



Patient Information



Update on Hepatitis C Virus

Approximately 3.2 million people in the United States have chronic hepatitis (HEP-uh-TY-tiss) C virus infection, resulting in 8,000 to 10,000 deaths annually. The hepatitis C infection is caused by the hepatitis C virus (HCV). People infected with HCV usually are undiagnosed, because the disease is typically asymptomatic.

HCV is a liver disease that produces inflammation—the red swelling that results when tissues of the body become injured or infected—which causes organs to function improperly.

The disease becomes chronic when the body cannot get rid of the virus on its own. This happens in approximately 75% to 85% of all cases. Approximately 15% to 25% of HCV-infected people are able to clear the virus from their bloodstream over a few months and do not develop chronic infection; however, without treatment, HCV can cause permanent damage to the liver or liver failure.

No vaccine exists for HCV; therefore, prevention and treatment are vital in fighting the disease. At least 6 different types of HCV genotypes (1-6) and more than 50 subtypes have been identified. Genotype 1, however, is the most common in the United States.

How do I know if I'm at risk?

You may be at risk for HCV developing if you have been on long-term kidney dialysis, have unprotected sex with a person who is infected with HCV, inject street drugs or share a needle with someone who is infected with HCV, or share personal items such as toothbrushes and razors

with someone infected with the disease. Other risk factors include being born to an HCV-infected mother and receiving a tattoo or acupuncture with a contaminated instrument.

People who received a blood transfusion or organ transplant before July of 1992 or people with hemophilia who received blood products before 1987 are also at risk for HCV infection.

What are the warning signs?

Most people who carry the HCV infection do not show symptoms. Some cases show no symptoms until liver damage is present, which may take up to 10 or more years to develop. Jaundice (JAWN-diss), a yellowish tint to the skin, may appear in about 10% of the infected population, but it gets better over time. If the HCV infection has been present for a significant amount of time, there may be permanent scarring in the liver. This is called cirrhosis (sur-ROH-siss), and it occurs in about 5 to 20 of every 100 people over 20 to 30 years.

Although symptoms may be uncommon, there may be some signs that you should be examined by your doctor. Abdominal pain in the right upper area, abdominal swelling, and bleeding from the esophagus or stomach are all signs that medical attention is needed. If you experience fatigue, itching, jaundice, loss of appetite, and pale or clay-colored stools, you should seek medical attention.

What tests do I need?

Testing is recommended for anyone who has an increased risk of HCV. Several blood



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tests can be performed to diagnose the infection, including antibody tests, qualitative tests, and quantitative tests. Anti-HCV tests, which screen for antibody to HCV, can detect infection within 4 to 10 weeks.

A liver biopsy may also be ordered, to test for liver damage. In this procedure, a needle is used to remove a small piece of the liver, which is then examined with a microscope. This test will help your doctor determine if you are a candidate for a liver transplant.

How can I avoid the problem?

Avoid contact with blood or blood products, because it's nearly impossible to determine whether the blood is infected with HCV. If you cannot avoid contact, follow safety precautions, such as wearing gloves or face masks, when handling the fluids.

Transmission through sexual intercourse is low among monogamous couples. However, having sex outside of the relationship will put you at risk. Practice safe sex behaviors to avoid contracting HCV and other sexually transmitted diseases.

Before taking any vitamins or nutritional supplements, discuss the options with your doctor. Some medications may cause more harm to the liver. Avoid substances that are harmful to the liver and your overall health, such as alcohol and some over-the-counter medications. Even in moderation, alcohol can speed up the progress of HCV and reduce the effectiveness of treatments.

How is it treated?

The U.S. Food and Drug Administration (FDA) currently has approved 5 drugs for the treatment of hepatitis C, although HCV is not treated unless it becomes chronic. Treatment is intended to remove the virus entirely from the blood, as fast as possible, to reduce the risk of cirrhosis and liver cancer developing.

Prior to 2011, medications such as ribavirin, an antiviral medication, combined with pegylated interferon alfa (PIA) were most common. Before combining these 2 medications, interferon alpha was the first medication available. It was used alone and later with ribavirin, although it is rarely used anymore. Women should avoid getting pregnant during and for 6 months after treatment with ribavirin since the drug is known to cause birth defects. The treatment program is administered for 24 to 48 weeks.

In 2011, 2 new medications, telaprevir and boceprevir, were approved by the FDA. These drugs are called protease inhibitors because of the way they react to stop the virus. It is recommended that either telaprevir or boceprevir be used in a 3-drug combination with both PIA and ribavirin. However, the 2 protease inhibitors are not useful when used alone or when used together.

Treatment of HCV is more than 90% effective in most people by removing the virus completely from the blood. However, even if the treatment process does not completely remove the virus, it will still reduce the chance of severe liver disease developing. If your HCV has caused cirrhosis or liver cancer, you may be a candidate for a liver transplant.

For more information on HCV, visit the Hepatitis Foundation International Web site at <http://www.hepfi.org>.

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7 Century Drive, Suite 302
Parsippany, NJ 07054-4609

