

a series of fact sheets written
by experts in the field of liver
disease

Hepatitis A: What You Need to Know

Alan Franciscus, Editor-in-Chief
Liz Highleyman
Christine Kukka

HEPATITIS A IS DISEASE OF THE LIVER

caused by the hepatitis A virus (HAV). It is the most common type of viral hepatitis in the United States. The Centers for Disease Control estimate that about 22,000 new HAV infections occur annually in the United States, and it is estimated that one-third of all Americans have been infected with HAV, most during childhood.

HAV Transmission and Prevention

Hepatitis A virus infection continues to be one of the most frequently reported, vaccine-preventable diseases in the United States. The incidence of HAV has dramatically decreased from 180,000 new infections in 1997 to an estimated 22,000 in today. The decrease in new HAV infections is a result of the introduction of the HAV vaccine in 1995 and increased prevention measures.

In the past in the United States, the highest rates of HAV infection occurred disproportionately in the western part of the United States, but since the issuance of recommendation for routine childhood vaccination the rates of HAV are now similar to rates reported in other parts of the country. Children play an important role in the transmission of HAV,

which is why the U.S. Centers for Disease Control and Prevention recommends that all children be vaccinated against HAV at 12 months of age. Children are the ones who are most frequently infected, and, because they rarely have symptoms, they are a silent source of infection for others. Only a small fraction of childhood HAV infections are ever reported to public health authorities, due to the lack of symptoms.

Unlike hepatitis B and C, which spread through contact with infected blood or body fluids, hepatitis A is spread through food and water contaminated by the feces (poop) of people infected with HAV. The virus is spread by hepatitis A virus infected fecal matter that is ingested (by mouth). This can happen even if you can not see it or if it appears to be clean (i.e., a glass of water, ice cubes, etc.).

It is also transmitted through close, personal contact such as changing diapers and through some types of sexual contact (e.g., anilingus, or anal/oral sex) and, rarely, injection drug use.

This virus is extremely hearty. It is able to survive the body's highly acidic digestive tract, and at room temperature it can live for more than a week. In water, it can survive from 3 to 10 months, which is why it is found in some shellfish in sewage-contaminated bodies of water.

Workers in day care centers and long-term care facilities, such as nursing homes, have a higher risk of getting hepatitis A, as do international travelers to areas that have substandard drinking water.

Risk factors associated with reported hepatitis A (Centers for Disease Control, 2007):

- Unknown (67.7%)
- People who have sexual or household contact with an HAV-infected individual (7.8%)
- Men who have sex with men (5.9%)
- Injection drug users (1.2%)
- International travelers (17.5%)

- Suspected food or waterborne outbreak (6.5%)
- Contact at day care centers (4.6%)
- Contact with day care children/employee (3.8%)
- Contact with a hepatitis A patient (9%)

2007: Highest Rates of Acute HAV by Age, Sex and Race/Ethnicity:

- Age: Adults aged 25-39, but since children typically exhibit no symptoms there may be higher rates than reported
- Gender: Males have historically and currently higher rates than females
- Race: American Indian/Alaska Natives have historically had the highest rates of HAV, but the rates decreased from more than 60 cases per 100,000 in 1996 to 0.5 cases per 100,000 population in 2007
- Ethnicity: Rates of new infections among Hispanics account for the highest rates of infection, but the rates have also greatly decreased from 24.1 cases per 100,000 in 1997 to 1.4 cases per 100,000 population in 2007

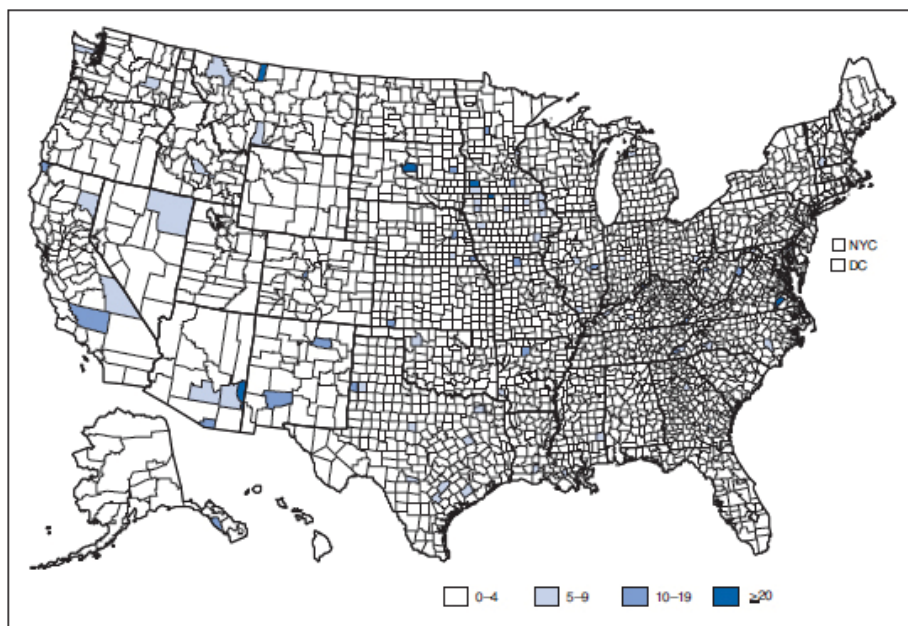
To prevent transmission of HAV, adults and children must wash hands thoroughly, especially after using the toilet or changing diapers. People who are acutely infected with HAV should avoid preparing food for others. Clean up spilled blood or body fluids with a 10:1 bleach solution (10 parts water to 1 part bleach). Wear gloves when touching blood, body secretions, or any cuts or sores. Do not share razors, toothbrushes, or needles. Practice safer sex, including latex condoms and latex or plastic barriers for oral/anal sex.

