



# CIRRHOSIS >>>

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**What is Cirrhosis?** Cirrhosis is a condition in which normal healthy liver cells are damaged and replaced by scar tissue. This reduces the healthy cells remaining to perform its many important functions. A damaged liver can widespread disrupted of many body functions.

**Why the liver is so important:** The liver is the largest organ in your body. It is positioned under the ribs on your right side. It weights three pounds and is vital to the health of your body for many different reasons. Most people don't realize that most of the blood that leaves the stomach and intestine must pass through the liver to enable it to perform its many vital functions.

## **The Liver:**

- detoxifies and neutralizes poisonous substances and chemicals in drugs, alcohol, pollutants, aerosol sprays, etc;
- produces immune factors to resist infection;
- filters out germs and bacteria from the blood;
- controls the production and excretion of cholesterol;
- produces bile to help the body absorb fats and fat soluble vitamins;
- regulates blood clotting;
- stores sugars, vitamins, and minerals;
- produces quick energy;
- manufactures new body proteins.

Many things can cause cirrhosis, including various diseases such as hemochromatosis, Wilson's disease, alpha-1 antitrypsin deficiency, autoimmune hepatitis, and biliary atresia. A common cause of cirrhosis is the excessive intake of alcohol. Some people have a severe reaction to certain drugs and this can also cause cirrhosis.

Hepatitis B (HBV) and hepatitis C (HVC) are forms of viral hepatitis that can cause inflammation of the liver leading to cirrhosis. HBV and HVC can go undiagnosed for long periods of time because the liver is a non-complaining organ. Blood tests that identify elevated liver enzymes are usually the first indication of a problem.

Continued attack by the hepatitis virus increases the cirrhosis. This causes the filtering process to slow down, allowing the toxins to remain in the blood stream. These toxins affect the brain causing mental confusion (encephalopathy). The buildup of toxins dulls an individual's mental abilities, sometimes changing their personalities. Because the liver's filtering process is slowing down, its ability to process medication is also affected. The liver does not remove drugs from the blood at the usual rate, so the drugs act longer than expected, and build up in the body. Report any reaction you may get to your doctor and discuss any other medication you may take.

Another serious result of cirrhosis is portal hypertension. Normally, blood from the intestines is pumped through the portal vein to the liver. Since the blood flow is slowed down by cirrhosis that constricts the blood flow in the portal vein, these blood vessels, under pressure, expand and become greatly enlarged (called "varices" or "varicose veins") causing a thinning of their walls. As the cirrhosis increases, so does the pressure in these vessels. If they burst, there will be serious bleeding in the esophagus or the stomach with vomiting of blood and black stools

Symptoms of cirrhosis include:

- fatigue (often the first and only sign)
- loss of appetite
- nausea and vomiting (accompanied by weight loss)
- enlargement of the liver
- itching (caused by a buildup of bile products in the liver)
- jaundice (yellowing of the skin and the whites of the eyes)
- formation of gallstones (because of a lack of bile in the gallbladder)
- accumulation of water in the abdomen (called “ascites”)
- accumulation of water in the legs (called “edema”)
- bruising or bleeding easily

Currently, there is no cure for cirrhosis, however, doctors can delay the progress, minimize cell damage, and reduce the complications of the disease. One example is the use of a drug known as a beta blocker, to reduce portal hypertension. Some doctors prescribe diuretics to remove excess fluid that has accumulated in the ankles or the abdomen. Reducing salt in the diet can also be helpful.

If a person has cirrhosis as a result of hepatitis B or C, the doctor may administer antiviral drugs to reduce liver cell injury. Currently, the only FDA-approved drug for chronic hepatitis B or C is an “antiviral” drug called interferon alfa-2b. This treatment is given by injection and may have a number of side effects such as flu-like symptoms, headaches, and nausea.

Patients with cirrhosis often lead full, healthy lives for many years. Most of the side effects of the disease are treatable. Despite damage to the liver, the liver can still perform some of its functions. Research has recently discovered some promising new treatments which are being tested in clinical studies. A growing number of scientific investigators are conducting liver research, providing hope for new breakthroughs in treatment and cures for hepatitis and more than 100 known liver diseases.

Anyone who is affected by a liver disease knows how hard it is to cope with the medical, financial, and emotional problems. The Hepatitis Foundation International understands the need for education and prevention, but we also understand the vital importance of research. There is so much more to discover about hepatitis, cirrhosis, and other liver diseases. We thank you for your support and confidence in our efforts.