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

<table>
<thead>
<tr>
<th>Hepatitis A</th>
<th>Hepatitis B</th>
<th>Hepatitis C</th>
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<tbody>
<tr>
<td>caused by the hepatitis A virus (HAV)</td>
<td>caused by the hepatitis B virus (HBV)</td>
<td>caused by the hepatitis C virus (HCV)</td>
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### How is it spread?
- **HAV** is found in the feces of people with hepatitis A and is usually spread by close personal contact (including sex or sharing a household). It can also be spread by eating food or drinking water contaminated with HAV.
- **HBV** is found in blood and certain body fluids. The virus 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 unprotected sex with an infected person, sharing needles or "works" when shooting drugs, exposure to needles or sharps on the job, or from an infected mother to her baby during birth. Exposure to infected blood in ANY situation can be a risk for transmission.
- **HCV** is found in blood and certain body fluids. The virus is spread when blood or body fluid from an HCV-infected person enters another person’s body. HCV is spread through sharing needles or "works" when shooting drugs, through exposure to needles or sharps on the job, or sometimes from an infected mother to her baby during birth. It is possible to transmit HCV during sex, but it is not common.

### Who should be vaccinated?
- **HAV**
  - All children at age 1 year (i.e., 12–23 mos.).
  - Older children in cities and states where routine hepatitis A vaccination is recommended
  - Household contacts of infected persons
  - Sex partners of infected persons
  - Persons traveling to countries where hepatitis A is common (all except Canada, Western Europe, Japan, Australia, and New Zealand)
  - Men who have sex with men
  - Injecting and non-injecting drug users
  - Persons with chronic liver disease
  - Any person who wants protection from HAV infection

- **HBV**
  - All children and teens ages 0–18 years
  - Healthcare & public safety workers who might be exposed to blood
  - International travelers to moderate- or high-risk areas of the world
  - Household contacts of chronically (life-long) infected persons
  - Immigrants & children of immigrants from areas with elevated HBV rates, such as Africa, Asia, the Pacific Islands, Eastern Europe
  - Sexually active persons who are not in long-term mutually monogamous relationships
  - Persons diagnosed with a sexually transmitted disease
  - Men who have sex with men
  - Sex partners of HBV-infected persons
  - Injecting drug users
  - Persons with severe kidney disease (including predialysis/dialysis)
  - All persons who wish to be protected from HBV infection

- **HCV**
  - Injecting drug users
  - Recipients of clotting factors made before 1987
  - Hemodialysis patients
  - Recipients of blood or solid organ transplants before 1992
  - Infants born to HCV-infected mothers
  - People with undiagnosed abnormal liver test results

### When should you be tested?
- **HAV**
  - 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 concerned about your risk, talk to your healthcare provider about your need for blood testing. Viral hepatitis symptoms are similar no matter which type of hepatitis you have. If symptoms occur, you might experience any or all of the following: jaundice (yellowing of the skin and whites of the eyes), fever, loss of appetite, fatigue, dark urine, joint pain, abdominal pain, diarrhea, nausea, and vomiting. Very rarely, a recently acquired case 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: For all types of viral hepatitis, symptoms are less common in children than in adults, and for people of any age with HCV infection, they are less likely to experience symptoms.

- **HBV**
  - Incubation period: 15 to 50 days, average 28 days
  - There is no chronic infection. Once you have had HAV infection, you cannot get it again. About 15 out of 100 people infected with HAV will have prolonged illness or relapsing symptoms over a 6–9 month period.

- **HCV**
  - Incubation period: 14 to 180 days, average 45 days
  - Chronic infection occurs in 55%–85% of infected persons and 70% of chronically infected persons go on to develop chronic liver disease. 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 and liver cancer. Chronic HCV-related liver disease is the leading cause for liver transplant.

### What if you are infected?
- **HAV**
  - Incubation period: 15 to 50 days, average 28 days
  - There is no chronic infection. Once you have had HAV infection, you cannot get it again.

- **HBV**
  - Incubation period: 45 to 160 days, average 120 days
  - Chronic infection occurs in up to 90% of infants infected at birth; in 30% of children infected at ages 1–5 years; and in up to 6% of persons infected after age 5 years.
  - In the U.S., 5,000 people die each year from hepatitis B. 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 and liver cancer.

- **HCV**
  - Incubation period: 14 to 180 days, average 45 days
  - Chronic infection occurs in 55%–85% of infected persons and 70% of chronically infected persons go on to develop chronic liver disease. 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 and liver cancer. Chronic HCV-related liver disease is the leading cause for liver transplant.

### What treatment helps?
- **HAV**
  - There is no treatment for hepatitis A other than supportive care.
  - Avoid alcohol. It can worsen liver disease.
  - There is no medication to treat recently acquired HAV infection.

- **HBV**
  - 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 preventing serious liver problems in up to 40% of patients, but the drugs do not get rid of the virus. Liver transplant is the last resort, but livers are not always available.
  - Avoid alcohol. It can worsen liver disease.

- **HCV**
  - Persons with chronic HCV infection should have a medical evaluation for liver disease every 6–12 months.
  - There are 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 with genotype 1 (the most common genotype in the U.S.).
  - Get vaccinated against hepatitis A and B.
  - Avoid alcohol. It can worsen liver disease.
  - There is no medication for the treatment of recently acquired hepatitis C.

### How is it prevented?
- **HAV**
  - Hepatitis A vaccination is the best protection. Vaccination is recommended for all children at age 1 year (i.e., 12–23 months), for older children who live in areas where hepatitis A vaccination programs are in place, for persons listed in risk groups (see above), and for any person who wishes to be protected from hepatitis A.
  - For a recent exposure to someone with HAV or if travel is soon (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).
  - Always wash your hands with soap after using the toilet, changing a diaper, and before preparing and eating food.
  - Hepatitis A vaccine can be administered to any person age 1 year or older who wants to be protected from HAV infection.

- **HBV**
  - Hepatitis B vaccination is the best protection. Routine vaccination is recommended for all persons 0–18 years of age, for all newborns at birth before hospital discharge, for persons of all ages who are in risk groups for HBV infection (see above), and for any person who desires protection from hepatitis B.
  - Wherever 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.
  - Persons who are not in mutually monogamous relationships should use latex condoms correctly and for every sexual encounter. (The efficacy of latex condoms in preventing hepatitis B infection is unknown, but their proper use may reduce transmission.)

- **HCV**
  - There is no vaccine to prevent hepatitis C.
  - HCV can be spread by sex, but this is not common. If you are not in a mutually monogamous relationship, use latex condoms correctly and every time to prevent the spread of sexually transmitted diseases. (The efficacy of latex condoms in preventing HCV infection is unknown, but their proper use may reduce transmission.) In addition to getting hepatitis A vaccine, you should also get hepatitis B vaccine.

### More information to help you prevent hepatitis B and hepatitis C:
- Don’t share personal care items that might have blood on them, such as razors, toothbrushes, and washcloths.
- 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.
- Healthcare or public safety workers should always follow routine barriers precautions and safely handle needles and other sharps.
- In addition, they should be vaccinated against hepatitis B.
- If you have or have had HBV or HCV infection, do not donate blood, organs, or tissue.
- Don’t shoot drugs. If you do, try to stop by getting into a treatment program. If you can’t stop, never share drugs, needles, or “works” (syringes, water, spoons, or cotton). Get vaccinated against hepatitis A and B.