

## Hep A or Hepatitis A Vaccine

Hepatitis A is a viral infection that causes inflammation of the liver. It may cause symptoms of fever, fatigue, abdominal pain, vomiting, diarrhea, jaundice, clay-colored stools, dark urine, and joint pain. We routinely vaccinate against it at the 15 month and 2 year visit, but the vaccine may be given at anytime after the age of 1 year. There are 2 doses in the series that should be given at least 6 months apart.

### What is Hepatitis?

“Hepatitis” means inflammation of the liver. Toxins, certain drugs, some diseases, heavy alcohol use, and bacterial and viral infections can all cause hepatitis. Hepatitis is also the name of a family of viral infections that affect the liver; the most common types are Hepatitis A, Hepatitis B, and Hepatitis C.

What is the difference between Hepatitis A, Hepatitis B, and Hepatitis C? Hepatitis A, Hepatitis B, and Hepatitis C are diseases caused by three different viruses. Although each can cause similar symptoms, they have different modes of transmission and can affect the liver differently. Hepatitis A appears only as an acute or newly occurring infection and does not become chronic. People with Hepatitis A usually improve without treatment. Hepatitis B and Hepatitis C can also begin as acute infections, but in some people, the virus remains in the body, resulting in chronic disease and long term liver problems. There are vaccines to prevent Hepatitis A and B; however, there is not one for Hepatitis C. If a person has had one type of viral hepatitis in the past, it is still possible to get the other types.

### What is Hepatitis A?

Hepatitis A is a contagious liver disease that results from infection with the Hepatitis A virus. It can range in severity from a mild illness lasting a few weeks to a severe illness lasting several months. Hepatitis A is usually spread when a person ingests fecal matter — even in microscopic amounts — from contact with objects, food, or drinks contaminated by the feces, or stool, of an infected person.

### Statistics

How common is Hepatitis A in the United States?

In the United States, there were an estimated 25,000 new Hepatitis A virus infections in 2007. (However, the official number of reported Hepatitis A cases is much lower since many people who are infected never have symptoms and are never reported to public health officials.)

Is Hepatitis A decreasing in the United States?

Yes. Rates of Hepatitis A in the United States are the lowest they have been in 40 years. The Hepatitis A vaccine was introduced in 1995 and health professionals now routinely vaccinate all children, travelers to certain countries, and persons at risk for the disease. Many experts believe Hepatitis A vaccination has dramatically affected rates of the disease in the United States.

## **Transmission / Exposure**

### **How is Hepatitis A spread?**

Hepatitis A is usually spread when the Hepatitis A virus is taken in by mouth from contact with objects, food, or drinks contaminated by the feces (or stool) of an infected person. A person can get Hepatitis A through:

- Person to person contact
  - when an infected person does not wash his or her hands properly after going to the bathroom and touches other objects or food
  - when a parent or caregiver does not properly wash his or her hands after changing diapers or cleaning up the stool of an infected person
  - when someone engages in certain sexual activities, such as oral-anal contact with an infected person
- Contaminated food or water
  - Hepatitis A can be spread by eating or drinking food or water contaminated with the virus. This is more likely to occur in countries where Hepatitis A is common and in areas where there are poor sanitary conditions or poor personal hygiene. The food and drinks most likely to be contaminated are fruits, vegetables, shellfish, ice, and water. In the United States, chlorination of water kills Hepatitis A virus that enters the water supply.

### **Who is at risk for Hepatitis A?**

Although anyone can get Hepatitis A, in the United States, certain groups of people are at higher risk, such as those who:

- Travel to or live in countries where Hepatitis A is common
- Are men who have sexual contact with other men
- Use illegal drugs, whether injected or not
- Have clotting-factor disorders, such as hemophilia
- Live with someone who has Hepatitis A
- Have oral-anal sexual contact with someone who has Hepatitis A

I think I have been exposed to Hepatitis A. What should I do?

If you have any questions about potential exposure to Hepatitis A, call your health professional or your local or state health department.

If you were recently exposed to Hepatitis A virus and have not been vaccinated against Hepatitis A, you might benefit from an injection of either immune globulin or Hepatitis A vaccine. However, the vaccine or immune globulin must be given within the first 2 weeks after exposure to be effective. A health professional can decide what is best on the basis of your age and overall health.

What should I do if I ate at a restaurant that had an outbreak of Hepatitis A?

Talk to your health professional or a local health department official for guidance.

Outbreaks usually result from one of two sources of contamination: an infected food handler or an infected food source. Your health department will investigate the cause of the outbreak.

Keep in mind that most people do not get sick when someone at a restaurant has Hepatitis A. However, if an infected food handler is infectious and has poor hygiene, the risk goes up for patrons of that restaurant. In such cases, health officials might try to identify patrons and provide Hepatitis A vaccine or immune globulin if they can find them within 2 weeks of exposure.

