

Cirrhosis of the liver: Causes, symptoms and treatment

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Cirrhosis of the liver poses a significant health challenge worldwide.



With no known cure, it requires comprehensive management to slow liver damage, alleviate symptoms and prevent potential complications.

Cirrhosis is characterized by irreversible scarring of the liver. This article will explore its causes, symptoms and treatments and will look at the day-to-day realities of living with this disease.

What is cirrhosis of the liver?

Cirrhosis is a late-stage consequence of liver disease, characterized by the development of extensive scar tissue in the liver, according to the <u>Cleveland Clinic</u>. In the initial stages, individuals may not have noticeable symptoms. As the condition progresses, however, symptoms may become apparent.

Alcoholic <u>cirrhosis</u> is an advanced stage of alcoholic liver disease that leads to liver stiffness, swelling and impaired function, according to Stanford Medicine.

In contrast, <u>nonalcoholic cirrhosis</u> is more commonly called Nonalcoholic Fatty Liver Disease (NAFLD). It occurs when fat accumulates in the liver, potentially leading to liver dysfunction and injury over time, according to <u>Johns Hopkins Medicine</u>.

It's important to note that <u>excessive alcohol consumption</u> can also cause fat to build up in the liver, but that condition is distinct from <u>fatty liver disease</u>. Health care providers point to two types of fatty liver disease: nonalcoholic fatty liver disease (NAFLD), where fat is present without liver damage, and nonalcoholic steatohepatitis (NASH), which is characterized by liver fat, inflammation and cell damage.

An estimated 10% to 20% of Americans have NAFLD, while about 2% to 5% have NASH, Hopkins Medicine says. Treatment for cirrhosis



depends on the underlying cause and the extent of liver damage. In cases of liver failure, liver transplantation may be an option.

What causes cirrhosis of the liver?

"Cirrhosis is usually a result of liver damage from conditions such as hepatitis B or C, or chronic alcohol use," <u>Dr. Sumera Ilyas</u>, a gastroenterologist, internist and transplant hepatologist at the Mayo Clinic, says in a <u>video discussing cirrhosis</u>. She goes on to add that the "damage from cirrhosis typically cannot be undone."

Various diseases and conditions can also contribute to the development of cirrhosis, according to the Mayo Clinic. They include:

- Prolonged and excessive alcohol consumption
- Ongoing viral hepatitis (hepatitis B, C and D)
- Nonalcoholic fatty liver disease
- Hemochromatosis, a condition that causes iron to build up in the body
- Autoimmune hepatitis
- Primary biliary cholangitis
- Primary sclerosing cholangitis
- Wilson's disease
- Cystic fibrosis
- Alpha-1 antitrypsin deficiency
- Biliary atresia
- Inherited disorders of sugar metabolism, such as galactosemia or glycogen storage disease
- Alagille syndrome (a genetic digestive disorder)
- Infections, including syphilis or brucellosis
- Certain medications, such as methotrexate or isoniazid

Experts say the precise reasons behind the accumulation of fat in the



liver for some individuals and the development of inflammation leading to NASH cirrhosis remain uncertain. Likewise, the <u>Mayo Clinic</u> suggests that there is limited understanding of why certain fatty liver conditions progress to cirrhosis while others do not.

Both NAFLD and NASH cirrhosis are linked to the following factors:

- Overweight or obesity
- Insulin resistance
- High blood sugar (hyperglycemia)
- High levels of fats, particularly triglycerides, in the blood

Cirrhosis of the liver symptoms

The <u>U.S. National Institute of Diabetes and Digestive and Kidney</u>
<u>Diseases (NIDDK)</u> warns that signs or symptoms associated with cirrhosis may not be apparent until the liver sustains significant damage. Individuals may not experience any noticeable indications in the early stages of cirrhosis.

