

# Adult Vaccines-What Do I Need to Know?

### Katherine Jury, MS

Senior Extension Specialist for Family and Consumer Sciences Extension

### Joann Lianekhammy, PhD

Senior Extension Specialist for Family and Consumer Sciences Extension

### Introduction

The word vaccine can bring up a lot of frustration, fear, and confusion for some people. Perhaps you have some of the following concerns:

- I'm confused about how vaccines work.
- Are the vaccine side effects worse than the actual disease?
- Are they safe for me?
- I'm not against them, I just don't know which ones I should get.

These questions and any others you may have are normal and natural. Vaccines aren't always easy to understand, and their safety and scheduling can be even more confusing. Learning the answers to some of these questions and knowing how to start a vaccine conversation with your health-care provider can help you decide how, when, and which vaccines are right for you.

### **How Vaccines Work**

It is important to understand how vaccines work before deciding if they are right for you. You may have questions about how vaccines can protect you from getting sick. Vaccines help your body defend itself from certain diseases; this is called building immunity. Immunity is the protection you receive



when your body knows how to successfully defeat the germs that cause infections. Typically, your immune system must experience a certain germ once before being able to fight back against it in the future. Most of the time, the body does this on its own, but sometimes it needs help.

Unfortunately, some germs are so powerful that they can cause life-threatening illness or death to you or a loved one you may pass your illness to. This is where vaccines help. A vaccine uses a dead or weakened version of a germ, so it doesn't have the power to make you seriously ill like the disease can. With the vaccine, your body builds defense against the disease without having to get the disease.

Vaccines work by imitating an infection which engages your body's natural defense system and teaches your body to produce antibodies. Antibodies are germ-fighting cells that attack infection and protect your body from severe effects of diseases. Your body will recognize that disease in the future when exposed to those germs and make the right antibodies to fight the disease. Then, you are much less likely to get sick at all or have serious symptoms.

Your body's immune response to a vaccine may make you to feel tired or uncomfortable for a short time, but the resulting protection that you receive from it can last for years.

### Why Take Vaccines?

Infections can happen at any time and can have long-term health consequences. Certain infections cause immediate damage, while others can linger in the body for years and resurface as life-threatening diseases later in life. After you catch the disease, all you can do is treat the symptoms. Vaccines are particularly important for diseases that can spread quickly and have fewer options for successful treatment. In some cases, vaccines can completely protect you from a specific disease. In other cases, it can reduce your chances of becoming seriously ill or dying from a disease.

It's also Important to know that getting vaccinated is not just for you. It can also protect other people in your community. For those who cannot receive a vaccine, living among vaccinated people can supply protection by decreasing the amount of people spreading germs around them. This is called community immunity. While community immunity cannot provide complete protection, it can be a valuable tool for at-risk populations such as young children, people with cancer, or those who are immune suppressed.

## Things to Consider before Vaccinating

Certain vaccinations are not recommended for some people based on existing health conditions that can increase their risk for a serious reaction to the vaccine.



Who may need extra guidance on whether they should take vaccines? People with:

- ✓ chronic health conditions (heart disease, lung disease, etc.),
- ✓ severe allergies or who have already had an allergic reaction to a vaccine,
- ✓ weakened immune systems, history of being in a coma, and
- ✓ nervous system diagnoses such as seizures.

Although these people are at risk, there are some situations in which a vaccine might still outweigh the risk and may provide further benefits. For instance, people with lung or heart conditions may further protect themselves by getting vaccinated for the flu. People with extra risk factors should reach out to their medical provider, instead of assuming that vaccines are not appropriate for them. Their doctor or pharmacist can help them decide whether a vaccine may put them at greater risk than not getting vaccinated.

For those who don't have a medical condition that may be a risk factor, it is still a good idea to speak with your health-care provider to see which vaccines they recommend for you. Your provider will take your medical history as well as any concerns you may have about the vaccine into account.

### Possible Side Effects

Concerns about side effects may prevent a person from considering a vaccine. Just like with medications, it is important to understand the difference between a mild and a severe side effect. This is often confused and leads to fear of vaccines. Mild side effects go away within a few days and are not severe compared to the potential effects of the actual disease. Severe side effects are rare and only occur in one or two people in a million doses given.

