

What is hepatitis A?

Hepatitis A is a contagious liver disease caused by hepatitis A virus (HAV).

What are the signs and symptoms of hepatitis A?

Persons with hepatitis A virus infection might 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 can include fever, tiredness, loss of appetite, nausea, vomiting, abdominal discomfort, dark urine, clay-colored bowel movements, joint pain, 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. Symptoms of hepatitis A usually occur 2-7 weeks after exposure to the virus.

How soon do symptoms occur?

Symptoms usually occur 15-50 days after exposure.

Can persons become re-infected with HAV after recovering from hepatitis A?

No. IgG antibodies to HAV, which appear early in the course of infection, provide lifelong protection against the disease.

How is hepatitis A diagnosed?

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 is hepatitis A virus transmitted?

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.

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 healthcare provider 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 healthcare provider 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 products are available to prevent hepatitis A virus infection?

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

- 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.
- Hepatitis A vaccine has been licensed in the United States for use in persons 12 months of age and older. 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 infection with 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.

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 any time 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; they may offer free or low-cost vaccines for adults. For children, check out the Vaccines for Children Program at www.cdc.gov/vaccines/programs/vfc/parents/qa-detailed.html.

For more information, please visit these websites:

- CDC Hepatitis A: www.cdc.gov/hepatitis/hav
- CDC Hepatitis A Vaccination: www.cdc.gov/vaccines/vpd/hepa
- CDC ACIP Hepatitis A Vaccine Recommendations: www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hepa.html

SAMPLE LETTER TO COMMUNITY HEALTHCARE PROVIDERS

Dear Doctor:

Over the past (weeks, months), _____ (City/County) has experienced a substantial increase in the number of reported cases of hepatitis A. The _____ (City/County) Health Department is concerned about the potential for a widespread outbreak unless control measures are undertaken immediately. The cooperation of the entire medical community is essential.

The key factors in controlling the spread of hepatitis A virus (HAV) are rapid diagnosis of cases and timely identification and prophylaxis of contacts.

Hepatitis A is confirmed serologically by detection of acute-phase (IgM) antibody against hepatitis A antigen (anti-HAV IgM). IgM antibody appears in the serum of infected persons in high titers for a short time and is followed by the appearance in serum of antibody of the IgG class. Anti-HAV IgG persists for life, conferring immunity to reinfection.

The total antibodies test (anti-HAV) does not differentiate between IgM and IgG antibodies. A positive result does not distinguish a current infection from a past illness. In order to confirm the diagnosis of acute hepatitis A, the anti-HAV IgM must be positive. Some laboratories refer to IgG antibody as "convalescent" antibody, a term which may be confusing. While IgG antibody can become detectable in serum while IgM antibody is still present, the presence of IgG antibody in the absence of IgM antibody does not mean the patient is convalescing or "recovering" from a recent hepatitis A infection. Rather, the presence of IgG antibody alone indicates the patient had hepatitis A months or years in the past or has been vaccinated. This is especially relevant in the patient over age fifty, as many older adults have pre-existing antibodies to hepatitis A. During an outbreak, a clinically compatible illness after contact with a confirmed case may suffice for diagnosis. There is no carrier state associated with hepatitis A.

Contacts who recently have been exposed to HAV and who previously have not received hepatitis A vaccine should receive post-exposure prophylaxis with a single dose of single-antigen hepatitis A vaccine or immune globulin (IG) (0.02 mL/kg) as soon as possible.

Hepatitis A is spread only through fecal-oral transmission and requires close personal contact. Occasional transmission occurs through contaminated food.

Candidates for prophylaxis are basically household contacts and classmates and teachers in child care settings. The _____ (City/County) Health Department may expand the usual recommendations and prophylax more remote contacts following individual case investigations. Immune globulin is not indicated for cases; it is prophylaxis, not treatment.

Due to the time involved, the cost of antibody tests and the relative safety of IG, serologic screening for anti-HAV in contacts is NOT recommended. Hepatitis A is a Class B reportable disease under Ohio law. Both confirmed and suspect cases must be reported to the local health department by the end of the next business day after identification of a case.

Please do not wait for confirmation from an IgM test before reporting a suspect case. The health department can save a great deal of valuable time by conducting a preliminary investigation while laboratory results are pending.