On rare occasions, the source of the infection can be traced to contaminated food. Foods can become contaminated at any point along the process: growing, harvesting, processing, handling, and even after cooking. In these cases, health officials will try to determine the source of the contamination and the best ways to minimize health threats to the public.

What is postexposure prophylaxis or PEP?

PEP or postexposure prophylaxis refers to trying to prevent or treat a disease after someone is exposed to it.

Who should get PEP after being exposed to Hepatitis A?

A health professional can decide whether or not a person needs PEP after exposure to Hepatitis A. People who might benefit from PEP include those who:

- Live with someone who has Hepatitis A
- Have recently had sexual contact with someone who has Hepatitis A
- Have recently shared injection or non-injection illegal drugs with someone who has Hepatitis A
- Have had ongoing, close personal contact with a person with Hepatitis A, such as a regular babysitter or caregiver
- Have been exposed to food or water known to be contaminated with Hepatitis A virus

If I have had Hepatitis A in the past, can I get it again?

No. Once you recover from Hepatitis A, you develop antibodies that protect you from the virus for life. An antibody is a substance found in the blood that the body produces in response to a virus. Antibodies protect the body from disease by attaching to the virus and destroying it.

Can I donate blood if I have had Hepatitis A?

If you had Hepatitis A when you were 11 years of age or older, you cannot donate blood. If you had Hepatitis A before age 11, you may be able donate blood. Check with your blood donation center.

How long does Hepatitis A virus survive outside the body?

The Hepatitis A virus is extremely hearty. It is able to survive the body's highly acidic digestive tract and can live outside the body for months. High temperatures, such as boiling or cooking food or liquids for at least 1 minute at 185°F (85°C), kill the virus, although freezing temperatures do not.

## Symptoms

Does Hepatitis A cause symptoms?

Not always. Some people get Hepatitis A and have no symptoms of the disease. Adults are more likely to have symptoms than children.

What are the symptoms of Hepatitis A?

Some people with Hepatitis A do not have any symptoms. If you do have symptoms, they may include the following:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (a yellowing of the skin or eyes)

How soon after exposure to Hepatitis A will symptoms appear?

If symptoms occur, they usually appear anywhere from 2 to 6 weeks after exposure. Symptoms usually develop over a period of several days.

How long do Hepatitis A symptoms last?

Symptoms usually last less than 2 months, although some people can be ill for as long as 6 months.

Can a person spread Hepatitis A without having symptoms?

Yes. Many people, especially children, have no symptoms. In addition, a person can transmit the virus to others up to 2 weeks before symptoms appear.

How serious is Hepatitis A?

Almost all people who get Hepatitis A recover completely and do not have any lasting liver damage, although they may feel sick for months. Hepatitis A can sometimes cause liver failure and death, although this is rare and occurs more commonly in persons 50 years of age or older and persons with other liver diseases, such as Hepatitis B or C.

## Diagnosis / Treatment

How will I know if I have Hepatitis A?

A doctor can determine if you have Hepatitis A by discussing your symptoms and taking a blood sample.

How is Hepatitis A treated?

There are no special treatments for Hepatitis A. Most people with Hepatitis A will feel sick for a few months before they begin to feel better. A few people will need to be hospitalized. During this time, doctors usually recommend rest, adequate nutrition, and fluids. People with Hepatitis A should check with a health professional before taking any prescription pills, supplements, or over-the-counter medications, which can potentially damage the liver. Alcohol should be avoided.

## Prevention / Vaccination

Can Hepatitis A be prevented?

Yes. The best way to prevent Hepatitis A is through vaccination with the Hepatitis A vaccine. Vaccination is recommended for all children, for travelers to certain countries, and for people at high risk for infection with the virus. Frequent handwashing with soap and warm water after using the bathroom, changing a diaper, or before preparing food can help prevent the spread of Hepatitis A.

What is the Hepatitis A vaccine?

The Hepatitis A vaccine is a shot of inactive Hepatitis A virus that stimulates the body's natural immune system. After the vaccine is given, the body makes antibodies that protect a person against the virus. An antibody is a substance found in the blood that is produced in response to a virus invading the body. These antibodies are then stored in the body and will fight off the infection if a person is exposed to the virus in the future.

Who should get vaccinated against Hepatitis A?

Hepatitis A vaccination is recommended for:

- All children at age 1 year
- Travelers to countries that have high rates of Hepatitis A
- Men who have sexual contact with other men
- Users of injection and non-injection illegal drugs
- People with chronic (lifelong) liver diseases, such as Hepatitis B or Hepatitis C
- People who are treated with clotting-factor concentrates

- People who work with Hepatitis A infected animals or in a Hepatitis A research laboratory

How is the Hepatitis A vaccine given?

