Cirrhosis of the Liver
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What is cirrhosis of the liver?
Cirrhosis is ongoing scarring damage of the liver. This leads to a blockage of blood flow through the liver and decreases (lowers) the ability of your liver to work properly.

There are many causes of cirrhosis:
- Alcohol
- Viral hepatitis
- Fatty liver
- Primary biliary cirrhosis
- Auto-immune hepatitis
- Hemochromatosis
- Wilson’s disease
- Primary sclerosing cholangitis
- Budd–Chiari syndrome
- Medication-induced
Where is my liver?
Your liver is the largest internal organ in your body. It is located in the upper right section of your abdomen, just under your rib cage.

What does my liver do?
Normally, your liver is a complex chemical factory that works 24 hours a day. The blood returning to your heart from the intestinal tract passes through your liver. This means everything absorbed into your bloodstream from the food you eat passes through your liver. Your liver is essential to life. You simply cannot live without it.
Your liver helps you by:

• Breaking down harmful things in your body (such as alcohol, drugs, and other toxic substances).
• Converting most medicines into forms your body can use.
• Storing vitamins, fats, carbohydrates, and other nutrients that come from the food you eat. For example, 80% of your cholesterol is made by your liver.
• Making essential (important) proteins that:
  › Help fight infection and bacteria.
  › Carry nutrients and other substances throughout your body.
  › Clot blood and regulate your hormones.

What are the major causes of liver cirrhosis?

• Fatty liver caused by obesity and diabetes.
• Viral infections like hepatitis B and C.
• Inherited diseases such as Wilson’s disease (copper overload), hemochromatosis (iron overload) and alpha-1-antitrypsin deficiency.
• Scarring of bile ducts from diseases such as primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC).
• Toxic hepatitis caused by alcohol, drugs, and toxins.
What are some symptoms of cirrhosis?
In the beginning, you may not have any symptoms. When your liver damage is more than 75%, then you may notice yellow eyes and skin (jaundice), fluid retention (bloating or swelling) in the abdomen (ascites), confusion or difficulty thinking, bleeding from enlarged blood vessels in the esophagus (varices), and atrophy (loss of muscle mass).

What other serious problems may happen?
As liver function decreases, fewer proteins, such as albumin, are made causing fluid build-up in your legs (edema) or abdomen (ascites). You may bleed and bruise easily because of a decrease in blood clotting factors. Some people may even have intense itching and get yellow jaundice.
Because your liver can’t get rid of toxins well anymore, this leads to toxin build-up in your blood. This can impair (weaken) thinking and may mean your brain will have trouble working properly (encephalopathy).
You may have fatigue, loss of appetite, and nausea.
Early signs of toxin build-up in the brain:
› Neglect of personal appearance.
› Unresponsiveness.
› Forgetfulness.
› Concentration problems
› Changes in sleeping habits.
› Medicines may not be properly filtered which can result in an increased sensitivity to them and their side effects (Medicines may have a stronger effect on you as your liver does not break medicines down as quickly as a healthy liver would).

How is cirrhosis diagnosed?
• Physical exam for symptoms/signs of liver disease.
• Laboratory investigations (lab tests) for liver enzymes and liver function tests such as low platelet count.
• Analyzing (looking at) the ascites by paracentesis (taking fluid from the belly with a needle).
• Checking for esophageal varices by scoping (upper endoscopy).
• Imaging – looking for a bumpy liver and enlarged spleen: may include ultrasound, CT scan (computerized axial tomography), MRI (magnetic resonance imaging).
• Liver biopsy or fibroscan to look for scarring in the liver.
How is cirrhosis treated?

Treatment strategies include:

- Stopping or delaying the disease progression (keeping cirrhosis from getting worse)
- Minimizing liver cell damage
- Reducing complications

Treatment options:

Whether your cirrhosis is due to alcohol or any other cause, you must stop drinking any amount of alcohol to keep your cirrhosis from getting worse.

You need to maintain a healthy weight with diet and exercise (if you have fatty liver).

If your cirrhosis is caused by viral hepatitis, it may be treated in the early stages with anti-viral drugs to reduce liver cell injury.
Medications can be given to control your symptoms:

- Medications called “diuretics” are used to get rid of too much salt and fluid. This will help to prevent edema and ascites from coming back.

- Special laxatives, such as lactulose, may be given to help bind to toxins and speed up getting rid of these from your intestines.

- Medications, such as beta blockers, may be prescribed to lower portal hypertension (high blood pressure) and prevent bleeding from varices in the esophagus.

- Avoid over-the-counter medications and herbal supplements until they are reviewed by your specialist.

Am I at risk of getting liver cancer?
People with liver cirrhosis are at risk of getting liver cancer or hepatocellular carcinoma (HCC). The risks increase with hemochromatosis, hepatitis B, hepatitis C, older age, in males, and with alcohol use.

What are the symptoms of HCC?
There are often not any symptoms in the earlier stages. If you have liver cirrhosis, we usually check your liver at least once a year or every 6 months by ultrasound and twice a year with blood tests.
What is the treatment for HCC?
There are a few options for treating HCC and the treatments are changing quickly. You need to know that the number and size of liver lesions, extension to the blood vessels, as well as your stage of liver cirrhosis all have an impact on outcomes.

Can I prevent HCC?
The best way to prevent HCC is to protect yourself from hepatitis B and C. If you already have hepatitis B and/or C, it is important to keep your liver healthy. Here are a few suggestions:

› Get vaccinated against hepatitis A and B.
› Learn how to prevent hepatitis C: Avoid using alcohol, drugs, and toxins that may damage your liver.
› Maintain a healthy weight.

Where can I get more information?
Ask your health care provider first and check the website of the Canadian Liver Foundation at:

› www.liver.ca

If you have any questions, please ask.
We are here to help you.
Looking for more health information?
Contact your local public library for books, videos, magazines, and other resources.
For more information go to http://library.novascotia.ca

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Revised by: Timothy Mombourquette, NP; Carla Burgess, NP, Hepatology
Reviewed by: Geri Hirsch, NP; Kevork Peltekian, MD
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