

Hepatitis A: Questions and Answers

INFORMATION ABOUT THE DISEASE AND VACCINES

What causes hepatitis A?

Hepatitis A is an infectious liver disease caused by hepatitis A virus (HAV).

How does hepatitis A virus spread?

Hepatitis A virus is spread from person to person by putting something in the mouth that has been contaminated with the stool (feces, poop) of a person infected with hepatitis A virus. This type of spread is called “fecal-oral.” This can happen in a variety of ways, such as when an infected person who prepares or handles food doesn’t wash his or her hands adequately after using the toilet and then touches other people’s food. A person can also be infected by drinking water contaminated with hepatitis A virus or drinking beverages chilled with virus contaminated ice. Contaminated food, water, and ice can be significant sources of infection for travelers to many areas of the world. 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 hepatitis A viral infections in the United States result from international travel to countries with intermediate or high rates of hepatitis A virus infection (see question on how common is hepatitis A virus infection throughout the world), contact with a household member or sex partner who has hepatitis A, or sharing illegal drugs. Casual contact, as in the office, factory, or school setting, does not spread the virus.

Can hepatitis A virus be spread through sex?

Yes. Sex involves close, intimate contact (vaginal, anal, or oral sex) and increases the risk of exposure to hepatitis A virus in the feces of an infected person.

What are the symptoms of hepatitis A?

Not everyone infected with hepatitis A virus will have symptoms; however, some infected people can feel quite sick. If symptoms are present, they usually

occur suddenly and can include fever, tiredness, loss of appetite, nausea, abdominal discomfort, vomiting, joint pain, clay-colored stools, dark urine, and jaundice (yellowing of the skin and eyes).

How long does it take to show signs of illness after coming in close contact with a person who has hepatitis A virus infection?

It can take 15–50 days to develop symptoms (average 28 days). People with hepatitis A virus infection might not have any signs or symptoms of the infection. Adults are more likely to have symptoms than children. About 7 out of 10 adults have symptoms, while children less than age 6 years usually have no symptoms. In some people, symptoms of hepatitis A recur in 6–9 months; this condition is called relapsing hepatitis A.

How long do symptoms last?

Symptoms usually last less than 2 months; however, a few people are ill for as long as 6 months.

How serious is hepatitis A?

Hepatitis A can be quite serious. Among reported cases of hepatitis A (CDC, 2016) 42% required hospitalization. Many days of work are missed due to hepatitis A, as well. Older people and people with chronic liver disease, such as those infected with hepatitis C virus, are more likely to be seriously ill and die from hepatitis A.

Can people become chronically (life-long) infected with hepatitis A virus?

No. Hepatitis A only causes acute (recently acquired) infection, not chronic infection. Relapsing hepatitis A, as described above, goes away and is NOT a chronic infection. Both hepatitis B and hepatitis C viruses can cause chronic infection.

How common is hepatitis A in the United States?

In 2016, there were 2,007 acute cases of hepatitis

A reported to the Centers for Disease Control and Prevention (CDC) and an estimated 4,000 new infections. About 40% of reported infections were acquired outside the United States by adult travelers. The occurrence of hepatitis A virus infection has been steadily decreasing over the past several years. The 1,239 cases reported in 2014 was the lowest number ever reported. Reported cases increased in 2017 and 2018 because of several large outbreaks, mainly among homeless people.

How common is hepatitis A virus infection throughout the world?

Hepatitis A occurs throughout the world. It is especially common in countries in Latin America, Africa, the Middle East, Asia, the Caribbean, and the Western Pacific. This means that people can become infected with the virus in many travel destinations, even when using luxury tourist accommodations. The only destinations around the world for which CDC does not recommend hepatitis A vaccination or immune globulin (IG) for U.S. travelers before departure are Canada, Australia, New Zealand, Japan, and parts of Western Europe.

How does a person know if he or she is infected with hepatitis A virus?

To diagnose acute hepatitis A, a blood test called “IgM class antibody to hepatitis A virus” (IgM anti-HAV) is needed. There is also a blood test available that shows if a person was infected with hepatitis A virus in the past (total hepatitis A antibody, also called anti-HAV). Talk to your doctor or your local health department if you suspect that you have been exposed to the virus or any other type of hepatitis virus.

Is there a treatment for hepatitis A?

No. There is no specific treatment for hepatitis A. Supportive care includes bed rest, fluids, and fever-reducing medicines. Take fever-reducing medicine only if your physician recommends it.

How long can a person with hepatitis A virus infection spread the virus?