The Hepatitis A vaccine is given as 2 shots, 6 months apart. The Hepatitis A vaccine also comes in a combination form, containing both Hepatitis A and B vaccine, that can be given to persons 18 years of age and older. This form is given as 3 shots, over a period of 6 months.

Is the Hepatitis A vaccine effective?

Yes, the Hepatitis A vaccine is highly effective in preventing Hepatitis A virus infection. Protection begins approximately 2 to 4 weeks after the first injection. A second injection results in long-term protection.

Is the Hepatitis A vaccine safe?

Yes, the Hepatitis A vaccine is safe. No serious side effects have resulted from the Hepatitis A vaccine. Soreness at the injection site is the most common side effect reported. As with any medicine, there are very small risks that a serious problem could occur after someone gets the vaccine. However, the potential risks associated with Hepatitis A are much greater than the potential risks associated with the Hepatitis A vaccine. Before the Hepatitis A vaccine became available in the United States, more than 250,000 people were infected with Hepatitis A virus each year. Since the licensure of the first Hepatitis A vaccine in 1995, millions of doses of Hepatitis A vaccine have been given in the United States and worldwide.

Who should not receive the Hepatitis A vaccine?

People who have ever had a serious allergic reaction to the Hepatitis A vaccine or who are known to be allergic to any part of the Hepatitis A vaccine should not receive the vaccine. Tell your doctor if you have any severe allergies. Also, the vaccine is not licensed for use in infants under age 1 year.

Who should get the Hepatitis A vaccine before traveling?

Anyone traveling to or working in countries with high rates of Hepatitis A should talk to a health professional about getting vaccinated. He or she is likely to recommend vaccination or a shot of immune globulin before traveling to countries in Central or South America, Mexico, and certain parts of Asia, Africa, and Eastern Europe. CDC's Travelers' Health site provides detailed information about Hepatitis A and other recommended vaccines at [wwwn.cdc.gov/travel/yellowBookCH4-HepA.aspx](http://wwwn.cdc.gov/travel/yellowBookCH4-HepA.aspx).

What is immune globulin?

Immune globulin is a substance made from human blood plasma that contains antibodies that protect against infection. It is given as a shot and provides short-term protection (approximately 3 months) against Hepatitis A. Immune globulin can be given either before exposure to the Hepatitis A virus (such as before travel to a country where Hepatitis A is common) or to prevent infection after exposure to the Hepatitis A virus. Immune globulin must be given within 2 weeks after exposure for the best protection.

Why is the Hepatitis A vaccine recommended before traveling?

Traveling to places where Hepatitis A virus is common puts a person at high risk for Hepatitis A. The risk exists even for travelers to urban areas, those who stay in luxury hotels, and those who report that they have good hygiene and are careful about what they eat and drink. Travelers can minimize their risk by avoiding potentially contaminated water or food, such as drinking beverages (with or without ice) of unknown purity, eating uncooked shellfish, and eating uncooked fruits or vegetables that are not peeled or prepared by the traveler personally. Risk for infection increases with duration of travel and is highest for those who live in or visit rural areas, trek in back-country areas, or frequently eat or drink in settings with poor sanitation. Since a simple, safe vaccine exists, experts recommend that travelers to certain countries be vaccinated.

How soon before travel should the Hepatitis A vaccine be given?

The first dose of Hepatitis A vaccine should be given as soon as travel is planned. Two weeks or more before departure is ideal, but anytime before travel will provide some protection.

I'm leaving for my trip in a few days. Can I still get the Hepatitis A vaccine?

Experts now say that the first dose of Hepatitis A vaccine can be given at any time before departure. This will provide some protection for most healthy persons.

Will the Hepatitis A vaccine protect someone from other forms of hepatitis?

Hepatitis A vaccine will only protect someone from Hepatitis A. A separate vaccine is available for Hepatitis B. There is also a combination vaccine that protects a person from Hepatitis A and Hepatitis B. No vaccine is available for Hepatitis C at this time.

Can Hepatitis A vaccine be given to immunocompromised persons, such as hemodialysis patients or persons with AIDS?

Yes. Because Hepatitis A vaccine is inactivated (not "live"), it can be given to people with compromised immune systems.

Is it harmful to have an extra dose of Hepatitis A vaccine or to repeat the entire Hepatitis A vaccine series?

No, getting extra doses of Hepatitis A vaccine is not harmful.

What should be done if the last dose of Hepatitis A vaccine is delayed?

The second or last dose should be given by a health professional as soon as possible. The first dose does not need to be given again.

Where can I get the Hepatitis A vaccine?

Speak with your health professional or call your local public health department, may offer free or low-cost vaccines for adults. For children, check out <http://www.cdc.gov/vaccines/programs/vfc/parents/default.htm>.

<http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-hep-a.pdf>