



# IMMUNITY

**Resistance to or protection against a specific disease; power to resist infection.**

Every day, bacteria, viruses and other germs attack our bodies. But we usually don't get sick. That's because we have *immunity*. Sometimes we need vaccines to help us get immunity. Children are vaccinated against polio, measles and other serious diseases. But did you know adults need vaccines too? Some recommended adult vaccines are "booster" shots of vaccines received during childhood. Other adult vaccines protect against diseases not typically seen in children.

This brochure provides information about adult vaccines. When you are up-to-date on your vaccinations, you protect yourself and avoid spreading disease to your family, friends and coworkers.

**BACTERIA AND VIRUSES:**  
Germs that infect your body and may cause disease.

**ANTIBODIES:**  
Produced by your immune system to fight off germs inside your body.

# VACCINES SAVE LIVES!

Vaccines have saved countless lives. Polio is very close to being completely eliminated. Illnesses like tetanus and diphtheria have declined dramatically in the U.S. because vaccines protect us from them. However, news reports about outbreaks of measles and whooping cough remind us how quickly diseases can spread when people are not properly vaccinated.

# HOW VACCINES WORK

When you are infected with a disease-causing germ, your immune system defends against it. In the process, you make antibodies against that specific germ. The antibodies fight off the germ. The next time you run into the germ, your antibodies recognize it and stop it quickly before it can make you sick. That's immunity.

Vaccines work by activating your immune system with a dead or harmless form of the germ. Your body responds by making antibodies that will kill the germ if you are exposed to it in the future.

## **VACCINE:**

A shot or nose spray that causes your body to make antibodies that protect against future disease.

# VACCINE PREVENTABLE DISEASES

We have vaccines to protect against many diseases that affect adults. Unfortunately, many adults are not fully vaccinated, leading to unnecessary suffering, serious health problems and even death.

## **Chickenpox (Varicella)**

### **What does it do?**

Causes a skin rash and can lead to serious problems, including bad skin infections, brain swelling and pneumonia. Adults who did not have chickenpox as children are at greater risk of having severe disease. Pregnant women who get chickenpox risk serious damage to their baby.

### **How is it spread?**

Through the air or by direct contact with skin sores.

## **Diphtheria**

### **What does it do?**

Causes a bad sore throat, swollen glands, fever and chills. If not treated, it can cause heart failure or paralysis.

### **How is it spread?**

By coughing or sneezing.

## **Hepatitis A**

### **What does it do?**

Causes yellow skin or eyes, tiredness, stomach ache, loss of appetite or nausea. Some people never get symptoms, but they can still pass it to others.

### **How is it spread?**

By eating or drinking food or water contaminated by feces. Also through exposure to feces, during close contact or sex.

## Hepatitis B

### What does it do?

Causes yellow skin or eyes, tiredness, stomach ache, loss of appetite or nausea. Can also cause liver cancer.

### How is it spread?

Through blood and other body fluids. From mother to child during birth (especially common in San Francisco's Asian communities). Also through close household contact such as sharing razors or toothbrushes, or through sexual contact, needle sharing or from unclean tattooing equipment.

## Flu (Influenza)

### What does it do?

Causes fever, headache, chills, cough, body aches and sore throat. The symptoms are more severe than the common cold.

### How is it spread?

By coughing or sneezing or through close contact with someone who has it.

## Human Papilloma Virus (HPV)

### What does it do?

Causes genital warts and can cause cervical cancer in women and other kinds of cancer in both women and men. Most people infected with HPV have no symptoms and don't realize they are infected.

### How is it spread?

By sexual contact.

## Measles

### What does it do?

Causes a rash and fever and can result in pneumonia, seizures, brain damage and death.

### How is it spread?

Through the air or through close contact with someone who has it.

## Meningitis (Meningococcal)

### What does it do?

Causes one type of meningitis which causes inflammation around the brain and spinal cord. Can rapidly lead to hearing loss, brain damage, amputations and death.

### How is it spread?

From contact with the saliva of someone who has it through kissing or sharing drinks, lipstick, cigarettes or toothbrushes.

## Mumps

### What does it do?

Causes swelling of the glands giving the cheeks a puffy appearance. Can lead to deafness, swelling of the brain, spinal cord, testicles, breasts or ovaries.

### How is it spread?

Through coughing or sneezing or through close contact with someone who has it.

## Pneumonia (Pneumococcal)

### What does it do?

Pneumococcal bacteria causes one type of pneumonia, blood infection and infection around the brain and spinal cord. Can result in brain damage, hearing and limb loss and death.

### How is it spread?

Through coughing or sneezing or through close contact with someone who has it.

## Rubella (German Measles)

### What does it do?

Causes flu-like symptoms followed by a rash. Adults who get rubella often feel sicker than children do. Pregnant women who get rubella risk serious damage to their baby.

