

General Information on Hepatitis A (viral hepatitis)

What is hepatitis A?

Hepatitis A is a liver disease caused by hepatitis A virus.

How is hepatitis A virus transmitted?

Hepatitis A virus is spread from person to person by putting something in the mouth that has been contaminated with the stool of a person with hepatitis A. This type of transmission is called "fecal-oral." For this reason, the virus is more easily spread in areas where there are poor sanitary conditions or where good personal hygiene is not observed.

Most infections result from contact with a household member or sex partner who has hepatitis A. Casual contact, as in the usual office, factory, or school setting, does not spread the virus.

What are the signs and symptoms of hepatitis A?

Persons with hepatitis A virus infection may not have any signs or symptoms of the disease. Older persons are more likely to have symptoms than children. If symptoms are present, they usually occur abruptly and may include fever, tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, and jaundice (yellowing of the skin and eyes). Symptoms usually last less than 2 months; a few persons are ill for as long as 6 months. The average incubation period for hepatitis A is 28 days (range: 15–50 days).

If you've had hepatitis A in the past, can you get it again?

No. Once you recover from hepatitis A you develop antibodies that provide life-long protection from future infections. After recovering from hepatitis A, you will never get it again and you cannot transmit the virus to others.

How do you know if you have hepatitis A?

A blood test (IgM anti-HAV) is needed to diagnose hepatitis A. Talk to your doctor or someone from your local health department if you suspect that you have been exposed to hepatitis A or any type of viral hepatitis.

How can you prevent hepatitis A?

Always wash your hands after using the bathroom, changing a diaper, or before preparing or eating food.

Two products are used to prevent hepatitis A virus infection: immune globulin and hepatitis A vaccine.

1. Immune globulin is a preparation of antibodies that can be given before exposure for short-term protection against hepatitis A and for persons who have already been exposed to hepatitis A virus. Immune globulin must be given within 2 weeks after exposure to hepatitis A virus for maximum protection.
2. Hepatitis A vaccine has been licensed in the United States for use in persons 12 months of age and older. The vaccine is recommended (before exposure to hepatitis A virus) for persons who are more likely to get hepatitis A virus infection or are more likely to get seriously ill if they do get hepatitis A. The vaccines currently licensed in the United States are HAVRIX® (manufactured by GlaxoSmithKline) and VAQTA® (manufactured by Merck & Co., Inc).

How do you kill hepatitis A virus (HAV)?

HAV can live outside the body for months, depending on the environmental conditions. HAV is killed by heating to 185 degrees F. (85 degrees C.) for one minute. However, HAV can still be spread from cooked food if it gets contaminated after cooking. Adequate chlorination of water, as recommended in the US, kills HAV that may get into the water supply.

For information on disinfectants and sterilants used to kill viruses like HAV on hard surfaces (e.g., counter tops, tables, floors) see: <http://www.cdc.gov/ncidod/hip/Sterile/sterile.htm>.

Can I donate blood if I have had any type of viral hepatitis?

If you had any type of viral hepatitis since aged 11 years, you are not eligible to donate blood. In addition, if you ever tested positive for hepatitis B or hepatitis C, at any age, you are not eligible to donate, even if you were never sick or jaundiced from the infection.

Can I get viral hepatitis from an animal?

No. Hepatitis viruses are not zoonotic meaning that they cannot be transmitted between, or be shared by, animals and humans. No natural animal or insect hosts or vectors are known to exist. While humans are the only natural hosts, some non-human primates can be experimentally infected for research purposes.

HEPATITIS A VACCINE AND IMMUNE GLOBULIN

Hepatitis A Vaccine

Can a patient receive the first dose of hepatitis A vaccine from one manufacturer and the second (last) dose from another manufacturer?

Yes. Although studies have not been done to look at this issue, there is no reason to believe that this would be a problem.

What should be done if the second (last) dose of hepatitis A vaccine is delayed?

