



Mid-Maryland Internal Medicine

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Vaccines – They're not Just for Kids

Getting immunized is a lifelong job. Vaccines are safe, effective, freely-available and essential. Nonetheless the 2012 US National Interview Health Survey found that too few adults are getting their recommended vaccines. And according to the Center for Disease Control, thousands of adults each year suffer serious health problems, are hospitalized, and even die due to diseases for which vaccines are available.

What You Need to Know About Vaccines

- There are vaccines every adult needs, and additional vaccines may be recommended depending on your specific health condition.
- Vaccines can prevent conditions that affect adults, including influenza, pneumococcal disease, hepatitis B, human papillomavirus which may cause cervical cancer, and more
- Vaccines don't just protect you, they also protect people around you who are not immune to diseases and may be able to contract them from you
- Side effects can occur with any medication, but vaccines are extremely safe. You may have read about some people who believe that vaccines are related to autism in children. This belief is based on a single article that was published in a medical journal in 1998. The study the article was based on has since been discredited, the article was retracted, the author was charged with misconduct and the results have been contradicted by many subsequent studies.

Learn
More



[Download a document](#)
that shows recommended
vaccines by age and
medical condition.

Frequently Asked Questions

Q. Can I get a vaccine if I'm allergic to eggs?

A. Some vaccines contain egg proteins. Even if you're allergic to eggs, these vaccines are generally safe, however, in some people, these vaccines can pose a risk of triggering an allergic reaction.

- Flu (influenza) vaccines sometimes contain small amounts of egg proteins. However, a flu vaccine that doesn't contain these proteins is approved for use in adults age 18 and older. And even vaccines that do have egg proteins can be given safely to most people with egg allergy without any problems. If you have had a reaction to eggs in the past, talk to your doctor before getting a flu vaccination.
- Yellow fever vaccine can provoke an allergic reaction in some people who have egg allergy. It's given to travelers entering countries where there's a risk of contracting yellow fever. It's not generally recommended for people with egg allergy, but is sometimes given under medical supervision after testing for a reaction.

- Other vaccines are generally not risky for people who have egg allergy. But ask us, just to be safe. After talking with you, if we are concerned about a particular vaccine that you need, we may recommend a test to see whether a vaccine is likely to cause a reaction.

Q. I hate shots. Is there any other way to get a vaccine?

A. Most vaccines are given by hypodermic injection only because they are not absorbed well through the intestines or skin, and many vaccines do not work reliably unless they are injected. One common exception is the flu vaccine nasal spray. However, some research has suggested that may be less effective in the elderly than a traditional flu shot.

Q. I'm travelling soon. Are there any special vaccines I need?

A. If you'd like to research this yourself, go to the Center for Disease Control website www.CDC.gov and click on the *Travelers' Health* link. Better yet, schedule an appointment to come in and talk with us about recommendations and advice about how to obtain what you need. For example, while most vaccines are available at local pharmacies, some, like the Yellow Fever vaccine, require you to go to a special travel clinic.

Q. Where can I get vaccinated?

A. A flu vaccine is included in your membership fee, and in most cases you can just stop by the office and get one. For other needs, most pharmacies provide vaccination services. Some vaccines may require a doctor's prescription, or need to be pre-ordered, so it's best to call first.

Q. Does my insurance cover the cost of vaccines?

A. As a member of Mid-Maryland Internal Medicine, you are entitled to an annual flu vaccine at no cost. Other vaccines you need may be covered by Medicare or private insurance and can typically be obtained at a pharmacy. It is always best to check price and insurance coverage with the pharmacist before receiving the shot.

Q. I have kidney disease (or heart disease or a weakened immune system). What vaccines do I need?

A. The Center for Disease Control has created a document that identifies vaccines to consider based on age and medical condition. You can [download it here](#).

Immunizations You Should Consider

There are vaccines every adult needs, and additional vaccines may be recommended depending on your specific health condition. These are some vaccines most commonly needed by adults.

Influenza ("Flu")

Influenza is a serious disease that can lead to hospitalization and even death. Even healthy people can get very sick from the flu and spread it to others. As many as 50,000 people have died as the result of the flu during an active season. During a regular flu season, about 90 percent of deaths occur in people 65 years and older.



Influenza Vaccine

The seasonal flu vaccine protects against the particular influenza viruses that research indicates

will be most common during the upcoming season. Because of this, each year flu vaccine is slightly different. The flu virus can mutate as it travels the globe, sometimes resulting in decreased effectiveness of a particular season's vaccine.

Flu vaccines cause antibodies to develop in the body about two weeks after vaccination. These antibodies provide protection against infection with the viruses that are in the vaccine. Since it takes about two weeks after vaccination for antibodies to develop, it is best that people get vaccinated early enough so they are protected before influenza begins spreading in their community.

Flu vaccination should begin soon after vaccine becomes available, ideally by October. While seasonal influenza outbreaks can happen as early as October, during most seasons influenza activity peaks in January or later.

Pneumococcal Disease

Pneumococcal disease is an infection caused by *Streptococcus pneumoniae* bacteria, sometimes referred to as pneumococcus. Pneumococcus can cause many types of illnesses, including pneumonia, ear infections and meningitis. In the United States, about 1 million people are hospitalized annually with pneumonia, and about 50,000 people die from the disease or its complications.

