their local county health department before excluding exempted children.

Information from Arizona Department of Health Services, for more information visit azdhs.gov/documents/preparedness/epidemiology-disease-control/immunization/school-childcare/nofollow/school-childcare-immunization-guide.pdf (azdhs.gov)

Resources

Important Telephone Numbers

STATE OFFICES

Arizona Immunization Program Office (AIPO) _____	602.364.3630
Arizona State Immunization Information System (ASIS) _____	602.364.3899
Toll-Free Number _____	877.491.5741
Arizona Department of Education - School Safety & Social Wellness _____	602.542.8700
ADHS - Child Care Facilities Licensing - Home _____	602.364.2539

COUNTY OFFICES

Apache County Public Health Services District _____	928.333.2415
Cochise Health and Social Services _____	520.432.9400
Coconino County Public Health Services District _____	928.679.7272
Gila County Division of Health & Emergency Services _____	928.425.3189
Graham County Health Department _____	928.428.0110
Greenlee County Health Department _____	928.865.2601
La Paz County Health Department _____	928.669.1100
Maricopa County Department of Public Health _____	602.506.6900
Immunization Program & Communicable Disease Reporting _____	602.506.6767
Mohave County Department of Public Health _____	928.753.0714
Navajo County Public Health Services District _____	928.532.6050
Pima County Health Department _____	520.724.7988
Immunization Program _____	520.724.7763
Pinal County Public Health Services District _____	520.866.7358
Santa Cruz County Health Department _____	520.375.7900
Mariposa Community Health Center for Santa Cruz _____	520.281.1550
Yavapai County Community Health Services _____	928.583.1000
Yuma County Public Health Services District _____	928.317.4559

Resources

Additional Resources

LAWS-RULES-STATUTES

Arizona Revised Statutes 15-871 through 15-874

Arizona Administrative Code, Title 9, Chapter 6, Article 7

azleg.gov/arsDetail/?title=15

apps.azsos.gov/public_services/Title_09/9-06.pdf

ARIZONA DEPARTMENT OF HEALTH SERVICES

Arizona Department of Health Services

Arizona Immunization Program Office

ADHS/AIPO School and Child Care Forms and Guidance

Arizona State Immunization Information System (ASIIS)

azdhs.gov

azdhs.gov/phs/immunization

azdhs.gov/shots4schoolaz

azdhs.gov/preparedness/epidemiology-disease-control/immunization/asiis/index.php

ARIZONA DEPARTMENT OF EDUCATION

Arizona Department of Education

Arizona Department of Education School Safety and Social Wellness

Arizona Department of Education Office of Homeless Education

ADHS Child Care Facilities Licensing Bureau

azed.gov

azed.gov/wellness

azed.gov/homeless

azdhs.gov/licensing/childcare-facilities/index.php

COLLEGE INFORMATION

American College Health Association (ACHA)

acha.org

VACCINE RESOURCES

The Arizona Partnership for Immunization (TAPI)

MyIR (My Immunization Record)

Centers for Disease Control & Prevention, Vaccines

American Academy of Pediatrics (AAP)

Immunization Action Coalition

Immunization Action Coalition - Ask the Expert

Pink Book: Epidemiology and Prevention of Vaccine-Preventable Diseases

Vaccine Adverse Event Reporting System (VAERS)

whyimmunize.org

myir.net

cdc.gov/vaccines

aap.org

immunize.org

immunize.org/askexperts

cdc.gov/vaccines/pubs/pinkbook/index.html

vaers.hhs.gov