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

|                           | Hepatitis A   | Hepatitis B   | Hepatitis C   |
|---------------------------|---|---|---|
|                           | caused by the hepatitis A virus (HAV)   | caused by the hepatitis B virus (HBV)   | caused by the hepatitis C virus (HCV)   |
| How is it spread?         | Hepatitis A is a serious liver disease caused<br>by the hepatitis A virus (HAV). HAV is found in<br>the feces of people with hepatitis A and is<br>usually spread by close personal contact<br>(including sex or sharing a household). It can<br>also be spread by eating food or drinking<br>water contaminated with HAV.  | HBV is found in blood and certain body fluids. It is spread when<br>blood or body fluid from an infected person enters the body of a<br>person who is not immune. HBV is spread through having unpro-<br>tected sex with an infected person, sharing needles or "works"<br>when "shooting" drugs, needlesticks or sharps exposures on the<br>job, or from an infected mother to her baby during birth. Exposure<br>to infected blood in ANY situation can be a risk for transmission.   | HCV is found in blood and certain body fluids. It is<br>spread when blood or body fluid from an infected<br>person enters another person's body.<br>HCV is spread through sharing needles or "works"<br>when "shooting" drugs, through needlesticks or sharps<br>exposures on the job, or sometimes from an infected<br>mother to her baby during birth. It is possible to<br>transmit HCV during sex, but it is uncommon.  |
| Who is at risk?           | <ul> <li>Household contacts of infected persons</li> <li>Sex partners of infected persons</li> <li>Children living in regions of the U.S. that<br/>had consistently elevated rates of hepatitis A<br/>during 1987–1997*</li> <li>Persons traveling to countries where hepatitis<br/>A is common (everywhere except Canada,<br/>Western Europe, Japan, Australia, and New<br/>Zealand)</li> <li>Men who have sex with men</li> <li>Injecting and non-injecting drug users</li> <li>Persons with chronic liver disease should be<br/>vaccinated against hepatitis A.</li> </ul>   | <ul> <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 chronically infected persons</li> <li>Infants born to infected mothers</li> <li>Immigrants and children of immigrants from areas with<br/>elevated HBV rates, including Asia, Africa, the Pacific Islands,<br/>Eastern Europe, the Middle East, and the Amazon Basin.</li> <li>Healthcare and public safety workers who might be exposed<br/>to blood</li> <li>Chronic hemodialysis patients</li> </ul>  | <ul> <li>Injecting drug users</li> <li>Recipients of clotting factors made before 1987</li> <li>Hemodialysis patients</li> <li>Recipients of blood or solid organ transplants before 1992</li> <li>Infants born to HCV-infected mothers</li> <li>Although HCV is not commonly spread through sex, persons having sex with multiple partners or with an infected steady partner may be at increased risk of HCV infection.</li> <li>People with undiagnosed abnormal liver test results should be tested for HCV infection.</li> </ul>   |
| What if you are infected? | The only way to know if you have already been infected is to have your blood tested for HAV, HBV, or HCV infection. If you are in one of the risk groups listed above, talk to your healthcare provider about your need for blood testing. 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 in adults, and people who have HCV infection are less likely to experience symptoms. |   |   |
|                           | <b>Incubation period:</b> 15 to 50 days, average 28 days<br>There is no chronic (long-term) infection. Once<br>you have had hepatitis A, you cannot get it<br>again. About 15% of people infected with HAV<br>will have prolonged illness or relapsing<br>symptoms over a 6–9 month period.   | Incubation period: 45 to 160 days, average 120 days<br>Chronic infection occurs in up to 90% of infants infected at birth;<br>30% of children infected at age 1–5 years; 2–6% of persons<br>infected after age 5 years.<br>In the U.S., 5000 people die each year from HBV. Death from<br>chronic liver disease occurs in 15–25% of chronically infected per-<br>sons. People who have chronic HBV infection have a much higher<br>risk of liver failure (cirrhosis) and liver cancer.  | Incubation period: 14 to 180 days, average 45 days<br>Chronic infection: 75–85% of infected persons<br>Chronic liver disease: 70% of chronically infected<br>persons. In the U.S., 8–10,000 people die each year from<br>HCV. People who have chronic HCV infection have a<br>much higher risk of liver failure (cirrhosis) and liver cancer.<br>Chronic HCV-related liver disease is the leading<br>indication for liver transplant.   |
| What treatment helps?     | <ul> <li>There is no treatment for hepatitis A.</li> <li>Avoid alcohol. It can worsen liver disease.</li> </ul>   | <ul> <li>Persons with chronic HBV infection should have a medical evaluation for liver disease every 6–12 months. Several antiviral medications are currently 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> <li>Persons with chronic HCV infection 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. Combination therapy is currently the treatment of choice and can eliminate the virus in approximately 50% of patients (genotype 1).</li> <li>Get vaccinated against hepatitis A, and ask your healthcare provider if you need hepatitis B vaccine as well.</li> <li>Avoid alcohol. It can worsen liver disease.</li> </ul> |
| How is it prevented?      | <ul> <li>Hepatitis A vaccine is the best protection.<br/>It is recommended for all children at 1 year of age (i.e., 12–23 months) and individuals who are in risk groups for HAV infection or for severe outcomes from infection.</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 healthcare provider 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> <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. All newborns should be given their first dose of hepatitis B vaccine before leaving the hospital.</li> <li>There is no medical reason that hepatitis B vaccine cannot be given to anyone who wants it.</li> <li>Whenever a woman is pregnant, she should be given HBIG (hepatitis B immune globulin) and vaccine within 12 hours of birth.</li> <li>Persons who are not in mutually monogamous relationships should use latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.)</li> </ul>   | <ul> <li>There is no vaccine to prevent hepatitis C.</li> <li>HCV can be spread by sex, but this is rare. If you are not in a mutually monogamous relationship, 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.</li> </ul>  |
|                           | There is no medical reason that hepatitis A vaccine cannot be given to anyone age 1 yr and older who wants it.  | <ul> <li>More information to help you prevent hepatitis B and hepatitis C:</li> <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>Healthcare 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.

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