

Let's talk about vaccines, those important shots that keep you, your loved ones, and your neighbors healthy. We'll review how vaccines work in easy-to-understand language, bust some common myths, and give you the facts you need to feel confident about rolling up your sleeve.

### Why Are Vaccines Important?

Vaccines save lives. They're one of the best ways to protect against serious diseases that can make you very sick, send you to the hospital, or even cause death. Getting vaccinated protects you and those around you, like babies, older adults, and people who can't get certain vaccines because of health problems. This is called *community protection* or *herd immunity*.





## **How Do Vaccines Work?**

Here's an easy way to think of it:

Think of your body's *immune system* as an army that protects you from germs (like viruses and bacteria).

When you get a vaccine, you're giving your army "practice rounds." The vaccine doesn't cause the real disease, but it teaches your body how to fight off specific germs if they ever show up.

Later, if the real germ comes around, your army is ready. They identify the enemy, and they fight back fast to protect you. You may never get sick at all, or if you do, the illness will likely be much milder.

### Why Focus on Flu and Pneumonia Shots?

Every year, flu (influenza) and pneumonia put thousands of people in the hospital and can even lead to death, especially for older adults and people with certain health conditions. These two vaccines are especially important:

- Flu Shot: Get it every fall. Even healthy adults can get very sick from flu. The shot can stop you from getting very sick, and it means fewer missed days of school and work.
- Pneumococcal Vaccine (Pneumonia Shot): Protects you from serious lung infections and things that can happen when someone has pneumonia and complications like sepsis (the body's extreme response to an infection). It is especially important for adults over 50 and people with ongoing health problems.

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#### What Diseases Do Vaccines Prevent?

Here's a table to help you understand what vaccines protect you from and a simple, plain-English description of each disease:

Disease & Vaccine	What it Is/Symptoms	Why Vaccine Protection Matters
Flu (Influenza)	Fever, chills, cough, body aches, tiredness.	Can lead to pneumonia, hospital stays, and even death. It is especially harmful to older adults, people with chronic health problems, and people living in nursing homes.
Pneumococcal Disease (Pneumonia Shot)	Fever, cough, chest pain, trouble breathing, confusion.	Older adults, people in nursing homes, and people with chronic health problems are at higher risk. Can cause severe lung infections (pneumonia), blood infections, or meningitis (brain swelling). It can cause serious complications or even death.
COVID-19	Bad cough, fever, headache, tiredness, shortness of breath, body aches.	Older adults, people in nursing homes, and people with chronic health problems are at higher risk. Can cause long-term problems in multiple organ systems and has led to millions of deaths worldwide.
Shingles	Painful rash, sometimes with burning or tingling skin.	Nerve pain can last months or years after the rash is gone. Can cause hearing loss, tinnitus, vertigo, and facial paralysis. Worse for people over 50.
Measles, Mumps, Rubella (MMR)	Measles: fever, rash; Mumps: swollen cheeks/jaw; Rubella: fever, rash.	Can cause brain swelling, heart problems, hearing loss, and death. Birth defects can occur if a woman becomes sick with these diseases while pregnant.
Tetanus, Diphtheria, Pertussis (Tdap/Td)	<b>Tetanus:</b> involuntary muscle spasms, jaw cramping (lock-jaw), seizures; <b>Diphtheria:</b> Thick gray mucous build up in the nose and throat, difficulty breathing, and swallowing.; <b>Pertussis:</b> Severe coughing fits, life threatening pauses in breathing.	Tetanus: Can cause seizures, muscle spasms severe enough to fracture bones, difficulty breathing due to blocked airways, and death.  Diphtheria: Can cause heart failure, brain injury, coma, and death.  Pertussis: Can cause pneumonia, death, especially dangerous for babies.
Chickenpox (Varicella)	Itchy blisters, fever.	Can cause skin infections, pneumonia, and brain swelling. Riskier for adults. Can later lead to shingles.
<b>HPV</b> (Human Papillomavirus)	No symptoms at first. Later: warts, can cause cancer in men and women.	Main cause of cervical cancer in women; can cause other cancers too.
HIB (Haemophilus influenza type B)	Different from the flu. Can infect lungs, brain, spinal cord, bloodstream, tissue covering your windpipe, ears, sinuses. Causes fever, chills, difficulty breathing, severe sore throat, cough, tiredness, shortness of breath, depending on where the infection is.	Can result in hearing loss, seizures, learning disabilities, loss of limbs from severe bloodstream infections, and death.
Hepatitis A & B	Fever, stomach pain, muscle and joint pain, yellow skin/eyes, tiredness, vomiting.	Hepatitis A lasts from weeks to a few months and can cause liver failure in rare cases. Hepatitis B does not have a cure and can become chronic illness. Can lead to long-term liver damage or cancer.
Meningococcal Disease	Severe headache, sensitivity to light, stiff neck, fever, confusion. Can progress rapidly.	Can cause brain infection and swelling of the brain and spinal cord (meningitis). Can cause balance problems, seizures, hearing loss, vision loss, kidney problems, blood clots that result in loss of fingers, toes, arms, and legs, or death in hours. Risk is higher in teens, young adults.
RSV (Respiratory Syncytial Virus)	Bad cold with cough, headache, trouble breathing, wheezing, tiredness.	Dangerous for infants and for adults over 60, and it is especially dangerous for those over 75. People in nursing homes and people with chronic health conditions are at high risk. Can cause severe illness like pneumonia or a narrowing of the airways that is very dangerous to infants.
Polio	Starts like the flu can have symptoms similar to meningitis such as severe headache.	Used to paralyze thousands of children a year before vaccines, without vaccines this virus re-emerges and spreads. Over 20 million people are able to walk today who would have been paralyzed without vaccines. Can cause muscle weakness, loss of muscle, life-long paralysis in the lower legs and can spread to arms. Paralysis of the breathing muscles can result in death.