Pneumococcal bacteria can be spread from person-to-person by direct contact with respiratory secretions, like saliva or mucus. Anyone can get pneumococcal disease, but some people are at greater risk for disease than others. These include adults 65 years of age and older, and all adults with chronic illnesses like lung, heart, liver or kidney disease, diabetes or alcoholism, adults living in nursing homes or long-term care facilities, adults who smoke and adults with cochlear implants.



Pneumococcal Vaccine

For years, the primary vaccine against Pneumococcal disease was Pneumovax (PPSV23). A primary vaccination was recommended for all adults over 65, with a booster at ten years. There is now a second vaccine, Prevnar-13, which offers greater protection against additional strains of the bacteria.

According to the latest recommendation by the CDC, adults who have NEVER received either vaccine should begin with the Prevnar-13 vaccine, followed by Pneumovax, spaced out by at least 6-12 months. Individuals with chronic health conditions may require immunizations sooner and should check with their doctor.

These pneumococcal vaccines are highly effective. Since routine vaccine introduction in the United States, rates of invasive pneumococcal disease caused by the types of pneumococcal bacteria included in the vaccine have declined by 99%.

The cash price for Pneumovax-23 is around \$95 at local pharmacies, Prevnar-13 is around \$200. Insurance coverage will vary.

Tetanus

Tetanus (lockjaw) is a serious disease that causes painful tightening of the muscles, usually all over the body. It can lead to "locking" of the jaw so the victim cannot open his mouth or swallow. Tetanus leads to death in about 1 in 10 cases.

Tetanus is different from other vaccine-preventable diseases because it does not spread from person to person. The bacteria are usually found in soil, dust and manure and enter the body through breaks in the skin - usually cuts or puncture wounds caused by contaminated objects.

Today, tetanus is uncommon in the United States, with an average of 29 reported cases per year from 1996 through 2009. However, the reason it is so uncommon is because the tetanus vaccine is so freely

available. Nearly all cases of tetanus are among people who have never received a tetanus vaccine, or adults who don't stay up to date on their 10-year booster shots.



Tetanus Vaccine

The current tetanus vaccine comes in several forms, most commonly Td which includes a diphtheria booster. Vaccination is the most effective step you can take to be protected from this serious disease. Generally speaking, Tetanus boosters should be obtained every 10 years, especially if you have a cut or other injury that breaks the skin and is dirty. The Tetanus vaccine is extremely safe, but many physicians recommend that you postpone getting the vaccine if you are very sick. As with all vaccines, there can be minor reactions, including pain and redness at the injection site, headache, fatigue or a vague feeling of discomfort.

The cash price for Td at local pharmacies is around \$50. Insurance coverage will vary.

Pertussis (Whooping Cough)

Pertussis, also known as whooping cough, is a highly contagious respiratory disease. It is caused by the bacterium *Bordetella pertussis*. Pertussis is known for uncontrollable, violent coughing which often makes it hard to breathe. After fits of many coughs, someone with pertussis often needs to take deep breaths which result in a "whooping" sound. While Pertussis is typically thought of as a disease that primarily affects children, recent research indicates that adults are at risk and should get a pertussis booster vaccine. Five out of 100 adults with pertussis end up in the hospital.



Pertussis Vaccine

You may have seen recent ads encouraging you to get a "Whooping cough" booster. The CDC has recently changed their recommendations and now encourage **ALL** adults to get a one-time pertussis booster. In the United States, this booster only comes combined with the Tetanus/diphtheria vaccine, known as Tdap (**T**etanus/**d**iphtheria/**a**cellular **p**ertussis). This can be given at any time in place of a regular tetanus booster.

You should generally not get a pertussis vaccine if you have seizures, have Guillain Barré Syndrome, or are very ill on the day of the vaccination appointment. The cash price of a Tdap (Boostrix) is around \$63. Insurance coverage varies.

Shingles

Almost 1 out of every 3 people in the United States will develop shingles, also known as zoster or herpes zoster, in their lifetime. There are an estimated 1 million cases of shingles each year in this country. The risk of shingles increases as you get older. About half of all cases occur in men and women 60 years old or older.

The most common complication of shingles is a condition called post-herpetic neuralgia (PHN). People with PHN have severe pain in the areas where they had the shingles rash, even after the rash clears up. The pain from PHN may be severe and debilitating, but it usually resolves in a few weeks or months in most patients. Some people can have pain from PHN for many years. As people get older, they are more likely to develop PHN, and the pain is more likely to be severe. PHN occurs can occur in up to a third of untreated people who are 60 years of age and older.

Shingles may also lead to serious complications involving the eye. Very rarely, shingles can also lead to pneumonia, hearing problems, blindness, brain inflammation (encephalitis) or death.



Shingles Vaccine (Zostavax)

The only way to reduce the risk of developing shingles and the long-term pain from post-herpetic neuralgia (PHN) is to get vaccinated. Even people who have had shingles can receive the

vaccine to help prevent future occurrences of the disease. The Center for Disease Control's Advisory Committee on Immunization Practices (ACIP) has approved the vaccine for anyone over 50, but recommends the shingles vaccine for people aged 60 years and older because your risk for developing shingles increases as you get older.

Shingles vaccine is typically available in pharmacies. The cash price is around \$235. Insurance coverage varies.