




# Recommended Immunizations for Adults

Talk to your doctor or nurse about these vaccines:	If you are this age,					
	19 - 21 years	22 - 26 years	27 - 49 years	50 - 59 years	60 - 64 years	65+ years
Influenza (Flu) <sup>1</sup>	Get a flu vaccine every year					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>2</sup>	Get a Tdap vaccine once, then a Td booster vaccine every 10 years					
Varicella (Chickenpox)	2 doses					
HPV Vaccine for Women <sup>3</sup>	3 doses					
HPV Vaccine for Men <sup>3</sup>	3 doses	3 doses				
Zoster (Shingles)					1 dose	
Measles, mumps, rubella (MMR) <sup>4</sup>	1 or 2 doses					
Pneumococcal <sup>5</sup>	1 - 3 doses					1 dose
Meningococcal	1 or more doses					
Hepatitis A	2 doses					
Hepatitis B	3 doses					

 Boxes this color show that the vaccine is recommended for all adults who have not been vaccinated, unless your doctor or nurse tells you that you cannot safely receive the vaccine or that you do not need it.

 Boxes this color show when the vaccine is recommended for adults with certain risks related to their health, job or lifestyle that put them at higher risk for serious diseases. Talk to your doctor or nurse to see if you are at higher risk.

 No recommendation

**FOOTNOTES:**

(Influenza vaccine) <sup>1</sup>There are four different types of flu vaccines available—talk to your doctor or nurse about which flu vaccine is right for you.

(Tdap vaccine) <sup>2</sup>Pregnant women are recommended to get Tdap vaccine with each pregnancy to increase protection for infants who are too young for vaccination but at highest risk for severe illness and death from pertussis (whooping cough).

(HPV vaccine) <sup>3</sup>There are two different kinds of HPV vaccine but only one HPV vaccine (Gardasil®) can be given to men. Gay men or men who have sex with men who are 22 through 26 years old should get HPV vaccine if they haven't already started or completed the series.

(MMR vaccine) <sup>4</sup>If you were born in 1957 or after, and don't have a record of being vaccinated or having had these infections, talk to your doctor or nurse about how many doses you may need.

(Pneumococcal vaccine) <sup>5</sup>There are two different types of pneumococcal vaccine: PCV13 and PPSV23. Talk with your doctor or nurse to find out if one or both pneumococcal vaccines are recommended for you.

**If you are traveling outside of the United States, you may need additional vaccines. Ask your doctor or nurse which vaccines you may need.**

**For more information, call toll free 1-800-CDC-INFO (1-800-232-4636) or visit <http://www.cdc.gov/vaccines>**



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

## Vaccine-Preventable Diseases and the Vaccines that Prevent Them

### Diphtheria (Can be prevented by Tdap vaccine)

Diphtheria is a very contagious bacterial disease that affects the respiratory system, including the lungs. Diphtheria bacteria can be passed from person to person by direct contact with droplets from an infected person's cough or sneeze. When people are infected, the diphtheria bacteria produce a toxin (poison) in the body that can cause weakness, sore throat, low-grade fever, and swollen glands in the neck. Effects from this toxin can also lead to swelling of the heart muscle and, in some cases, heart failure. In severe cases, the illness can cause coma, paralysis, and even death.

### Hepatitis A (Can be prevented by HepA vaccine)

Hepatitis A is an infection in the liver caused by hepatitis A virus. The virus is spread primarily person-to-person through the fecal-oral route. In other words, the virus is taken in by mouth from contact with objects, food, or drinks contaminated by the feces (stool) of an infected person. Symptoms include fever, tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, and jaundice (yellowing of the skin and eyes). An infected person may have no symptoms, may have mild illness for a week or two, or may have severe illness for several months that requires hospitalization. In the U.S., about 100 people a year die from hepatitis A.

### Hepatitis B (Can be prevented by HepB vaccine)

Hepatitis B is an infection of the liver caused by hepatitis B virus. The virus spreads through exchange of blood or other body fluids, for example, from sharing personal items, such as razors, diabetes blood sugar monitors, or during sex. Hepatitis B causes a flu-like illness with loss of appetite, nausea, vomiting, rashes, joint pain, and jaundice. The virus stays in the liver of some people for the rest of their lives and can result in severe liver diseases, including fatal cancer.

### Human Papillomavirus (Can be prevented by HPV vaccine)

Human papillomavirus is a common virus. HPV is most common in people in their teens and early 20s. It is the major cause of cervical cancer in women, as well as anal cancer and genital warts in both women and men. The strains of HPV that cause cervical cancer and genital warts are spread during sex.

### Influenza (Can be prevented by annual flu vaccine)

Influenza is a contagious viral infection of the nose, throat, and lungs. The virus spreads when an infected person coughs, sneezes, or talks and can cause mild to severe illness. Typical symptoms include a sudden high fever, chills, cough, headache, runny nose, sore throat, and muscle and joint pain. Extreme fatigue can last from several days to weeks. Influenza may lead to hospitalization or even death, even among previously healthy children and adults.