# BUSTING THE MYTHS The Real Truth About Vaccines

Let's set the record straight on some things you might have heard.

**MYTH:** Vaccines aren't tested and "I don't want to be a guinea pig."

FACT: Vaccines are tested very carefully—for years before you can get them. Scientists and doctors make sure they're safe and work well. Even after approval, vaccines are always checked for side effects. You are NOT a guinea pig! Bonus Fact: Many people don't know that mRNA vaccines, like some of the COVID vaccines, are not new - they were in development and tested for over 30 years. That is why they were able to rapidly use the technology so quickly during COVID.

#### **MYTH**: Vaccines cause the illnesses they're meant to prevent.

FACT: You can't get the flu from a flu shot, and you can't get COVID-19 from the COVID shot. Sometimes, people feel mild side effects, like a sore arm or a low fever, which is your body building protection. If you do get sick after your vaccine, it might be a different virus, or you might have been exposed before the shot had a chance to work. On average, it takes about 3 weeks for your body to build immunity after a vaccine.

#### MYTH: Vaccines cause autism.

**FACT:** Many studies from around the world show that vaccines do NOT cause autism. This claim has been fully disproven by science. The largest vaccine study ever followed 1.2 million children for 24 years and found vaccines do not cause autism or 49 other health conditions.

**MYTH:** Vaccines aren't necessary; "people should just get sick naturally."

**FACT:** Getting the "natural" disease can be dangerous or deadly—for you and the people around you. For example: flu, pneumonia, and measles kill thousands every year. Getting the shot is much safer than risking severe illness.

#### MYTH: "I got the flu even though I had my shot. Was it worth it?"

**FACT:** This is a common worry. Here's why you should still get your vaccine:

- Sometimes, people catch a different strain of flu than what's in the shot, or get exposed before the vaccine "kicks in."
- Even if you do get sick, the vaccine makes your illness **milder** you're less likely to end up in the hospital, have pneumonia, get blood infections, lose limbs, or die.
- The flu and pneumonia shots protect the most vulnerable: grandparents, babies, people with weak immune systems. Your shot helps protect them, too.
- Studies show that flu and pneumonia vaccines save lives every year!

## My Adult Vaccine Checklist & Record

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Flu (Influenza)	<b>*</b>	Every adult, every year (every flu season)
NEXT DOSE DUE	?	1 each year  Get each fall for best protection
Pneumococcal  DATE(S) RECEIVED	*No.	All adults age 50+; adults 19–49 with certain long-term health problems  1 or 2
NEXT DOSE DUE	?	Ask which version is right for you
DATE(S) RECEIVED  NEXT DOSE DUE		When Should Adults Get It? 1 dose for adults 19 -64; 2 doses for age 65 or older  How Many Doses? 1 or 2  Extra Info/Questions: Yearly in the fall; May need more than 1 dose if younger 65 but have specific health issues
DATE(S) RECEIVED		60+ years (always); 50–59 with health risks (ask your HCP)  1  Ask about risks if 50–59 years
Tdap/Td  DATE(S) RECEIVED		1 dose Tdap as an adult, then Tdap or Td booster every 10 years. 1 dose Tdap during each pregnancy
NEXT DOSE DUE	**************************************	1+ boosters  Booster = shot to keep you protected
Shingles (Zoster)  DATE(S) RECEIVED		All adults age 50 and older
NEXT DOSE DUE	?	Even if you had chickenpox as a child, you should get a shingles vaccine
MMR (Measles, Mumps, Rubella)		Most born after 1957 should get this as an adult if never had 2 doses or aren't sure.
NEXT DOSE DUE	?	Ask if you have never had these diseases or are unsure about your history
Chickenpox (Varicella)		Adults born after 1980 who never had chickenpox or haven't had 2 shots

Ask if you're unsure about your history

DATE(S) RECEIVED

NEXT DOSE DUE

Some shots are recommended for everyone; others are only needed for certain people. Ask your health-care professional which ones are right for you.