The second dose should be administered as soon as possible. There is no need to repeat the first dose.

Can other vaccines be given at the same time that hepatitis A vaccine is given?

Yes. Hepatitis B, diphtheria, poliovirus (oral and inactivated), tetanus, oral typhoid, cholera, Japanese encephalitis, rabies, yellow fever vaccine or immune globulin can be given at the same time that hepatitis A vaccine is given, but at a different injection site.

Is hepatitis A vaccine safe?

Yes, hepatitis A vaccine has an excellent safety profile. No serious adverse events have been attributed definitively to hepatitis A vaccine. Soreness at the injection site is the most frequently reported side effect.

Any adverse event suspected to be associated with hepatitis A vaccination should be reported to the [Vaccine Adverse Events Reporting System \(VAERS\)](#). VAERS forms can be obtained by calling 1-800-822-7967.

How are hepatitis A vaccines made?

There is no live virus in hepatitis A vaccines. The virus is inactivated during production of the vaccines, similar to Salk-type inactivated polio vaccine.

How long does hepatitis A vaccine protect you?

A recent review by an expert panel concluded that estimates of antibody persistence derived from kinetic models of antibody decline indicate that protective levels of anti-HAV could be present for at least 25 years in adults and at least 14-20 years in children.

When are persons protected after receiving hepatitis A vaccine?

Protection against hepatitis A begins four weeks after the first dose of hepatitis A vaccine.

*Can hepatitis A vaccine be given **after** exposure to hepatitis A virus?*

No, hepatitis A vaccine is not licensed for use after exposure to hepatitis A virus. In this situation, immune globulin should be used.

Is it harmful to have an extra dose(s) of hepatitis A or hepatitis B vaccine or to repeat the entire hepatitis A or hepatitis B vaccine series if you have forgotten whether or not you had the vaccine or do not have written documentation that was requested?

No. If necessary, getting extra doses of hepatitis A or hepatitis B vaccine is not harmful.

Should pre-vaccination testing be done?

Pre-vaccination testing is done only in specific instances to control cost (e.g., persons who were likely to have had hepatitis A in the past). This includes persons who were born in countries with high levels of hepatitis A virus infection, elderly persons, and persons who have clotting factor disorders and may have received factor concentrates in the past.

Should post-vaccination testing be done?

No.

Can hepatitis A vaccine be given during pregnancy or lactation?

We don't know for sure, but because vaccine is produced from inactivated hepatitis A virus, the theoretical risk to the developing fetus is expected to be low. The risk associated with vaccination, however, should be weighed against the risk for hepatitis A in women who may be at high risk for exposure to hepatitis A virus.

Can hepatitis A vaccine be given to immunocompromised persons? (e.g., persons on hemodialysis or persons with AIDS)

Yes.

Immune Globulin

What is immune globulin?

Immune globulin is a preparation of antibodies that can be given before exposure for short-term protection against hepatitis A and for persons who have already been exposed to hepatitis A virus. Immune globulin must be given within 2 weeks after exposure to hepatitis A virus for maximum protection.

Is immune globulin safe?

Yes. No instance of transmission of HIV (the virus that causes AIDS) or other viruses has been observed with the use of immune globulin administered by the intramuscular route. Immune globulin can be administered during pregnancy and breast-feeding.

WHO SHOULD GET VACCINATED AGAINST HEPATITIS A?

Hepatitis A vaccination provides protection before one is exposed to hepatitis A virus. Hepatitis A vaccination is recommended for the following groups who are at increased risk for infection and for any person wishing to obtain immunity.

Persons traveling to or working in countries that have high or intermediate rates of hepatitis A. All susceptible persons traveling to or working in countries that have [high or intermediate rates of hepatitis A](#) should be vaccinated or receive immune globulin before traveling. Persons from developed countries who travel to developing countries are at high risk for hepatitis A. Such persons include tourists, military personnel, missionaries, and others who work or study abroad in countries that have high or intermediate levels of hepatitis A. The risk for hepatitis A exists even for travelers to urban areas, those who stay in luxury hotels, and those who report that they have good hygiene and that they are careful about what they drink and eat.

