

LIVER DISEASE

Fatty Liver Disease: Risk Factors, Symptoms, and How to Reverse It



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[Definition](#)[Symptoms](#)[Cause](#)[Risk factors](#)[Diagnosis](#)[Treatment and reversal](#)

Key takeaways:

- Fatty liver disease is common. It's caused by fat buildup in the liver.
- It's closely related to metabolic syndrome, a collection of health conditions that raise the risk of heart disease and diabetes.
- Fatty liver disease is treatable — and even reversible — if caught early. Losing weight, exercising, and managing other medical conditions are key steps.

Fatty liver disease is a very common condition in the U.S. More than [1 in 3](#) adults and up to 14% of kids in the U.S. have it. But [many people](#) don't know they do.

You might know that alcohol and certain infections, like [hepatitis](#), can harm your liver. But common medical conditions — like high blood pressure and high cholesterol — can also damage it.

The good news is that there's a lot that can be done to prevent or even reverse the disease, if it's caught early. Here's what you need to know about fatty liver disease.

What is fatty liver disease?

Fatty liver disease is exactly what it sounds like — a buildup of fat in your liver that can cause problems.

The technical term for fatty liver disease is [metabolic dysfunction-associated steatotic liver disease](#), or MASLD. You might recognize it by its previous name, nonalcoholic fatty-liver disease, or NAFLD. [Experts](#) recently changed the name to better reflect what causes the condition (more on this below).

Note to the reader: For simplicity, we'll use "fatty liver disease" throughout this article to refer to MASLD.

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Over time, MASLD can cause inflammation in your liver. When this happens, it's called metabolic dysfunction-associated steatohepatitis or MASH — previously known as nonalcoholic steatohepatitis (NASH).

MASH is more advanced than MASLD, and it increases the risk of permanent liver scarring. Both MASLD and MASH can cause serious complications, but the risk is higher with MASH. Fortunately, MASH is less common than MASLD.

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What are the symptoms of fatty liver disease?

Most people with fatty liver disease don't have any symptoms. Occasionally, they may have fatigue or belly discomfort.



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- **Can you reverse fatty liver disease?** The key is to take action before inflammation sets in. Learn more about [reversing fatty liver disease](#).
- **Can you take Tylenol if you have fatty liver disease?** Our experts describe how to safely take Tylenol and [protect your liver](#).
- **What medications cause liver damage?** Read our [comprehensive list](#) of prescription medications, over-the-counter medications, and supplements that can damage your liver.

[Symptoms](#) typically occur only in people who have severe or long-standing [liver disease](#). This can happen when MASLD leads to MASH.

Symptoms of advanced liver disease can include:

- Yellowing of your skin or eyes ([jaundice](#))
- Fatigue and weakness
- Weight loss or loss of appetite
- Pain in the upper-right side of your abdomen
- Fluid buildup in your abdomen ([ascites](#)) or legs ([edema](#))
- Itching
- Confusion

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Keep in mind that many of these symptoms can also occur with other liver problems. They aren't specific to MASH.

What causes fatty liver disease?

Fatty liver disease happens when extra fat builds up in your liver. But experts aren't exactly sure what causes this buildup. It's closely related to [metabolic syndrome](#), a group of health problems that affect how your body processes food and energy (metabolism). These problems include:

- High triglycerides
- Low high-density lipoprotein (HDL) cholesterol
- High blood pressure
- High fasting blood glucose (sugar)
- A larger waist size

These issues point to an underlying problem with the way your body processes sugars and fats. [Chronic inflammation](#) may also play a role.

What risk factors are linked to fatty liver disease?

Not everyone with MASLD has metabolic syndrome, but there's a lot of overlap between the two.

[Risk factors](#) for fatty liver disease include:

- **Excess body weight:** About [75%](#) of people with a [BMI](#) (body mass index) over 25 have MASLD or MASH.
- **Larger waist size:** Similar to BMI, an increased waist circumference [has been linked to MASLD](#).
- **Type 2 diabetes:** At least [50% of people](#) with Type 2 diabetes have fatty liver disease.
- **Hypertension:** Having high blood pressure increases your risk of fatty liver disease by about [50%](#).
- **Cholesterol problems:** [High triglycerides](#) and low [high-density lipoprotein \(HDL or “good”\) cholesterol](#) are also risk factors for developing MASLD.

