

## Hepatitis A, B, and C: Learn the Differences

	<b>Hepatitis A (HAV)</b> caused by the hepatitis A virus	<b>Hepatitis B (HBV)</b> caused by the hepatitis B virus	<b>Hepatitis C (HCV)</b> caused by the hepatitis C virus
<b>How is it spread?</b>	HAV is found in the stool (feces) of HAV-infected persons. HAV is usually spread from person to person by putting something in the mouth (even though it may look clean) that has been contaminated with the stool of a person with hepatitis A. This can happen when people don't wash their hands after using the toilet and then touch other people's food.	HBV is found in blood and certain body fluids. It is spread when blood or body fluid from an infected person enters the body of a person who is not immune. HBV is spread through having sex with an infected person without a condom, sharing needles or "works" when "shooting" drugs, needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth. Exposure to blood in ANY situation can be a risk for transmission.	HCV is found in blood and certain body fluids. It is spread when blood or body fluids from an infected person enters another person's body. HCV is spread through sharing needles or "works" when "shooting" drugs, through needlesticks or sharps exposures on the job, or sometimes from an infected mother to her baby during birth. It is possible to transmit HCV from sex, but it is uncommon.
<b>Who is at risk?</b>	<ul style="list-style-type: none"> <li>• Household contacts of infected persons</li> <li>• Sex partners of infected persons</li> <li>• Persons, especially children, living in regions of the U.S. with consistently elevated rates of hepatitis A during 1987-1997*</li> <li>• Persons traveling to countries where hepatitis A is common (everywhere except Canada, Western Europe, Japan, Australia, and New Zealand)</li> <li>• Men who have sex with men</li> <li>• Injecting and non-injecting drug users</li> </ul>	<ul style="list-style-type: none"> <li>• Persons with more than one sex partner in a 6-month period</li> <li>• Persons diagnosed with a sexually transmitted disease</li> <li>• Men who have sex with men</li> <li>• Sex partners of infected persons</li> <li>• Injecting drug users</li> <li>• Household contacts of infected persons</li> <li>• Infants born to infected mothers</li> <li>• Infants/children of immigrants from areas with high HBV rates</li> <li>• Health care and public safety workers who are exposed to blood</li> <li>• Hemodialysis patients</li> </ul>	<ul style="list-style-type: none"> <li>• Injecting drug users</li> <li>• Health care and public safety workers</li> </ul> <p><b>Who should be tested for HCV?</b> People with increased risk of HCV infection include:</p> <ul style="list-style-type: none"> <li>• Injecting drug users</li> <li>• Recipients of clotting factors made before 1987</li> <li>• Hemodialysis patients</li> <li>• Recipients of blood/solid organs before 1992</li> <li>• People with undiagnosed liver problems</li> <li>• Infants born to infected mothers (after 12 mos of age)</li> <li>• Health care/public safety workers (only after known exposure)</li> </ul> <p><b>People for whom testing may or may not be indicated:</b></p> <ul style="list-style-type: none"> <li>• People having sex with multiple partners</li> <li>• People having sex with an infected steady partner</li> </ul>
<b>What if you are infected?</b>	Viral hepatitis symptoms are similar no matter which type of hepatitis a person has. If symptoms occur, the individual may experience any or all of the following: jaundice, fever, loss of appetite, fatigue, dark urine, joint pain, abdominal pain, diarrhea, nausea, and vomiting. Very rarely, a new case (acute) of viral hepatitis can cause liver failure and death. Sometimes in these instances a liver transplant (if a liver is available) can save a life. Note: Symptoms are less common in children than adults, and people who have HCV infection are less likely to experience symptoms.		