The most likely time for an infected person to

spread hepatitis A virus to others is during the two weeks before the infected person develops symptoms (e.g., yellowing of skin and eyes). The risk of spreading hepatitis A virus becomes lower over time and can still be present one week or longer after symptoms develop. Infants are more likely to spread hepatitis A virus for longer periods of time.

If an unvaccinated person has had close personal contact with a person who is infected with hepatitis A virus, what should the person do?

If an unvaccinated person thinks that he or she might have been exposed to hepatitis A virus, the person should call their healthcare provider immediately to determine whether a real exposure has occurred and whether hepatitis A vaccine and/or IG should be administered. IG is a concentrated dose of human antibodies that includes anti-HAV. In most cases, either of these preparations can protect an exposed person from developing hepatitis A virus infection. It's important to give IG within two weeks following an exposure. Hepatitis A vaccine should be given as soon as possible after an exposure (the sooner to the exposure the better). (See the questions below for more information about IG and hepatitis A vaccine and in which situations vaccine and/or IG is the best choice).

Can a person be infected with hepatitis A virus more than once?

No. Once a person recovers from the infection, he or she develops life-long protection from future infection.

How does hepatitis A virus differ from hepatitis B virus (HBV) and hepatitis C virus (HCV)?

- Hepatitis A, B, and C are three different viruses that injure the liver and cause similar symptoms in people with acute (recently acquired) disease.
- Hepatitis A virus is spread by getting infected fecal matter into a person's mouth who has never had hepatitis A virus infection (e.g., an infected person who doesn't wash his or her hands after using the bathroom and then handles food for public consumption or an infected person who has sex with a person who has never had hepatitis A). Hepati-

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- tis B and hepatitis C viruses are spread when an infected person's blood or blood-contaminated body fluids enter another person's bloodstream.
- Hepatitis B and hepatitis C virus infections can cause chronic liver problems. Infection with hepatitis A virus does not.
 - There are vaccines that will protect people from infection with hepatitis A and hepatitis B. Currently, there is no vaccine to protect people from hepatitis C virus infection.
 - There are medications that are approved by the Food and Drug Administration (FDA) for treatment of chronic hepatitis B and chronic hepatitis C viral infections. There is no specific treatment for hepatitis A virus infection. (See the question "Is there treatment for hepatitis A?")
 - If a person has had one type of viral hepatitis in the past, it is still possible to get the other types.

What kind of vaccine is hepatitis A vaccine?

Hepatitis A vaccine is an inactivated (killed) virus vaccine.

How is hepatitis A vaccine administered?

The vaccine is given by an injection into the muscle of the upper arm for adults and older children and in the thigh muscle of toddlers and younger children.

Who should get this vaccine?

Many people are recommended to receive hepatitis A vaccine, including people at increased risk for exposure to hepatitis A virus infection and people who are more likely to get seriously ill if infected with the virus. According to CDC recommendations, people who should be vaccinated include:

- All children starting at age 1 year (12–23 months)
- People age 6 months or older who are traveling to or working in an area of the world except the United States, Canada, Japan, New Zealand, Australia, and parts of Western Europe. Vaccine given to a child age 6–11 months does not count toward the 2-dose series given after the first birthday.
- Men who have sex with men

- Users of illicit drugs, injectable or noninjectable
- Homeless people
- People who anticipate having close personal contact with an international adoptee from a country of high or intermediate levels of hepatitis A virus infection during the first 60 days following the adoptee's arrival in the United States
- People who have blood clotting disorders
- People who work with HAV-infected primates or with hepatitis A virus in a research laboratory setting (no other groups have been shown to be at increased risk for HAV infection because of occupational exposure)
- People with chronic liver disease, including Hepatitis A virus- and Hepatitis C virus-infected people
- Any person who wishes to be protected from hepatitis A virus infection

Hepatitis A vaccine is not routinely recommended for healthcare personnel, sewage workers, or day-care providers. Children who are not vaccinated by age two years should be vaccinated as soon as possible.

ACIP now recommends routine hepatitis A vaccination for homeless people. Can you provide a definition of "homeless"?

CDC defines a homeless person as an individual who lacks housing (without regard to whether the individual is a member of a family), including an individual whose primary residence during the night is a supervised public or private facility (e.g. shelters) that provides temporary living accommodations, and an individual who is a resident in transitional housing. An individual without permanent housing may live on the street, stay in a shelter, mission, single room occupancy facilities, abandoned building or vehicle, or in any other unstable or non-permanent situation.

How many doses of hepatitis A vaccine are recommended?

Two doses are recommended. The second dose is given no sooner than six months after the first dose.

