

# **The Chronicle**

A Paterson Counseling Center Newsletter

#### **Special points of interest:**

- PCC Medical Staff Specilizes In Recognizing Auto Immune Risk Factors
- PCC Coordinates Treatment Opportunities With Local Healthcare Providers
- PCC Physicians Are Board Certified
- PCC Has A Network of Psychosocial Professionals at their disposal to assist you in your recovery

## **Hepatitis C Symptoms**

About 75% of people have no symptoms when they first acquire hepatitis C viral infection. The remaining 25% may complain of fatigue, loss of appetite, muscle aches or fever. Yellowing of the skin or eyes (jaundice) is rare at this early stage of infection. Over time, the liver in people with chronic infection may begin to experience the effects of the persistent inflammation caused by the immune reaction to the virus. Blood tests may show elevated levels of liver enzymes, a sign of liver damage, which is often the first suggestion that the infection may be present. Patients may become easily fatigued or complain of nonspecific symptoms.

As cirrhosis develops, symptoms increase and may include:

- weakness.
- loss of appetite,
- weight loss,
- breast enlargement in men.
- a rash on the palms,
- difficulty with the clotting of blood, and
- spider-like blood vessels on the skin.

HCV is one of several viruses that cause hepatitis (inflammation of the liver). Up to 85% of individuals who are initially (acutely) infected with HCV will fail to eliminate the virus and will become chronically infected.

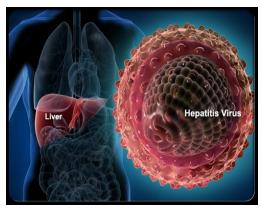
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HCV is spread most commonly through inadvertent exposure to infected blood. Intravenous drug abuse is the most common mode of transmission. The risk of acquiring HCV through sexual contact is low.

Generally, patients do not develop symptoms of chronic infection with HCV until they have extensive scarring of the liver (cirrhosis). Some individuals, however, may have fatigue and other non-specific symptoms in the absence of cirrhosis. A minority of patients with HCV have symptoms from organs outside of the liver.



In the U.S., Infection with HCV is the most common cause of chronic hepatitis and the most common reason for liver transplantation.

HCV is diagnosed by determining levels in the blood of antibodies to the virus and then

### **Hepatitis C Continued**

confirmed with other tests for viral RNA. The amount of viral RNA in the blood (viral load) does not correlate with the severity of the disease but can be used to track the response to treatment.

A liver biopsy may be used to assess the amount of liver damage (liver cell injury and scarring), which can be important in planning treatment.

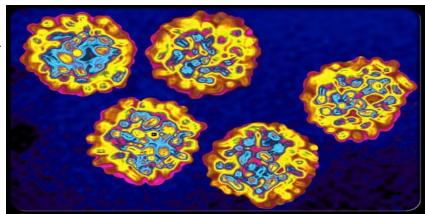
Considerable progress has been made in the treatment of HCV, although response rates remain imperfect, approximately 50%-60% for genotype 1. Combined therapy with pegylated interferon and ribavirin is the standard treatment regimen.

Treatment results in reduced inflammation and scarring of the liver in most sustained responders and also occasionally (and to a much lesser extent) in those who relapse or do not respond.

#### What is hepatitis C infection?

Hepatitis C infection is an infection of the liver caused by the hepatitis C virus (HCV). It is difficult for the human immune system to eliminate HCV from the body, and infection with HCV usually becomes chronic. Over

decades, chronic infection with HCV damages the liver and can cause liver failure. In the U.S., the number of new cases of HCV infection has declined from a peak of 200,000 annually to about 17,000 in 2007. When the virus first enters the body, however, there usually are no symptoms, so these numbers are estimates. Up to 85% of newly-infected people fail to eliminate the virus and become chronically infected. In the U.S., more than three million people are chronically infected with



HCV. Infection is most commonly detected among people who are 40 to 60 years of age, reflecting the high rates of infection in the 1970s and 1980s. There are 8,000 to 10,000 deaths each year in the U.S. related to HCV infection. HCV infection is the leading cause of liver transplantation in the U.S and is a risk factor for liver cancer.

### What is the nature (biology) of the hepatitis C virus?

'Hepatitis' means inflammation of the liver. HCV is one of several viruses that can cause hepatitis. It is unrelated to the other common hepatitis viruses (for example, hepatitis A or hepatitis B). HCV is a member of the Flaviviridae family of viruses. Other members of this family of viruses include those that cause yellow fever and dengue.

Viruses belonging to this family all have ribonucleic acid (RNA) as their genetic material. All hepatitis C viruses are made up of an outer coat (envelope) and contain enzymes and proteins that allow the virus to reproduce within the cells of the body, in particular, the cells of the liver. Although this basic structure is common to all hepatitis C viruses, there are at least six distinctly different strains of the virus which have different genetic profiles (genotypes). In the U. S., genotype 1 is the most common form of HCV. Even within a single genotype there may be some variations (genotype 1a and 1b, for example). Genotyping is important to guide treatment because some viral genotypes respond better to therapy than others. The genetic diversity of HCV is one reason that it has been difficult to develop an effective vaccine since the vaccine must protect against all genotypes.