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	<p><b>Incubation period:</b> 15 to 50 days</p> <p>There is no chronic (long-term) infection. Once you have had hepatitis A you cannot get it again. About 15% of people infected with HAV will have prolonged illness or relapsing symptoms over a 6–9 month period.</p>	<p><b>Incubation period:</b> 45 to 160 days, average 90 days</p> <p>Chronic infection occurs in 90% of infants infected at birth; 30% of children infected at age 1–5 years; 6% of persons infected after age 5 years. In the U.S., 5000 people die each year from HBV. Death from chronic liver disease occurs in 15–25% of chronically infected persons. People who have chronic HBV infection have a much higher risk of liver failure (cirrhosis) and liver cancer.</p>	<p><b>Incubation period:</b> 14 to 180 days, average 45 days</p> <p>Chronic infection: 75–85% of infected persons. Chronic liver disease: 70% of chronically infected persons. In the U.S., 8–10,000 people die each year from HCV. People who have chronic HCV infection have a much higher risk of liver failure (cirrhosis) and liver cancer. Chronic HCV-related liver disease is the leading indication for liver transplant.</p>
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<b>What treatment helps?</b>	<ul style="list-style-type: none"> <li>• There is no treatment for hepatitis A.</li> <li>• Avoid alcohol. It can worsen liver disease.</li> </ul>	<ul style="list-style-type: none"> <li>• HBV-infected persons should have a medical evaluation for liver disease every 6–12 months. Alpha-interferon and lamivudine are the two drugs licensed for the treatment of persons with chronic hepatitis B. These drugs are effective in up to 40% of patients. Liver transplant is the last resort, but livers are not always available.</li> <li>• Avoid alcohol. It can worsen liver disease.</li> </ul>	<ul style="list-style-type: none"> <li>• HCV-positive persons should have a medical evaluation for liver disease every 6–12 months. Interferon, pegylated interferon, and ribavirin are the only drugs licensed for the treatment of persons with chronic hepatitis C. Interferon can be taken alone or in combination with ribavirin. Combination therapy is currently the treatment of choice and can eliminate the virus in up to 40% of patients.</li> <li>• Get vaccinated against hepatitis A, and ask your doctor if you need hepatitis B vaccine as well.</li> <li>• Avoid alcohol. It can worsen liver disease.</li> </ul>

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<p><b>How is it prevented?</b></p>	<ul style="list-style-type: none"> <li>• Hepatitis A vaccine is the best protection. It is recommended for people <math>\geq 2</math> yrs of age who are in risk groups for HAV infection. It is recommended as a routine vaccination for children living in certain states and geographic areas where hepatitis A occurs at consistently higher rates than average.</li> <li>• For a recent exposure to someone with HAV or if travel is imminent (leaving in less than 4 weeks) to an area of the world where hepatitis A is common, see your doctor about your need for a dose of immune globulin (IG).</li> <li>• Always wash your hands with soap and water after using the toilet, changing a diaper, and before preparing and eating food.</li> </ul>	<ul style="list-style-type: none"> <li>• Hepatitis B vaccine is the best protection. Routine vaccination is recommended for all persons 0–18 years of age, and for persons of all ages who are in risk groups for HBV infection. For optimal protection all babies should be given their first dose of hepatitis B vaccine at birth before leaving the hospital.</li> <li>• Whenever a woman is pregnant, she should be tested for hepatitis B; infants born to HBV infected mothers should be given HBIG (hepatitis B immune globulin) and vaccine within 12 hours of birth.</li> <li>• Persons who have more than one steady sex partner should use latex condoms correctly and for every sexual encounter. (The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.)</li> </ul>	<p>There is no vaccine to prevent hepatitis C. HCV can be spread by sex, but this is rare. If you are having sex with more than one steady partner, use condoms correctly and every time to prevent the spread of sexually transmitted diseases. (The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use may reduce transmission.) You should also get vaccinated against hepatitis B.</p>
	<p><b>More information to help you prevent hepatitis B and hepatitis C:</b></p> <ul style="list-style-type: none"> <li>• Don't share personal care items that might have blood on them, such as razors, toothbrushes, and washcloths.</li> <li>• Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools or dye have someone else's blood on them or if the artist or piercer does not follow good sterilization practices.</li> <li>• Health care or public safety workers should always follow routine barrier precautions and safely handle needles and other sharps. In addition, they should be vaccinated against hepatitis B.</li> <li>• If you have or have had HBV or HCV infection, do not donate blood, organs, or tissue.</li> <li>• Don't shoot drugs. If you do, try to stop by getting into a treatment program. If you can't stop, never share needles, syringes, water, or "works." Get vaccinated against hepatitis A and B.</li> </ul>		

\*Disease rates are available from your state or local health department.

Adapted from: Immunization Action Coalition [www.immunize.org/catg.d/p4075abc.htm](http://www.immunize.org/catg.d/p4075abc.htm)