

The
Pulse

Hepatitis C (HCV)

The hepatitis C virus (HCV) is a blood-borne, infectious disease which affects the liver. It is often referred to as the silent epidemic as millions of Americans have the condition, but are not aware. Decades can pass after the initial infection before any symptoms are experienced. Over time, HCV infection can lead to liver cancer, liver failure or cirrhosis (irreversible and potentially fatal scarring of the liver).

Risk Factors

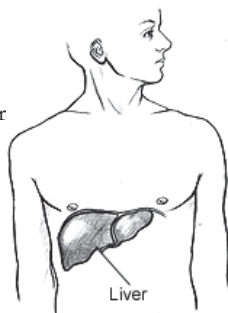
HCV is primarily spread through contact with infected blood and/or blood products. The most common and recognized risk factors for acquiring Hepatitis C are:

- Blood transfusion or organ transplant (before 1992)
- Injection drug use
- Intranasal cocaine use
- Tattooing & body piercings
- Perinatal transmission (infants born to a HCV infected mother)
- Sexual contact (increased risk with multiple partners)
- Hemodialysis treatment for kidney failure

Symptoms

Many people with HCV experience no signs or symptoms of liver disease during its earliest stages. If symptoms are present, they are usually mild, nonspecific, and intermittent. According to the Mayo Clinic, the most common symptoms include:

- Fatigue
- Muscle and joint pains
- Tenderness in the area of your liver
- Lack of appetite
- Nausea and vomiting
- Persistent or recurring yellowing of your skin and eyes (jaundice)
- Low-grade fever



Diagnosis

A blood test can determine whether you have HCV. If test results indicate the presence of HCV, your doctor may measure the quantity of the virus in your blood (viral load) and evaluate the genetic makeup of the virus (genotype). There are six known HCV genotypes – genotypes 1 through 6. Knowing which genotype you have will aid your doctor in determining your best course of treatment.

Your doctor may also recommend a liver biopsy, a procedure in which a small sample of liver tissue is removed for microscopic analysis. Although a biopsy isn't necessary to confirm a diagnosis of HCV, it can help determine the severity of the disease and guide treatment decisions.

Treatment

The National Institutes of Health (NIH) only recommends treatment for HCV if you have:

- A positive test result indicating HCV circulating in your bloodstream
- A biopsy that indicates significant liver damage

- Elevated levels of a liver enzyme called alanine aminotransferase (ALT) in your blood

The standard of care for HCV treatment is weekly injections (for either a 24 or 48 week treatment) of a drug called pegylated interferon alfa combined with twice-daily oral doses of ribavirin (Rebetol) – a broad-spectrum antiviral agent. Combined interferon and ribavirin treatment clears HCV infection in up to half of people with genotype 1 – the most common genotype found in the U.S. – and in up to 80 percent of those with genotypes 2 and 3. Side effects of interferon and ribavirin treatment can be severe and not all patients are able to tolerate a full 24/48 week treatment (most common side effects are severe flu-like symptoms, extreme fatigue, skin irritations and anemia). Liver transplantation is also recognized as the best treatment for people with end-stage liver disease (liver has irreversible damage and complete liver failure is inevitable).

Charlottesville Medical Research in conjunction with Daniel Pambianco, M.D., F.A.C.G. has conducted four Hepatitis C studies with approximately 30 patients.

#1 indication for liver transplant is Hepatitis C

4.1 MILLION

Americans are estimated to be infected with Hepatitis C

10,000-12,000

Hepatitis C related deaths occur each year in the United States

(Source: National Institutes of Health)

Charlottesville Medical Research Current and Future Research Studies

- Osteoporosis