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I'm not in a group for which hepatitis A vaccine is recommended. Can I still get vaccinated to protect myself against infection?

Yes. Hepatitis A vaccine is safe and effective. Any person who wishes to be immune to infection with hepatitis A virus can receive the vaccine.

How long does hepatitis A vaccine protect you?

Estimates for long-term protection for fully vaccinated people (i.e., full two-dose series) suggest that protection from hepatitis A virus infection could last for at least 25 years in adults and at least 14–20 years in children. Experts continue to study the long-term effectiveness of this vaccine to determine whether a booster dose will be needed.

What organizations recommend hepatitis A vaccine?

The Centers for Disease Control and Prevention, the American Academy of Pediatrics, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the American College of Physicians, recommend this vaccine.

Is hepatitis A vaccine safe?

Yes, hepatitis A vaccine is very safe. Since the licensure of the first hepatitis A vaccine in 1995, millions of doses of hepatitis A vaccine have been administered worldwide, as well as in the United States. No serious adverse events have been attributed to the vaccine.

What side effects have been reported with this vaccine?

The most common side effect is a sore arm, which happens to one out of two adults and one out of five children. Less common side effects include headache, loss of appetite, low-grade fever, or tiredness. When these problems happen, they usually start 3–5 days after vaccination and usually last for one or two days. A very rare but serious side effect is a severe allergic reaction. If this happens, it typically occurs within a few minutes to a few hours following the injection. (See the question on “Who should not receive hepatitis A vaccine?”)

Who should not receive hepatitis A vaccine?

People who have had a serious allergic reaction to

hepatitis A vaccine in the past, or who are known to be allergic to any part of the hepatitis A vaccine, should not receive it. People with moderate or severe acute illness should wait to receive hepatitis A vaccine until their condition has improved.

How effective is hepatitis A vaccine?

Hepatitis A vaccine is very effective. It appears that all adults, adolescents, and children become immune to hepatitis A virus infection after getting two doses. After one dose, at least 94 out of 100 people become immune for the short term. It is very important to get the full two-dose series to have long-term protection.

Can I receive hepatitis A vaccine when I am pregnant?

Hepatitis A vaccine has not been shown to pose a danger to a pregnant woman or to a developing fetus. A pregnant woman may be vaccinated.

Can the vaccine cause hepatitis A virus infection?

No.

Is there a vaccine that protects against both hepatitis A and hepatitis B virus infection?

Yes. Twinrix is a hepatitis A and hepatitis B combination vaccine manufactured by GlaxoSmithKline. It was licensed for use in the United States in 2001 for people 18 years of age and older. Three doses of Twinrix are necessary for full protection against hepatitis A and hepatitis B virus infections.

What is immune globulin (IG)?

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

What are the recommendations for the use of hepatitis A vaccine and/or IG prior to travel?

All susceptible people (individuals who have never had the infection or the vaccine) traveling to or working in countries except the United States, Canada, Japan, New Zealand, Australia, and parts of

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Western Europe should receive hepatitis A vaccine or IG before departure. If traveling to the Caribbean, people should consider getting hepatitis A vaccine or IG if travel is to areas of questionable sanitation.

Infants age 6 through 11 months should receive 1 dose of hepatitis A vaccine prior to travel. Hepatitis A vaccine given before the first birthday does not count toward the routine 2-dose series.

For unvaccinated people ages 1 through 40 years, the first dose of hepatitis A vaccine should be given as soon as travel is considered. The second dose should be given at least 6 months after the first dose.

For the best protection, individuals who are older than age 40, immunocompromised people (e.g., people with HIV infection or on chemotherapy), and people with chronic liver disease or other chronic medical conditions planning to travel in 2 weeks or less should receive the initial dose of hepatitis A vaccine and IG at the same time. The second dose

of the 2-dose hepatitis A vaccine series should be given no sooner than six months after the first dose. This second dose is needed to ensure long-lasting protection.

Travelers who choose not to get the hepatitis A vaccine, who are younger than age 6 months, or who are allergic to the vaccine should be given IG only. The dosage of IG depends on the length of travel.

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

Yes. People who recently have been exposed to hepatitis A and who previously have not had hepatitis A vaccine should be given a single dose of hepatitis A vaccine as soon as possible. For people older than age 40 years, IG may also be administered at the clinician's discretion, but hepatitis A vaccine can be used if IG is unavailable. IG alone should be given to children younger than 12 months of age and people for whom vaccine is contraindicated. Both vaccine and IG should be given to immunocompromised people and to people who have chronic liver disease.