How is fatty liver disease diagnosed?

The process of diagnosing fatty liver disease can involve a few steps. But the process isn't the same for everyone.

Lab tests

Most people with fatty liver disease don't have symptoms, so it's often discovered through blood tests. If you have risk factors, your primary care doctor might want to check your liver enzymes. Or they might see [elevated liver enzymes](#) — like aspartate aminotransferase (AST) and alanine transaminase (ALT) — on [routine blood tests](#).

Additional lab testing might be recommended to look for other causes of elevated liver enzymes, such as hepatitis.

Imaging

In some cases, noninvasive imaging of your liver — like an ultrasound — can help find the cause of elevated liver enzymes. If the imaging shows fat in your liver, that points to MASLD. But fat can be hard to see with ultrasound, so it doesn't always give a definitive answer.

Biopsy

A [liver biopsy](#) is a procedure that involves removing a small piece of your liver with a needle and looking at it under a microscope. This helps your healthcare team determine if your liver is just fatty (MASLD), or both fatty and inflamed (MASH). Signs of inflammation or fibrosis on the biopsy can help confirm a diagnosis of MASH. A liver biopsy can also rule out other causes of liver damage.

But liver biopsies are invasive, and not everyone needs one.

So what tests do I need?

In many cases, your healthcare team can diagnose fatty liver disease by ruling out other liver conditions. In other words, if you have risk factors for MASLD (like metabolic syndrome) and elevated liver enzymes, they might diagnose you without further testing.

Your healthcare team can guide you through treatment and check your liver enzymes again later. If things aren't improving with treatment, that might be a good time to proceed with further testing.

What is the treatment for fatty liver disease?

Treatment for MASLD involves diet changes, exercise, and managing your other health conditions. If changes are made early — before liver inflammation and scarring occur — [fatty liver can be reversed](#).

Steps that can help reverse or prevent fatty liver disease include:

- [Losing weight](#)
- [Eating a balanced and nutritious diet](#)
- [Exercising regularly](#)
- [Cutting back on alcohol](#)
- Treating other health conditions, such as diabetes and high blood pressure

Because weight loss can help treat or reverse fatty liver disease, researchers are looking into how [weight loss medications](#) can impact your risk or progression of the condition. So far, the [data are promising](#), but these medications aren't currently approved to treat fatty liver disease.

In many cases, your primary care provider can treat fatty liver disease. But you might be referred to a specialist depending on other medical conditions you may have and how advanced your fatty liver disease is. For example:

- A cardiologist can help manage your cholesterol and blood pressure.
- An endocrinologist or nutritionist can help with diabetes and weight management.
- A hepatologist (liver specialist) can help with any ongoing liver issues.

Frequently asked questions

Is fatty liver disease painful? 

Not at first. In its early stages, fatty liver disease usually doesn't cause symptoms. As it progresses, it could cause abdominal discomfort and other symptoms.

How serious is fatty liver disease? 

Do certain types of food contribute to fatty liver disease? 

The bottom line

Fatty liver disease is common and can be dangerous. It doesn't usually cause symptoms, so it's important to know the risk factors. It's closely related to metabolic syndrome, which includes high blood pressure, high blood sugar, and a larger waist size. You can reverse fatty liver disease — and prevent liver damage — with weight loss, regular exercise, and management of other medical conditions.



Why trust our experts?



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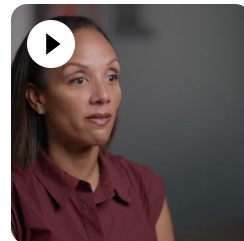
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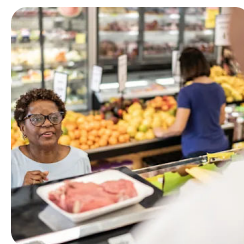
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