

Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD)

Information for patients and families

Read this information to learn:

- What MASLD is
- What causes it
- How it's treated
- How to prevent it
- Where you can find more information



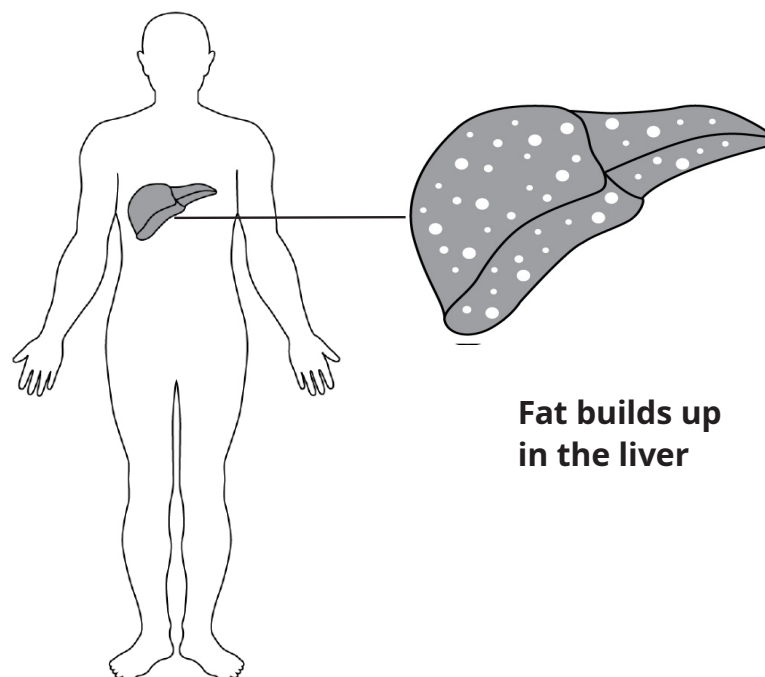
What does the liver do?

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

What is Metabolic Dysfunction-Associated Steatoic Liver Disease (MASLD)?

A person is at risk of fatty liver when fat buildup in the liver is more than 5%. There are 2 main reasons why a person will have a fatty liver—heavy alcohol use, metabolism-related causes, or both. If drinking alcohol is NOT the cause of the problem, it is now called MASLD. The condition used to be called Non-Alcoholic Fatty Liver Disease or NAFLD.

MASLD can range from simple fat with no or mild damage to severe damage to the liver. The serious form of MASLD is called Metabolic dysfunction-associated steatohepatitis (MASH), which needs to be diagnosed with a liver biopsy.



What causes MASLD?

In Canada, MASLD is seen most often in people who carry extra weight, especially if it is around the waist. About 3 out of 4 people who carry extra weight or are obese are at risk of developing MASLD. People who do not carry extra weight can also have fatty liver.

People are more likely to develop MASLD if they have risk factors for heart and metabolic diseases, such as having:

- diabetes, insulin resistance or are prediabetic
- high cholesterol or triglycerides
- high blood pressure
- sleep apnea
- low working thyroid, also known as hypothyroidism
- had bypass surgery to treat obesity

What is Metabolic Dysfunction-Associated Steatohepatitis (MASH)?

MASH is the serious form of MASLD. When you have MASH, the fat in liver cells turns on an immune response, which triggers inflammation or swelling in the liver. Over time, inflammation damages the liver cells and leads to more serious forms of fatty liver disease where the liver struggles to work properly.

- About 1 out of 5 people with MASLD will develop MASH, even if they don't drink alcohol or drink very little.
- Once you have MASH, about 1 out of 5 can develop severe scarring in their liver (cirrhosis).
- For about 1 out of 10 people, having MASH may lead to liver failure and death.
- Some people may need a liver transplant for their severe MASH condition.

What are the symptoms of MASLD?

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 below your ribcage.

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 MASLD or MASH?

A simple blood test may show if your liver is inflamed. An ultrasound of your liver may show approximately how much fat is in your liver.

A FibroScan (a type of ultrasound test) may also show how serious the scar tissue and fat is in the liver.

The only test that will show for sure that you have a MASLD or MASH 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.

Can children get MASLD?

If a child carries extra weight, they have a higher risk of getting fatty liver disease. Visiting your child's health care provider regularly can help diagnose fatty liver disease early.

In Canada, about 3 out of every 10 children is obese. Up to 1 in 5 overweight or obese children may have a higher risk of getting fatty liver disease.

How is MASLD managed?

If you have MASLD, talk to your doctor. Your doctor can talk to you about losing weight slowly and keeping it off. People who have risk factors for heart and metabolic diseases may need medications to help control these diseases.

Living an active lifestyle is the best way to avoid developing MASLD. Regular exercise and eating a variety of healthy foods can also help control the risk factors for MASLD and improve overall health. Right now, there are no medications that you can take to treat MASLD or MASH.

How can I prevent MASLD?

Some tips to prevent MASLD include:

- ✓ Stay at a healthy weight for you. If you carry extra weight, try to lose weight slowly. A good way to know what a healthy weight is for you is to aim for a body mass index (BMI) of 18.5 to 24.9.
- ✓ 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 MASLD.
- ✓ Eat foods that are low in saturated fats and sugar, and high in fibre.
- ✓ Exercise at least 4 times a week (or 150 minutes per week). The best exercises are those that make you sweat and you feel that your heart is beating fast. Some examples include running, swimming, gardening and yoga.
- ✓ Avoid alcohol.
- ✓ Getting some uninterrupted sleep. Most adults need 7 to 9 hours of sleep at night.

What should I do if I think I have MASLD?

- Stop drinking alcohol.
- If you carry extra weight around your waist, talk with your doctor about how to lose it slowly and so you don't gain it back again.
- Get tested for risk factors for MASLD, such as 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

Health Canada, Canada's Food Guide

Website: <https://food-guide.canada.ca/en>



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