Your cooperation in this matter is greatly appreciated.

Sincerely,

SAMPLE LETTER TO PARENTS OF CHILDREN IN CHILD CARE CENTERS

Dear Parents:

A case of hepatitis A has occurred in our child care center. Hepatitis A is an infection of the liver. It is caused by a virus. This virus is present in the bowel movement of infected persons. Persons get infected only by swallowing the virus. Spread occurs easily among groups of small children because of their close contact and poor personal hygiene skills. Hepatitis A usually begins about two to seven weeks after the virus is swallowed. Some persons, usually small children, can be infected and not appear to be sick; however, they can still spread the virus. Older children and adults will often have symptoms such as fever, tiredness, loss of appetite, upset stomach, pain in the right side, and yellowing of the skin and whites of the eyes. Symptoms can last up to several weeks. If symptoms do occur, your doctor and the child care center should be notified.

Persons who have been in very close contact with someone who has hepatitis A can be given an injection (shot) of hepatitis A vaccine or immune globulin (IG) which, if given within two weeks after contact, might prevent the disease. People who need the shot include persons who live in the same house with the infected person and classmates and teachers in child care centers. Hepatitis A is usually not spread among persons at school or at work or in other places where there is very little close contact. Transmission can be prevented by administering hepatitis A vaccine or IG. An additional way to prevent the spread of hepatitis A is for everyone to wash his/her hands with soap and running water, especially after using the bathroom or changing a diaper and before preparing food.

We have made arrangements with the _____ (City/County) Health Department to have the immune globulin shot given here at (name of CCC) on _____ (date). Children who receive IG should not receive MMR (measles, mumps, rubella) vaccine for at least three months. If your child received the MMR shot less than two weeks before getting IG, the MMR must be re-administered in three months.

The center will stay open for business. After getting the hepatitis A vaccine or immune globulin shots, the risk of getting hepatitis A drops. In fact, there could be less risk involved in keeping children in a center where children have had hepatitis A vaccine or IG than in transferring them to a center where children have not had hepatitis A vaccine or IG.

Please Sign and Return this Form as Soon as Possible:

I hereby give permission for my child _____ to receive immune globulin from the _____ (City/County) Health Department. I understand that hepatitis A vaccine and immune globulin are 80%-90% effective in preventing or modifying the disease hepatitis A. I understand that local reaction (redness, soreness) at the injection site might occur.

Signature of Parent/Guardian

Date

Sincerely,

SAMPLE LETTER TO PARENTS OF CHILDREN IN SCHOOLS

Dear Parents:

Recently a (teacher/student) in our school has been diagnosed with hepatitis A. This case has been reported to the _____ (City/County) Health Department. The Health Department has evaluated the situation and supplied the following information and recommendations.

Hepatitis A is caused by a virus that is passed in the stool (bowel movement) of infected persons. Once infected, a person is capable of passing the virus from approximately two weeks before s/he becomes ill through ten days after onset. Transmission requires close personal contact, and the infection is most commonly spread among household members. The virus can also be transmitted through food prepared by an infected person who fails to wash his/her hands after using the bathroom.

Because students and staff do not have direct contact with each other's stool, transmission of hepatitis A in the school setting is extremely unlikely.

Occasionally, concern is expressed over the possibility of transmission of the virus in a restroom used by an infected person. Please remember that infection results from swallowing the virus, and oral contact with stool in a restroom does not commonly occur.

It is recommended that individuals who have close personal contact with an infected person, such as household members, receive an injection of hepatitis A vaccine or immune globulin (gamma globulin) which might prevent hepatitis A. The local health department can best determine who needs preventive hepatitis A vaccine or immune globulin.

Possible symptoms of hepatitis A include fatigue, loss of appetite, diarrhea, dark urine, light-colored stools, and yellowing of the skin and whites of the eyes. Many people infected with the virus do not develop all of the above symptoms, especially preschool children who can have few or no symptoms at all. If your child or any member of your family should develop symptoms of hepatitis A, contact your family physician.

The _____ (City/County) Health Department will answer any questions you may have concerning hepatitis A. The phone number is _____.

Sincerely,
