

What is hepatitis C?

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV), which is found in the blood of persons who have this disease. HCV is spread by contact with the blood of an infected person.

How is hepatitis C diagnosed?

There are several blood tests that can be done to determine if you have been infected with HCV. Your doctor may order just one or a combination of these tests. The following are the types of tests your doctor may order and the purpose for each:

Anti-HCV (antibody to HCV)

- EIA (enzyme immunoassay).
This test is usually done first. If positive, it should be confirmed.
- RIBA (recombinant immunoblot assay).
A supplemental test used to confirm a positive EIA test.

Anti-HCV does not tell whether the infection is new (acute), chronic (long-term) or is no longer present.

Who should get tested for hepatitis C?

- persons who ever injected illegal drugs, including those who injected once or a few times many years ago
- persons who were treated for clotting problems with a blood product made before 1987 when more advanced methods for manufacturing the products were developed
- persons who were notified that they received blood from a donor who later tested positive for hepatitis C
- persons who received a blood transfusion or solid organ transplant before July 1992 when better testing of blood donors became available
- long-term hemodialysis patients
- persons who have signs or symptoms of liver disease (e.g., abnormal liver enzyme tests)
- healthcare workers after exposures (e.g., needle sticks or splashes to the eye) to HCV-positive blood on the job
- children born to HCV-positive women

How is HCV spread from one person to another?

HCV is spread primarily by direct contact with human blood. For example, you may have gotten infected with HCV if:

- you ever injected street drugs, as the needles and/or other drug "works" used to prepare or inject the drug(s) may have had someone else's blood that contained HCV on them
- you received blood, blood products, or solid organs from a donor whose blood contained HCV
- you were ever on long-term kidney dialysis as you may have unknowingly shared supplies/equipment that had someone else's blood on them
- you were ever a healthcare worker and had frequent contact with blood on the job, especially accidental needle sticks
- your mother had hepatitis C at the time she gave birth to you; during birth her blood may have gotten into your body
- you ever had sex with a person infected with HCV
- you lived with someone who was infected with HCV and shared items such as razors

or toothbrushes that might have had his/her blood on them

Is there any evidence that HCV has been spread during medical or dental procedures done in the United States?

Medical and dental procedures done in most settings in the United States do not pose a risk for the spread of HCV. There have, however, been some reports that HCV has been spread between patients in hemodialysis units where supplies or equipment may have been shared between patients.

Can HCV be spread by sexual activity?

Yes, but this does not occur very often. If you are having sex, but not with one steady partner:

- you and your partners can get other diseases spread by having sex (e.g., AIDS, hepatitis B, gonorrhea or chlamydia)
- you should use latex condoms correctly and every time
- you should get vaccinated against hepatitis B

Can HCV be spread within a household?

Yes, but this does not occur very often. If HCV is spread within a household, it is most likely due to direct exposure to the blood of an infected household member.

Should pregnant women be routinely tested for anti-HCV?

No. Pregnant women have no greater risk of being infected with HCV than non-pregnant women. If pregnant women have risk factors for hepatitis C, they should be tested for anti-HCV.

What is the risk that HCV infected women will spread HCV to their newborn infants?

About 5 out of every 100 infants born to HCV infected women become infected. This occurs at the time of birth, and there is no treatment that can prevent this from happening. Most infants infected with HCV at the time of birth have no symptoms and do well during childhood. More studies are needed to find out if these children will have problems from the infection as they grow older. There are no licensed treatments or guidelines for the treatment of infants or children infected with HCV. Children with elevated ALT (liver enzyme) levels should be referred for evaluation to a specialist familiar with the management of children with HCV-related disease.

Should a woman with hepatitis C be advised against breast-feeding?

No. There is no evidence that breast-feeding spreads HCV. HCV-positive mothers should consider abstaining from breast-feeding if their nipples are cracked or bleeding.

How can you protect yourself from getting hepatitis C and other diseases spread by contact with human blood?

- Do not ever shoot drugs. If you shoot drugs, stop and get into a treatment program. If you cannot stop, never reuse or share syringes, water or drug works and get vaccinated against hepatitis A and hepatitis B.
- Do not share toothbrushes, razors or other personal care articles. They might have blood on them.
- If you are a healthcare worker, always follow routine barrier precautions and safely handle needles and other sharps. Get vaccinated against hepatitis B.

- Consider the health risks if you are thinking about getting a tattoo or body piercing. You can get infected if:
 - the tools that are used have someone else's blood on them.
 - the artist or piercer doesn't follow good health practices, such as washing hands and using disposable gloves.

What can persons with HCV infection do to protect their liver?

- Stop using alcohol.
- See your doctor regularly.
- Do not start any new medicines or use over-the-counter, herbal and other medicines without a physician's knowledge.
- Get vaccinated against hepatitis A if liver damage is present.

What other information should patients with hepatitis C be aware of?

- HCV is not spread by sneezing, hugging, coughing, food or water, sharing eating utensils or drinking glasses, or casual contact.
- Persons should not be excluded from work, school, play, child-care or other settings on the basis of their HCV infection status.
- Involvement with a support group may help patients cope with hepatitis C.

Should persons with chronic hepatitis C be vaccinated against hepatitis B?

If persons are in risk groups for whom hepatitis B vaccine is recommended, they should be vaccinated. ([A Comprehensive Strategy for Eliminating Transmission in the United States Through Universal Childhood Vaccination](#)).

What are the chances of persons with HCV infection developing long term infection, chronic liver disease, cirrhosis, liver cancer, or dying as a result of hepatitis C?

Of every 100 persons infected with HCV about:

- 85 persons may develop long-term infection,
- 70 persons may develop chronic liver disease,
- 15 persons may develop cirrhosis over a period of 20 to 30 years, and
- 5 persons may die from the consequences of long term infection (liver cancer or cirrhosis).

What is the treatment for chronic hepatitis C?

Antiviral drugs such as interferon used alone or in combination with ribavirin, are approved for the treatment of persons with chronic hepatitis C. Interferon works in 10-20 persons out of 100 treated. Interferon combined with ribavirin works (on the viral strain that is mostly found in the U.S.) in about 30-40 persons out of 100. Ribavirin, when used alone, does not work.

What is the risk for HCV infection from a needle stick exposure to HCV contaminated blood?

After needle stick or sharps exposure to HCV positive blood, about 2 (1.8%) healthcare workers out of 100 will get infected with HCV (range 0% - 10%).

What are the recommendations for follow-up of healthcare workers after exposure to HCV positive blood?

Anti-viral agents (e.g., interferon) or immune globulin should not be used for postexposure prophylaxis.

1. For the source, baseline testing for anti-HCV.
2. For the person exposed to an HCV-positive source, baseline and follow-up testing including:
 - o baseline testing for anti-HCV and ALT activity; and
 - o follow-up testing for anti-HCV (e.g., at 4-6 months) and ALT activity. (If earlier diagnosis of HCV infection is desired, testing for HCV RNA may be performed at 4-6 weeks.)
3. Confirmation by supplemental anti-HCV testing of all anti-HCV results reported as positive by enzyme immunoassay.

Should HCV-infected healthcare workers be restricted in their work?

No. There are no recommendations to restrict a healthcare worker who is infected with HCV. The risk of transmission from an infected healthcare worker to a patient appears to be very low. As recommended for all healthcare workers, those who are HCV positive should follow strict aseptic technique and standard precautions, including appropriate use of hand washing, protective barriers and care in the use and disposal of needles and other sharp instruments.