What is hepatitis C?

Hepatitis C is a virus that uses liver cells to reproduce. As the body's immune system works to defend against this virus, inflammation, injury, and ultimately scarring of the liver may occur. The hepatitis C virus is found in the blood of persons who have this disease. Hepatitis C is spread by contact with the blood of an infected person.

How is hepatitis C diagnosed?

Two blood tests can be done to determine if you have been infected with hepatitis C. Your doctor may order just one or both tests. The following are the types of tests your doctor may order and the purpose for each:

- Anti-HCV (antibody to hepatitis C)
  This test is usually done first. If positive, it should be confirmed with an HCV RNA. A positive anti-HCV in a person who has not been previously reported meets the case definition for probable acute hepatitis C if clinical criteria are present or the case definition for probable chronic hepatitis C if clinical criteria are not present.
- HCV RNA (also referred to as NAT or PCR)
  This test will tell you if you have the virus present in your blood, which indicates that you are currently infected. A positive HCV RNA without clinical criteria meets the case definition for confirmed, chronic hepatitis C, while a positive HCV RNA with clinical criteria meets the case definition for confirmed, acute hepatitis C.

Who should be tested for hepatitis C?

The CDC recommends hepatitis C screening for:

- All adults 18 years and older at least once in their lifetime.
- Pregnant people, during each pregnancy.

Groups of increased risk for which the CDC recommends at least one-time testing:

- Current or former injection drug users, including those who injected only once many years ago.
- Everyone born from 1945 through 1965.
- Recipients of clotting factor concentrates made before 1987.
- Recipients of blood transfusions or solid organ transplants before July 1992.
- Patients who have ever received long-term hemodialysis treatment.
- Persons with known exposures to HCV, such as
  - Healthcare, emergency medical, and public safety workers after needle sticks involving HCV-positive blood.
  - Recipients of blood or organs from a donor who later tested HCV-positive.
- All persons with HIV infection.
- Children born to HCV-positive mothers. To avoid detecting maternal antibody, these children should be tested with HCV RNA after 2 months of age.

How is hepatitis C virus spread from one person to another?

Hepatitis C virus is spread primarily by direct contact with human blood, particularly through large or repeated percutaneous (i.e., passage through the skin) exposures to infectious blood, including:

- Injection drug use (currently the most common means of HCV transmission in the United States).

- Receipt of donated blood, blood products, and organs (once a common means of transmission, but now rare in the United States since blood screening became available in 1992).
- Needle stick injuries in healthcare settings.
- Birth to an HCV-infected mother.

HCV can also be spread infrequently through:

- Sex with an HCV-infected person (an inefficient means of transmission).
- Sharing personal items contaminated with infectious blood, such as razors or toothbrushes (also inefficient vectors of transmission).
- Other healthcare procedures that involve invasive procedures, such as injections (usually recognized in the context of outbreaks).
- Unregulated tattooing.

Is there any evidence that hepatitis C virus 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 hepatitis C. There have, however, been some reports that hepatitis C virus has been spread between patients in hemodialysis units where supplies or equipment may have been shared between patients and in outpatient clinics where proper infection control was not maintained. If healthcare-associated HCV infection is suspected, this should be reported to state and local public health authorities.

Can hepatitis C virus 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., HIV, hepatitis B, syphilis, gonorrhea, or chlamydia);
- You should use condoms correctly and every time you have sex; and
- You should be vaccinated against hepatitis B.

Can hepatitis C virus be spread within a household?

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

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

- Do not ever inject drugs. If you inject drugs, stop and get into a treatment program. If you cannot stop, never reuse or share syringes, water, or drug works, and be 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 Standard 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.
    - The ink used for your tattoo is contaminated with someone else’s blood.

What can persons with hepatitis C virus infection do to protect their livers?

- Stop drinking alcohol.
- See the doctor regularly.
- Do not start any new medicines or use over-the-counter, herbal, and other medicines or supplements without a physician's knowledge.
- Get vaccinated against hepatitis A and hepatitis B.

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

- Hepatitis C virus 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 because of their hepatitis C virus infection status. There is no evidence of hepatitis C transmission from food handlers, teachers, or other service providers in the absence of blood-to-blood contact. There is a low but present risk for transmission with sex partners.
- Sharing personal items that might have blood on them, such as toothbrushes or razors, can pose a risk to others.
- Cuts and sores on the skin should be covered to keep from spreading infectious blood or secretions.
- Donating blood, organs, tissue, or semen can spread hepatitis C to others.
- Involvement with a support group may help patients cope with hepatitis C.

What are the chances of persons with hepatitis C virus infection developing chronic HCV infection, chronic liver disease, cirrhosis, liver cancer, or dying because of hepatitis C?

Of every 100 persons infected with HCV, approximately:

- 75-85 persons will develop chronic HCV infection.
- 60-70 persons will develop chronic liver disease.
- 5-20 persons will develop cirrhosis over a period of 20 to 30 years.
- 1-5 persons will die from the consequences of chronic infection (liver cancer or cirrhosis).

What is the treatment for chronic hepatitis C?

Because of advances in the field of antiviral therapy for chronic hepatitis C, individuals with hepatitis C should consult with physician specialists knowledgeable about hepatitis C to obtain the most up-to-date recommendations regarding treatment.

Can people become infected with a different strain of HCV after they have cleared the initial infection?

Yes. Prior infection with HCV does not protect against later infection with the same or different genotypes of the virus. This is because people infected with HCV typically have an ineffective immune response due to changes in the virus during infection. For the same reason, no effective pre- or post-exposure prophylaxis is available.

For more information, please visit these websites:

- CDC Hepatitis C: www.cdc.gov/hepatitis-c

What is the risk for hepatitis C virus infection from a needle stick exposure to hepatitis C virus contaminated blood?
After needle stick or sharps exposure to HCV-positive blood, the risk of HCV infection is approximately 0.1%.

Other than needle sticks, do other exposures, such as splashes to the eye, pose a risk to healthcare personnel for hepatitis C transmission?
Although a few cases of hepatitis C transmission via blood splash to the eye have been reported, the risk for such transmission is expected to be very low. Avoiding occupational exposure to blood by following Standard Precautions is the primary way to prevent transmission of bloodborne infections among healthcare personnel. Depending on the medical procedure involved, Standard Precautions may include the appropriate use of personal protective equipment such as gloves, masks, gowns, and protective eyewear.

What is the recommended management of a healthcare worker with occupational exposure to HCV?
Postexposure prophylaxis (PEP) for hepatitis C is not recommended, as outlined in the 2001 MMWR on management of health-care personnel (HCP) who have occupational exposure to blood and other body fluids. Test the source for HCV RNA. If the source is HCV RNA positive, or the HCV infection status is unknown, follow this testing algorithm:

- Perform baseline testing for anti-HCV and ALT; AND
- Test with HCV RNA at four to six weeks after exposure (follow-up testing with anti-HCV can also be performed at four to six months).

Should hepatitis C virus-infected healthcare workers be restricted in their work?
There are no CDC recommendations to restrict a healthcare worker who is infected with hepatitis C virus. The risk of transmission from an infected healthcare worker to a patient appears to be very low. All healthcare personnel, including those who are hepatitis C virus-positive, should follow strict aseptic technique and Standard Precautions, including appropriate hand hygiene, use of protective barriers, and safe injection practices.