## My Adult Vaccine Checklist & Record (FOR PERSONAL USE)

HPV

DATE(S) RECEIVED

NEXT DOSE DUE

All adults up to age 26; some ages 27–45 (ask a HCP)



2 or 3

(?)

Best if given at younger ages, but sexually active people who did not receive the vaccine when they were younger should ask their HCP.

Adults who want protection or have

Ask if you travel or want liver

All adults up to age 59; age 60+

if desired or at risk (kidney, liver,

For everyone, not just high risk

College students, military, certain

Ask if living in group settings like a

dorm, military housing, assisted living, group home, or nursing home

Only for special health problems (like

removed spleen, stem cell transplant)

Most adults do NOT need

or during outbreaks

For those with specific risk factors

health, or travel risks

1 or more

1 or 3

diabetes, certain jobs)

or lifestyle factors)

protection

2. 3. or 4

risks (travel, certain jobs, some health,



DATE(S) RECEIVED

NEXT DOSE DUE

Hepatitis B

DATE(S) RECEIVED

NEXT DOSE DUE

Meningococcal

DATE(S) RECEIVED

NEXT DOSE DUE

HIB

DATE(S) RECEIVED

NEXT DOSE DUE

Мрох

DATE(S) RECEIVED

NEXT DOSE DUE

Polio

DATE(S) RECEIVED

NEXT DOSE DUE

Only for adults who were not fully vaccinated as children or need it for travel or work

Most adults do NOT need



1 or more

?

Most adults in U.S. have had the full vaccination series, ask if you are unsure.

<sup>\*</sup> Ask your healthcare professional yearly if there have been changes to vaccine schedules.





#### Why Do I Need Vaccines EVERY YEAR?

- One of the things viruses love to do most is adapt and change to their surroundings – and they can do it fast! That's why the flu shot is needed every year.
- Some vaccines need boosters (an extra shot every so many years) to keep your protection strong.
- New vaccines come out to fight new illnesses (like COVID-19).

# TAKE-HOME MESSAGE Vaccines Keep Us Safe

Vaccines help protect you from getting very sick or having long-term problems from certain diseases.

You help protect your family and friends when you get your shots.

Shots are safe, carefully tested, and can save your life—and someone else's.

Even if you get sick, vaccines will help keep it mild and keep you out of the hospital.

Do your part: Check which vaccines you need, ask your health-care professional questions, and get vaccinated to stay healthy, strong, and ready for life's adventures!



- The Centers for Disease Control [CDC]. Recommended vaccinations for adults. CDC website. https://www.cdc.gov/vaccines/imz-schedules/adult-easyread.html#vpd Accessed July 26, 2025
- The Centers for Disease Control and Prevention [CDC]. Immunizations: Refugee Health Domestic Guidance. CDC Website. https://www.cdc.gov/long-covid/about/. Accessed August 1, 2025
- The National Institutes of Health [NIH] Disease prevention toolkit More resources. NIH Website. https://www.nih.gov/health-information/your-healthiest-self-wellness-toolkits/disease-prevention-toolkit/disease-prevention-toolkit-more-resources Accessed August 1, 2025.
- 4. The World Health Organization [WHO]. Global immunization efforts have saved at least 154 million lives over the past 50 years. WHO Website. https://www.who.int/news/item/24-04-2024-global-immunization-efforts-have-saved-at-least-154-million-lives-over-the-past-50-years. Accessed September. 24, 2025.
- Shattock AJ, Johnson HC, Sim SY, et al. Contribution of vaccination to improved survival and health: modelling 50 years of the Expanded Programme on Immunization. Lancet. 2024;403(10441):2307-2316.
- The American Lung Association. The Truth About How Vaccines Prevent Respiratory Diseases and Save Lives. The American Lung Association
  Website. https://www.lung.org/blog/vaccines-prevent-respiratory-illness. Accessed September 24, 2025
- 7. Pardi N, Krammer F. mRNA vaccines for infectious diseases advances, challenges and opportunities. Nat Rev Drug Discov. 2024;23(11):838-861.
- Kutikuppala LVS, Kourampi I, Kanagala RSD, Bhattacharjee P, Boppana SH. Prospects and Challenges in Developing mRNA Vaccines for Infectious Diseases and Oncogenic Viruses. Med Sci (Basel). 2024;12(2):28. Published 2024 May 22. Accessed September 24, 2025.