The table below shows the comparison of expected mild side effects and these very rare, severe side effects. So, the next time a friend says they had a bad reaction to a vaccine they may just be speaking of mild side effects that are still small compared to the disease risks.

Although not dangerous, mild side effects can still be a pain. Consider scheduling your vaccines on a day that you will have some recovery days following. For example, if you are getting a shingles vaccine for the first time, don't schedule it the day before your big summer vacation to Florida or a big deadline at work.

### Vaccine Schedules

Adults may be confused about what vaccines they are supposed to get and when. For children, these vaccines are scheduled out and mandated by day cares and schools. For adults, it is often not as clear as to what vaccines we need and at what age. Some are one and done, while others may require more than one dose, or need to be given yearly or years apart. There are also certain vaccines that are recommended for people with specific jobs. These jobs might put them more at risk for a certain illness. For example, people who work with heavy machinery are recommended to get a tetanus shot. There are also recommendations for travelers who are going to a part of the world where other types of diseases exist.

To help you determine what vaccines you need and when, refer to the appendix for a useful vaccination schedule outlining vaccines for adults. Please remember, this is a guide. You should discuss your vaccine needs with your primary care provider.

**TABLE 1.** Information about mild to serious side effects that can occur with vaccination.

MILD SIDE EFFECTS	Mild side effects can include: - pain, redness, or swelling around the area of the shot - fever, - chills, - headache, - muscle and joint aches, - fatigue, etc. Most mild side effects are better within a few days.
SEVERE SIDE EFFECTS	More serious allergic reactions to a vaccination can include: - difficulty breathing, - swelling in your face or throat, - increased heart rate, - body rash, and/or - dizziness and weakness.

### Benefits of Vaccines

Scheduling vaccines takes time and may cause pesky side effects. Why is it worth the hassle?

Did you know...

- Being vaccinated for the flu may reduce the risk of a flu-related visit to the intensive care unit by 82%.
- The shingles vaccine is more than 90% effective in protecting against shingles and common shingles complications.
- Someone who is unvaccinated for Covid is 10 times more likely to be hospitalized if they contract the disease.
- In the end, it is your choice to get vaccinated, using the information provided to make the healthiest choice for you and your family.

### References

- Centers for Disease Control and Prevention (2023, May 24) Explaining how vaccines work.

  Centers for Disease Control and Prevention. https://www.cdc.gov/vaccines/hcp/conversations/understanding-vacc-work.html
- Office of Infectious Disease and HIV/AIDS Policy (OIDP) (2022, May 6) Vaccines protect you. HHS.gov. https://www.hhs.gov/immunization/basics/work/prevention/index.html

- World Health Organization (n.d.) How do vaccines work? World Health Organization. https://www.who.int/news-room/feature-stories/detail/how-do-vaccines-work
- Centers for Disease Control and Prevention (2020, April 2). Who Should NOT Get Vaccinated with these Vaccines? https://www.cdc.gov/ vaccines/vpd/should-not-vacc.html
- Centers for Disease Control and Prevention (2023, August 1). Contraindications and Precautions. https://www.cdc.gov/vaccines/hcp/acip-recs/ general-recs/contraindications.html
- Centers for Disease Control and Prevention (2021, March 30). Understanding Adverse Events and Side Effects. https://www.cdc.gov/ vaccinesafety/ensuringsafety/sideeffects/index. html
- U.S. Department of Health and Human Services (2022, May 6). Vaccine Side Effects. https://www.hhs.gov/immunization/basics/safety/side-effects/index.html
- Centers for Disease Control and Prevention (2023, November 16). Adult Immunization Schedule by Age: Recommendations for Ages 19 Years or Older, United States, 2024. https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html

Copyright © 2024 for materials developed by University of Kentucky Cooperative Extension. This publication may be reproduced in portions or its entirety for educational or nonprofit purposes only. Permitted users shall give credit to the author(s) and include this copyright notice.

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior civil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.