### Measles (Can be prevented by MMR vaccine)

Measles is one of the most contagious vaccine-preventable

diseases. Measles virus is spread by direct contact with the airborne respiratory droplets of an infected person. Measles is so contagious that just being in the same room after a person who has measles has already left can result in infection in a susceptible person. Symptoms usually include a rash, fever, cough, and red, watery eyes. Fever can be high rash can last for up to a week, and coughing can last about 10 days. Measles can also cause pneumonia, seizures, brain damage, or death.

### Meningococcal Disease (Can be prevented by MCV vaccine)

Meningococcal disease is caused by bacteria and is a leading cause of bacterial meningitis (infection around the brain and spinal cord) in children. The bacteria are spread through the exchange of nose and throat droplets, such as when coughing, sneezing or kissing. Symptoms of meningitis include sudden onset of fever, headache and stiff neck, often with nausea, vomiting, sensitivity to light, and confusion. Meningococcal disease also causes blood infections. About one of every ten people who get the disease dies from it. Survivors of meningococcal disease may lose their arms or legs, become deaf, have problems with their nervous systems, become developmentally disabled, or suffer seizures or strokes.

### Mumps (Can be prevented by MMR vaccine)

Mumps is an infectious disease caused by the mumps virus, which is spread in the air by a cough or sneeze from an infected person. A person can also get infected with mumps by coming in contact with a contaminated object, like a toy. The mumps virus causes fever, headaches, painful swelling of the salivary glands under the jaw, fever, muscle aches, tiredness, and loss of appetite. Severe complications for people who get mumps are uncommon, but can include meningitis (infection of the covering of the brain and spinal cord), encephalitis (inflammation of the brain), permanent hearing loss, or swelling of the testes, which rarely can lead to sterility in men.

### Pertussis (Whooping Cough) (Can be prevented by Tdap vaccine)

Pertussis is caused by bacteria spread through direct contact with respiratory droplets when an infected person coughs or sneezes. In the beginning, symptoms of pertussis are similar to the common cold, including runny nose, sneezing, and cough. After 1-2 weeks, pertussis can cause spells of violent coughing and choking, making it hard to breathe, drink, or eat. This cough can last for weeks. Pertussis is most serious for babies, who can get pneumonia, have seizures, become brain damaged, or even die. More than half of children under 1 year of age who get pertussis are hospitalized.

### Pneumococcal Disease (Can be prevented by Pneumococcal vaccine)

Pneumonia is an infection of the lungs that can be caused by the bacteria called pneumococcus. This bacteria can cause other types of infections too, such as ear infections, sinus infections, meningitis (infection of the covering around the brain and spinal cord), bacteremia and sepsis (blood stream infection). Sinus and ear infections are usually mild and are much more common than the more severe forms of pneumococcal disease. However, in some

cases pneumococcal disease can be fatal or result in long-term problems, like brain damage, hearing loss and limb loss. Pneumococcal disease spreads when people cough or sneeze. Many people have the bacteria in their nose or throat at one time or another without being ill—this is known as being a carrier.

### Rubella (German Measles) (Can be prevented by MMR vaccine)

Rubella is caused by a virus that is spread through coughing and sneezing. In children rubella usually causes a mild illness with fever, swollen glands, and a rash that lasts about 3 days. Rubella rarely causes serious illness or complications in children, but can be very serious to a baby in the womb. If a pregnant woman is infected, the result to the baby can be devastating, including miscarriage, serious heart defects, mental retardation and loss of hearing and eye sight.

### Tetanus (Lockjaw) (Can be prevented by Tdap vaccine)

Tetanus is caused by bacteria found in soil, dust, and manure. The bacteria enters the body through a wound, such as a deep cut. When people are infected, the bacteria produce a toxin (poison) in the body that causes serious, painful spasms and stiffness of all muscles in the body. This can lead to "locking" of the jaw so a person cannot open his or her mouth, swallow, or breathe. Complete recovery from tetanus can take months. Ten to 20% of people who get tetanus die from the disease.

### Varicella (Chickenpox) (Can be prevented by varicella vaccine)

Chickenpox is caused by the varicella zoster virus. Chickenpox is very contagious and spreads very easily from infected people. The virus can spread from either a cough, sneeze. It can also spread from the blisters on the skin, either by touching them or by breathing in these viral particles. Typical symptoms of chickenpox include an itchy rash with blisters, tiredness, headache and fever. Chickenpox is usually mild, but it can lead to severe skin infections, pneumonia, encephalitis (brain swelling), or even death.

### Zoster (Shingles, Herpes Zoster) (Can be prevented by the zoster vaccine)

Shingles is caused by the varicella zoster virus, the same virus that causes chickenpox. After a person recovers from chickenpox, the virus stays in the body in a dormant (inactive) state. For reasons that are not fully known, the virus can reactivate years later, causing shingles. Almost 1 out of every 3 people in the United States will develop shingles, also known as zoster or herpes zoster. About half of all cases occur among men and women 60 years old or older. People who develop shingles typically have only one episode in their lifetime. In rare cases, however, a person can have a second or even a third episode. Herpes zoster is not caused by the same virus that causes genital herpes, a sexually transmitted disease.

**If you have any questions about vaccines, talk to your doctor or nurse.**