

# Hepatitis C

Other tests that may be performed to find out how severely your liver has been damaged include:

- Liver biopsy. This surgical procedure may be performed to obtain a sample of liver tissue that can be examined under a microscope.
- Liver fibrosis assay. This is a blood test that can provide information about the extent of liver damage caused by chronic hepatitis C. It can be used to establish a baseline measurement of the health of your liver before you start drug therapy and to monitor the health of your liver after you have completed drug therapy. For people who are at increased risk for complications from a liver biopsy, the liver fibrosis assay is another way to measure the health of the liver.
- Ultrasound exam. This exam may be used to screen for liver cancer.<sup>2,3</sup>

## How is hepatitis C treated?

Hepatitis C may be treated with drugs that help the body attack and kill viruses. The goal is to reduce the amount of virus in the liver and slow the progression of liver damage.

Guidance for hepatitis C treatment in adults is continuously changing as new therapies are developed and new information is presented.<sup>4</sup> Treatment for chronic HCV will vary based on the genotype of HCV you are infected with, whether you have been previously treated for HCV, the status of your liver, and other factors including laboratory test results. You should discuss treatment options with your doctor.

## Where can I find more information?

You can get more information about hepatitis C from the following sources:

### American Liver Foundation

800-GO-LIVER • 800-465-4837  
www.liverfoundation.org

### Centers for Disease Control and Prevention

800-CDC-INFO • 800-232-4636  
www.cdc.gov

### Hepatitis Foundation International

800-891-0707  
www.hepfi.org

### American Association for the Study of Liver Diseases

703-299-9766  
www.aasld.org

### References

1. Centers for Disease Control and Prevention. Hepatitis C FAQs for health professionals. [CDC Web site]. September 1, 2010. Available at: <http://www.cdc.gov/hepatitis/HCV/HCVfaq.htm>. Accessed September 16, 2010.
2. National Institute of Diabetic and Digestive and Kidney Diseases Web site. Chronic hepatitis C: Current disease management. Available at: <http://digestive.niddk.nih.gov/ddiseases/pubs/chronichepc/index.htm>. Accessed September 16, 2010.
3. Wilkins T, Malcolm JK, Raina D, Schade RR. Hepatitis C: diagnosis and treatment. *American Family Physician*. 2010;81(11):1351-1357.
4. American Association for the Study of Liver Diseases, Infectious Disease Society of America, and International Antiviral Society—USA. Recommendations for Testing, Managing, and Treating Hepatitis C. Available at: <http://www.hcvguidelines.org>. Accessed January 29, 2015.

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# What is Hepatitis C?

Hepatitis C is a liver disease caused by infection with the hepatitis C virus (HCV). Your liver is located in your abdomen, above and to the right of your stomach. It performs many important functions. For example, it stops bleeding and helps fight infections, cleanses your blood, and stores energy for your body.

HCV causes the cells in your liver to become inflamed. If the inflammation does not go away, your liver may eventually become damaged and might not work the way it should.

## How is the hepatitis C virus spread?

The hepatitis C virus is spread when the blood of an infected person enters the body of a person who is not infected. The most common ways HCV is spread include<sup>1,2</sup>:

- Injecting drugs, especially if it involves sharing needles or “works” used to inject illegal drugs. This is the main way HCV is transmitted in the United States.
- Being stuck with a needle or sharp that has HCV-infected blood on it. This is an on-the-job hazard for many health care workers.
- Sharing household items that could have an infected person’s blood on them (for example, razors or toothbrushes).
- Having sexual contact with a partner who is infected with HCV. This does not happen very often.

Before 1992, donated blood was not tested for the hepatitis C virus. If you received a blood transfusion or blood clotting factors (given to treat hemophilia) before that time, you may have become infected with HCV.<sup>1,2</sup>

Likewise, if you received a solid organ or tissue transplant before donor organs were screened for HCV, you may have become infected.<sup>1,2</sup>

In August 2012, the Centers for Disease Control and Prevention (CDC) issued final guidance recommending that all people born during 1945-1965 be screened for HCV infection.

A newborn baby also can become infected with HCV if the baby’s mother has hepatitis C when she gives birth.<sup>1,2</sup>

## What does hepatitis C do to the body?

Shortly after HCV enters your body, it causes the cells in your liver to become inflamed. This is the **acute** phase of hepatitis C. If liver inflammation lasts longer than 6 months, as it does in most cases, the disease has entered the long-term, or **chronic** phase.<sup>1,2</sup>

Some people develop flulike symptoms or even jaundice (yellow eyes and skin, dark-colored urine, light-colored stools) during the acute stage of HCV infection; however, most people have no symptoms and are not aware that they are infected with HCV.<sup>1</sup> The infection is often diagnosed when a person’s blood is tested for donation or another reason.<sup>1</sup>

If you have chronic hepatitis C, it is important that you visit your doctor regularly so the health of your liver can be monitored. The ongoing inflammation caused by chronic hepatitis C may damage liver tissue, and when the damaged tissue dies it is replaced with scar tissue. This process is called **fibrosis**.

The development of liver fibrosis is usually a slow process that does not cause symptoms. However, unless its progress is stopped, fibrosis can lead to **cirrhosis**, which is scar tissue buildup so severe that it changes the structure of the liver and may eventually cause liver failure. Among people who have chronic hepatitis C, 5% to 20% are reported to develop cirrhosis over a period of 20 to 30 years.<sup>1</sup> Hepatitis C-caused liver failure is one of the main reasons people in the United States need liver transplants.<sup>1,2</sup> In addition, about 1% to 5% of people who have chronic hepatitis C will die from cirrhosis or liver cancer.<sup>1</sup>

## How is hepatitis C diagnosed and monitored?

Your doctor may perform one or more of the following blood tests to diagnose hepatitis C and gather information about the health of your liver that will help guide treatment decisions. Once you have been diagnosed with hepatitis C, some of the tests may be repeated from time to time to determine whether the infection has gone away, whether liver disease is progressing, or if the health of your liver is improving in response to treatment.

- **Hepatitis C antibody test (anti-HCV)** - When the hepatitis C virus infects your liver cells, your body’s natural defense (immune) system responds by creating proteins called antibodies. A positive anti-HCV antibody test indicates that HCV has been present in your blood, but it does not tell your doctor whether you have an acute infection, a chronic infection, or whether you once had an infection that is now gone.
- **Hepatitis C RNA (HCV RNA)** - These tests are done to determine if there is hepatitis C virus in your blood and can also tell you how much virus is present. The amount of hepatitis C virus in your blood is sometimes referred to as your viral load.
- **Liver function test** - This test is mainly done to determine how much of an enzyme called alanine aminotransferase (ALT) is in your blood. Liver cells release ALT when they are injured or diseased. If your ALT level is abnormally high, this tells your doctor that there is something wrong with your liver, but it does not identify hepatitis C as the cause of the problem.
- **Genotyping** - A sample of your blood may be tested to determine which genotype of the hepatitis C virus you have. Knowing your genotype helps your doctor select the appropriate drug therapy and may help predict how likely you are to respond.