Thoroughly wash any fruits and vegetables especially if grown outside of the United States—some fruits and vegetables may become contaminated with unprocessed sewage accidentally, or some growers in countries outside of the United States may use human waste as fertilizer.

HAV Symptoms and Progression

Hepatitis A has an incubation period that can be from 15-50 days, but averages 28 days. When symptoms occur in adults, they appear suddenly and may include fever, exhaustion, loss of appetite, nausea and abdominal discomfort, dark urine and jaundice (yellowing of the skin and eyes).

Incidence* of acute hepatitis A, by county – United States, 2007



Source: National Notifiable Diseases Surveillance System, 2007.
*Per 100,000 population – *MMWR* 2009;58(SS-3).

Children younger than age 6, who make up the majority of those who become infected with HAV, usually have no symptoms. Because they are symptom-free, caregivers, parents and household members are at risk of contracting HAV from infected children.

Like all types of hepatitis viruses, HAV infects and inflames the liver. If the elderly, people who have a compromised immune system, or someone with another liver disease such as chronic hepatitis C or B get infected with HAV, they risk more damage to the liver due to an additional virus infecting their liver.

Hepatitis A resolves completely on its own. Symptoms usually last a few weeks,

although fatigue may linger for months. About 10-15 percent of people experience a relapse over a 6-9 month period. There is no chronic or carrier state. **Rarely**, a person may develop fulminant (liver failure) hepatitis A, which is characterized by severe symptoms and may be fatal; fulminant hepatitis A is more likely in people who already have chronic hepatitis B, hepatitis C or other liver diseases or a compromised immune system. This is why it is important that anyone at increased risk for complications should be vaccinated against hepatitis A if they have not been previously infected.

HAV Treatment

Because hepatitis A typically resolves on its own, there is no standard treatment for HAV. However, if a person has been exposed to HAV, an injection of HAV immune globulin (antibodies) given within 14 days of exposure may prevent the development of illness or lessen the severity of symptoms. During the acute period, general measures such as a healthy diet, plenty of fluids and adequate rest can help make a person feel better.

The HAV Vaccine

The HAV vaccine is considered safe and effective. The two-dose vaccine is administered by injection, with the second dose given 6-12 months after the first. Antibody testing after vaccination is not recommended since 97-100% of people given two doses of the HAV vaccine develop protective anti-bodies within 1 month of receiving the first dose and 100% have protective levels after the second dose. Experts believe that the HAV vaccine will provide protection against hepatitis A for 20 years or longer. Some experts believe that people with compromised immune systems (such as people with HIV or people taking immunosuppressants) may require more doses of the HAV vaccine.

There have been no serious adverse reactions attributed to the HAV vaccine. Common side effects may include soreness/tenderness at injection site, headache and malaise.

The vaccine is recommended for anyone at risk of exposure to HAV, including men who have sex with men, day care center workers, and certain international travelers.

People with hepatitis B or C or other types of liver disease should receive the HAV vaccine to prevent fulminant hepatitis A.

Routine mandatory vaccination of school age children in some states has reduced the incidence of outbreaks among children. Vaccination programs have the potential to dramatically reduce future outbreaks, if not eliminate the disease altogether. There is also a combination HAV/ HBV vaccine: Twinrix—3 shots within 6 months. Twinrix has also been approved by the FDA for an accelerated dosing schedule (three shots within 30 days and a booster shot after one year).


For more information about hepatitis A and immunization, visit the following websites.

- Centers for Disease Control and Prevention website on hepatitis A:
<http://www.cdc.gov/ncidod/diseases/hepatitis/a/index.htm>
- Immunization Action Coalition provides extensive information on all childhood immunizations, including hepatitis B:
<http://www.immunize.org>

For more information about hepatitis C, hepatitis B and HCV coinfections, please visit www.hcvadvocate.org.

• *hcsPFACTsheet* •
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<p>Executive Director Editor-in-Chief, HCSP Publications Alan Franciscus</p> <p>Design Paula Fener</p> <p>Production C.D. Mazoff, PhD</p> <p>Contact information: Hepatitis C Support Project PO Box 427037 San Francisco, CA 94142-7037 alanfranciscus@hcvadvocate.org</p>	<p>The information in this fact sheet is designed to help you understand and manage HCV and is not intended as medical advice. All persons with HCV should consult a medical practitioner for diagnosis and treatment of HCV.</p> <p>This information is provided by the Hepatitis C Support Project • a nonprofit organization for HCV education, support and advocacy • © 2011 Hepatitis C Support Project • Reprint permission is granted and encouraged with credit to the Hepatitis C Support Project.</p>
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