### How is it spread?

Through coughing or sneezing or through close contact with someone who has it.

## Shingles (Zoster)

### What does it do?

Causes pain and a rash on one side of the body. After infection with chickenpox, as people get older, this virus may reappear as shingles.

### How is it spread?

People with a shingles rash can transmit chickenpox to someone who never had chickenpox or the chickenpox vaccine.

## Tetanus

### What does it do?

Causes muscle spasms that can lead to "locking" of the jaw so people can't open their mouth or swallow.

### How is it spread?

From a deep wound, like cutting yourself with a knife or stepping on a nail.

## Whooping Cough (Pertussis)

### What does it do?

Causes coughing spells that make it hard to breathe and can lead to cracked ribs and pneumonia. Adults typically have a milder form of pertussis, but can easily spread the infection to children. Serious results including death are most common in infants and young children.

### How is it spread?

Through coughing or sneezing or through close contact with someone who has it. Infants are at high risk of getting the disease if they come in contact with adults who have it.

# ADULT VACCINES

This chart shows which vaccines are recommended for adults. Take this to your healthcare provider and ask what vaccines you need. Remember, vaccines protect you and also keep you from spreading illness to others.

Vaccines for Adults	19–49 years old	50–64 years old	65 years old & older
<b>Chickenpox (Varicella)</b>	You need 2 doses of this vaccine if you've never had chickenpox.		
<b>Hepatitis A (Hep A)</b>	To be protected against Hep A you need 2 doses of this vaccine, at least 6 months apart. It is especially recommended for travelers outside the U.S.		
<b>Hepatitis B (Hep B)</b>	To be protected against Hep B, you need 3 doses of this vaccine, spread over a 6 month period.		
<b>Human Papilloma Virus (HPV)</b>	This vaccine is for people under age 27. It requires 3 doses.	Not recommended for this age group.	
<b>Influenza (Flu)</b>	You need a dose every fall or winter.		
<b>Measles, Mumps, Rubella</b>	You need 2 doses of this vaccine if you were born after 1956.	Not recommended for this age group.	
<b>Meningitis (Meningococcal)</b>	If you are a young adult going to college and plan to live in a dormitory, you need this vaccine. People with certain medical conditions need this vaccine regardless of age. <i>Some forms of meningitis are not vaccine preventable.</i>		
<b>Pneumonia (Pneumococcal)</b>	You need 1-2 doses if you smoke cigarettes or have certain medical conditions. <i>Some forms of pneumonia are not vaccine preventable.</i>		You need 1 dose at age 65 (or older) if you've never been vaccinated.
<b>Shingles (Zoster)</b>	Not recommended for this age group.		You need this vaccine if you are age 60 or older.
<b>Tetanus, Diphtheria Pertussis (Whooping Cough)</b>	Everyone needs this vaccine. It only became available in 2005, so if you have not had it since then, you should get it. You need a booster every 10 years. <b>If you are around pregnant women, infants or young children, be sure to get this vaccination.</b>		

**If you travel outside the United States, you may need more vaccines.**  
For information contact the Adult Immunization and Travel Clinic at (415) 554-2625.

# FIGHT THE FLU!

**You CANNOT get the flu from a flu shot.**

The flu shot is the only vaccine that people need to get **every year**. There are different flu viruses, so each year a new vaccine is made to protect against the latest flu germs. **It is important for everyone 6 months and older to get a flu shot this fall or winter.**

Each year, hundreds of thousands of people in the U.S. are hospitalized from the flu and about 36,000 people die from it. The flu is most serious in young children, pregnant women, people with chronic conditions like asthma, diabetes or heart and lung disease and people 50 years and older.

Vaccination is very important for health care workers and people who live with or care for high risk people because it protects caregivers from spreading the flu. Children younger than 6 months are at high risk, but are too young to be vaccinated. People who care for them should be vaccinated instead.

# WHERE TO GET VACCINATED

The best place to get vaccinated is at your doctor's office or clinic. If you do not have health insurance, you can visit the Adult Immunization and Travel Clinic (AITC) at the San Francisco Department of Public Health, at 101 Grove Street (next to City Hall). The AITC has all types of adult vaccines available for a charge. Call (415) 554-2625 for more information.

Community health centers in San Francisco provide vaccinations at reduced prices or on a sliding scale for their current patients. If you want to enroll as a new patient at one of these clinics, **call 311 or go to [www.healthysanfrancisco.org](http://www.healthysanfrancisco.org) for more information.**

Vaccines are also available throughout the city at pharmacies and grocery stores. These locations usually offer vaccines on a walk-in basis for a fee, although it's always best to call ahead. More information on vaccine sites is available at **[www.VaccinesForAdults.org](http://www.VaccinesForAdults.org)**.

