

## Get the facts so you can prevent or slow liver damage.

The liver carries out many important jobs for the body. It processes what you eat and drink into energy and nutrients your body can use. The liver also removes harmful substances from your blood.

The liver may be damaged by diseases that continue for a long period of time. As the liver is injured repeatedly, its healing response produces scar tissue. **Cirrhosis** is the term for advanced scarring of the liver. As cirrhosis progresses, more and more scar tissue forms, making it difficult for the liver to do its job.<sup>3</sup>



One out of every 10 Americans is affected by liver disease. However, it's estimated that number could be much higher as many cases of liver disease are undiagnosed.



### **CAUSES OF CIRRHOSIS<sup>3</sup>**

- Alcohol
- Hepatitis B, C and D
- Nonalcoholic steatohepatitis (NASH)
- Liver diseases caused by an abnormality in the immune system, such as primary sclerosing cholangitis (PSC), primary biliary cirrhosis (PBC) and autoimmune hepatitis
- Genetic diseases, such as Wilson's disease, hemochromatosis, glycogen storage diseases and alpha-1 antitrypsin deficiency



### **TYPES OF CIRRHOSIS<sup>4</sup>**

• **Compensated:** the liver is heavily scarred but can still perform its job

• Decompensated: the liver is severely scarred and unable to do its job properly, this is considered "advanced" cirrhosis



### **TREATING CIRRHOSIS<sup>5</sup>**

Treatment options for cirrhosis vary depending on the cause and the level of liver damage. **Goals of treatment include:** 

- Prevent further liver damage
- Protect remaining healthy tissue
- Treat symptoms of cirrhosis
- Treat complications of high blood pressure
- Reduce risk of liver cancer
- Detect liver cancer at an early, treatable stage
- Prevent or delay the need for a liver transplant

## **Monitoring Cirrhosis**

If you're living with a liver disease, your doctor will monitor you for evidence of cirrhosis. If you have cirrhosis, your doctor may use a scoring system to assess its severity and stage of progression.

One such tool is the **Child-Turcotte-Pugh Score**, which is named after the physicians who developed it, and assigns points for:<sup>6</sup>

- Levels of bilirubin and albumin in the blood
- How efficiently the body is able to clot blood
- Build-up of fluid in the abdomen (stomach)
- Impairment of mental function (such as confusion, cloudy or foggy brain, and disorientation)

### **CHILD-TURCOTTE-PUGH SCORE**

Assigns a score of A, B, and C

A score = compensated cirrhosis	de	<b>B and C scores</b> = decompensated cirrhosis with progressive worsening				
А		В		с		



The **MELD Score** is used to tell how urgently a liver transplant is needed.<sup>4</sup> The score is based on the results of blood tests that measure:

- Kidney function
- Levels of bilirubin in the blood
- How efficiently the body is able to clot blood
- How efficiently the body is able to regulate fluid

Additional tools can be used to confirm a diagnosis of cirrhosis and evaluate progression<sup>7</sup>, including:

- Imaging tests such as a fibroscan, ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI)
- Liver biopsy (less common method)

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### **MELD SCORE**

MELD stands for **Model Liver for End-stage Liver Disease,** and scores range from 6 to 40. A higher MELD score indicates a more urgent need for liver transplantation.

## What can I do if I have cirrhosis?

Depending on the severity of your condition, your doctor may suggest certain **lifestyle changes** to reduce further liver damage.<sup>1</sup>



Eat a healthy diet and exercise regularly



Limit sodium in your diet (table salt and other forms of sodium)



Stop drinking alcohol



Discuss with your doctor the safety of all medications, vitamins and supplements you take

### **QUESTIONS TO ASK YOUR DOCTOR:**

### Talk with your doctor if you have questions about cirrhosis.

- What is the severity of my cirrhosis? What is my Child-Turcotte-Pugh score and MELD score?
- What steps should I take to prevent further progression of cirrhosis?
- How will you assess/monitor my liver health moving forward?
- What lifestyle changes and alterations to my diet should I make?
- What potential complications or symptoms should I expect?
- Do any of my current medications cause liver damage? Am I receiving the correct dose?
- What vaccinations should I consider to avoid further liver damage?
- What routine labs and scans should I have to assess my risk of developing liver cancer?

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