However, as the condition progresses, several symptoms may appear, including:

- Feelings of fatigue or weakness
- Poor appetite
- Unintentional weight loss
- Nausea
- Vomiting
- Mild discomfort or pain in the upper right side of the abdomen

As liver function deteriorates further, additional symptoms may arise, such as:



- Easy bruising and bleeding
- Confusion
- Difficulty in thinking
- Memory loss
- Personality changes
- Sleep disorders
- Swelling in the lower legs, ankles or feet (known as edema)
- Abdominal bloating due to fluid buildup (known as ascites)
- Intense itching of the skin
- Dark urine color
- Yellowish tint in the whites of the eyes and skin, called jaundice

Cirrhosis treatment

Early intervention is crucial to minimize liver damage, the <u>Mayo Clinic</u> states. Treatment options depend on the underlying cause of damage and may include:

- Alcohol dependency treatment: Individuals with cirrhosis due to excessive alcohol use should stop drinking entirely. If this is challenging, health care providers may recommend specialized programs to address alcohol addiction.
- Weight management: For individuals with cirrhosis caused by nonalcoholic fatty liver disease, adopting a weight-loss regimen and controlling blood sugar levels can improve health outcomes.
- Medications for hepatitis control: These can help limit further liver cell damage caused by hepatitis B or C, by targeting and treating these viral infections.
- Medications for managing cirrhosis causes and symptoms: Certain medications can slow the progression of particular types of liver cirrhosis, including early-diagnosed primary biliary cholangitis.



Cirrhosis of the liver life expectancy

The prediction of life expectancy with cirrhosis is typically based on several variables, according to <u>MedicineNet</u>:

- **Percentage of cirrhosis:** The extent of liver damage is a significant factor.
- **Responsiveness to treatment:** The effectiveness of treatment in managing the underlying cause of cirrhosis and slowing disease progression plays a role in life expectancy.
- **Degree of the liver reserve:** The liver's remaining functional capacity or reserve is considered in estimating life expectancy.
- **Age:** Older individuals may have additional health concerns and reduced resilience.
- **Underlying medical conditions:** Other <u>medical conditions</u> can affect overall prognosis and life expectancy.

Further, cirrhosis is often classified into three types based on the <u>Child-Pugh score</u>, which helps evaluate the risk of premature death based on considerations such as abdominal swelling and bilirubin levels:

- Class A: Life expectancy is 15 to 20 years.
- Class B: Individuals maintain a relatively good level of health, with a life expectancy of 6 to 10 years, allowing them to explore treatment options like liver transplantation.
- Class C: The prognosis is poorest for these folks, ranging from one to three years.

Living with cirrhosis

Cirrhosis can present significant challenges and affect various aspects of day-to-day life. A 2020 article in the <u>Journal of Clinical Nursing</u> provides insights into the living experience of individuals with cirrhosis.



- **Physical symptoms:** These may include fatigue, weakness, loss of appetite, nausea, abdominal discomfort, itching and swelling in the legs and abdomen.
- Emotional and psychological impacts: Living with cirrhosis can bring psychological challenges. Anxiety, depression, stress and frustration are common. Coping with the uncertainty of the disease, potential complications and the impact on quality of life can be emotionally demanding.
- **Diet and lifestyle modifications:** People with cirrhosis often need to change their eating habits and lifestyle significantly. These changes may involve adhering to a low-sodium diet, limiting alcohol consumption, as well as managing weight and blood sugar.
- **Treatment management:** This may involve taking multiple medications, undergoing regular medical check-ups, and adhering to treatment plans prescribed by health care providers.
- **Support systems:** The study emphasizes the importance of social support for individuals with cirrhosis.
- Uncertainty and planning for the future: Living with cirrhosis involves uncertainties about disease progression, potential complications and the need for liver transplantation.

The experience of living with cirrhosis is highly individual, and the impact can vary. Individuals with cirrhosis must work closely with <u>health</u> <u>care providers</u>, engage in self-care practices, seek emotional support and actively participate in their treatment and management plans.

Cirrhosis of the liver is a serious condition characterized by irreversible scarring and damage to the <u>liver</u>. While it has no cure, <u>treatment options</u> aim to slow <u>liver damage</u>, manage symptoms and prevent complications.

Understanding the causes, recognizing early symptoms, seeking timely medical intervention and making necessary lifestyle changes can help



individuals with cirrhosis improve their quality of life and potentially prolong their lives.

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