Children in states, counties, and communities where rates of hepatitis A were/are at least twice the national average during the baseline period of 1987-1997. Children living in states, counties, and communities where rates of hepatitis A are at least twice the national average (≥ 20 cases/1000,000) in baseline period should be routinely vaccinated beginning at 12 months of age. High rates of hepatitis A have been found in these populations, both in urban and rural settings. In addition, to effectively prevent epidemics of hepatitis A, vaccination of previously unvaccinated older children is recommended within 5 years of initiation of routine childhood vaccination programs. Although rates differ among areas, available data indicate that a reasonable cutoff age in many areas is 10-15 years of age because older persons have often already had hepatitis A. Vaccination of children before they enter school should receive highest priority, followed by vaccination of older children who have not been vaccinated.

Men who have sex with men

Sexually active men (both adolescents and adults) who have sex with men should be vaccinated.

Hepatitis A outbreaks among men who have sex with men have been reported frequently. Recent outbreaks have occurred in urban areas in the United States, Canada, and Australia.

Illegal-drug users

Vaccination is recommended for injecting and non-injecting illegal-drug users.

Persons who have occupational risk for infection

Persons who work with hepatitis A virus-infected primates or with hepatitis A virus in a research laboratory setting should be vaccinated. No other groups have been shown to be at increased risk for hepatitis A virus infection because of occupational exposure.

Outbreaks of hepatitis A have been reported among persons working with non-human primates that are susceptible to hepatitis A virus infection, including several Old World and New World species. Primates that were infected were those that had been born in the wild, not those that had been born and raised in captivity.

Persons who have chronic liver disease

Persons with chronic liver disease who have never had hepatitis A should be vaccinated, as there is a higher rate of fulminant (rapid onset of liver failure, often leading to death) hepatitis A among persons with chronic liver disease. Persons who are either awaiting or have received liver transplants also should be vaccinated.

Persons who have clotting-factor disorders

Persons who have never had hepatitis A and who are administered clotting-factor concentrates, especially solvent detergent-treated preparations, should be given hepatitis A vaccine.

All persons with hemophilia (Factor VIII, Factor IX) who receive replacement therapy should be vaccinated because there appears to be an increased risk of transmission from clotting-factor concentrates that are not heat inactivated.

WHICH GROUPS DO NOT ROUTINELY NEED HEPATITIS A VACCINE?

Food service workers

Foodborne hepatitis A outbreaks are relatively uncommon in the United States; however, when they occur, intensive public health efforts are required for their control.

Although persons who work as food handlers have a critical role in common-source foodborne outbreaks, they are not at increased risk for hepatitis A because of their occupation.

Consideration may be given to vaccination of employees who work in areas where community-wide outbreaks are occurring and where state and local health authorities or private employers determine that such vaccination is cost-effective.

Sewerage workers

In the United States, no work-related outbreaks of hepatitis A have been reported among workers exposed to sewage.

Health-care workers

Health-care workers are not at increased risk for hepatitis A. If a patient with hepatitis A is admitted to the hospital, routine infection control precautions will prevent transmission to hospital staff.

Children under 12 months of age

Because of the limited experience with hepatitis A vaccination among children under 12 months of age, the vaccine is not currently licensed for children below this age group.

Day-care attendees

The frequency of outbreaks of hepatitis A is not high enough in this setting to warrant routine hepatitis A vaccination. In some communities, however, day-care centers play a role in sustaining community-wide outbreaks. In this situation, consideration should be given to adding hepatitis A vaccine to the prevention plan for children and staff in the involved center(s).

Residents of institutions for developmentally disabled persons

Historically, hepatitis A virus infections were common among persons with developmental disabilities living in institutions. Currently, the occurrence of hepatitis A virus infections have diminished.