Non-Alcoholic Fatty Liver Disease

Information for patients and families

Read this information to learn:

• what non-alcoholic fatty liver disease is
• what causes it
• how it’s treated
• how to prevent it
• where you can find more information
What is fatty liver disease?

Your liver is your body’s fat factory. It breaks down fat from the food you eat. When the food you eat has more fat and sugars than your body needs, your liver stores extra fat. Other parts of your body also store the fat.

A person is at risk of fatty liver disease when fat build up is more than 5 to 10% in the liver. Fatty liver also occurs in someone who drinks alcohol heavily. If drinking alcohol is not the cause of the problem, it’s called **Non-Alcoholic Fatty Liver Disease (NAFLD)**.

NAFLD can range from simple fat with no or mild damage to the liver to severe damage to the liver. The serious form of NAFLD is called **Non-Alcoholic Steatohepatitis (NASH)** which needs to be confirmed by a liver biopsy.

Fat builds up in the liver
What is NASH?

NASH is the serious form of NAFLD. When you have NASH, the fat in liver cells turns on an immune response, which triggers inflammation. This means there is increased redness and swelling. Over time, inflammation will cause ongoing damage to the liver and the damage will lead to the severe form of disease. About 3 to 5 people out of 100 with NAFLD will develop NASH, even if they don’t drink alcohol or drink very little.

Once you have NASH, about 1 out of 5 can develop severe scarring in their liver (cirrhosis). For about 1 out of 10 people, having NASH may lead to liver failure and death. Some people may need a liver transplant.

What causes NAFLD?

The most common cause of NAFLD in Canada is being obese or overweight. About 3 out of 4 people who are obese are at risk of developing NAFLD. About 1 out of every 5 people who are obese is at risk of developing NASH. People who are not overweight can also have fatty liver.

People may also have a higher risk of developing NAFLD disease if they:

• have diabetes
• have insulin resistance
• have high cholesterol or triglycerides
• have high blood pressure
• had bypass surgery to treat obesity
• lose weight too fast or the body is starved
  This causes their body to burn muscle for energy, which increases fat in their liver.

Other less common causes of fatty liver disease include taking certain drugs (like steroids), and a family history of fatty liver disease.
Can children get fatty liver disease?
Yes. If a child is obese, they have a higher risk of getting fatty liver disease. Visiting a doctor regularly is important because doctors have found fatty liver disease in children as young as 4 years old.

In Canada, about 1 out of every 10 children is obese. Up to half of these children have a higher risk of getting fatty liver disease.

What are the symptoms of fatty liver?
There are no major symptoms. If your liver becomes severely scarred, you may feel unwell, tired or have discomfort in the right side of your upper body.

Serious symptoms happen when the liver starts to fail and stops working normally, such as jaundice (yellowing of the skin), ascites (fluid in belly), and esophageal varices (dilated veins in esophagus).

How can I find out if I have fatty liver disease?
A simple blood test may show if your liver is mildly inflamed. An ultrasound of your liver can show a fatty liver or an enlarged (swollen) liver.

The only test that will show for sure that you have a fatty liver is a liver biopsy. During a biopsy, a doctor puts a needle into your liver and takes out tiny samples of liver tissue. The doctor then looks at the samples closely using a microscope.
How is it managed?
If you have fatty liver disease, talk to your doctor about the best way to manage it. If you are overweight, your doctor can talk to you about losing weight slowly and keeping it off.

Living an active lifestyle is the best way to avoid developing fatty liver disease. Regular exercise and eating a variety of healthy foods can also help control high blood pressure, high cholesterol, diabetes and improve overall health. Right now, there are no medications that you can take to treat fatty liver disease.

How can I prevent fatty liver disease?
Some tips to prevent fatty liver disease include:

✓ Stay at a healthy weight. If you are overweight, try to lose weight, but do it slowly.
✓ Avoid gaining weight at your waist. If your waist measures more than 102 centimetres (40 inches) for men or 88 centimeters (35 inches) for women, you have a higher risk of getting fatty liver disease.
✓ Eat foods that are low in saturated fats and high in fibre.
✓ Exercise at least 4 times a week (or 200 minutes per week). Some examples include walking, swimming, gardening and stretching.
✓ Avoid alcohol.

What should I do if I think I have fatty liver?

• Stop drinking alcohol.
• If you need to lose weight, talk with your doctor about how to lose it so you don't gain it back again.
• Get tested for diabetes, high blood pressure, and high cholesterol.
• Get tested for any other causes of liver disease.
Where can I get more information?

**Canadian Liver Foundation**
Website: [www.liver.ca](http://www.liver.ca)

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