



Fatty liver disease (MASLD)

When fat builds up in the liver: what it means and what helps

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Fatty liver is very common and is closely linked to weight, diabetes and cholesterol. Most people never develop serious liver damage, but some do, so simple tests are used to check for scarring. Steady weight loss and regular physical activity are the most effective treatments.

What is it?

Metabolic dysfunction-associated steatotic liver disease (MASLD) is the new name for what used to be called non-alcoholic fatty liver disease (NAFLD). It means there is excess fat in the liver in a person who also has at least one metabolic risk factor, such as excess weight, diabetes, high blood pressure or abnormal cholesterol.

In most people the fat causes little harm. In some, it leads to inflammation (MASH), which over years can cause scarring (fibrosis) and, in a minority, cirrhosis. Heart disease is the commonest cause of serious illness in people with fatty liver, so caring for the heart, blood sugar and blood pressure matters as much as caring for the liver.

Who is at risk?

- Being overweight, especially with fat around the waist
- Type 2 diabetes or prediabetes
- High blood pressure
- High triglycerides or low 'good' (HDL) cholesterol
- Polycystic ovary syndrome, sleep apnoea or an underactive thyroid
- Regular alcohol on top of these risk factors adds to the damage (this combination is called MetALD)

Symptoms

Most people have no symptoms. Fatty liver is usually found by chance on an ultrasound scan or because of a raised liver enzyme (ALT). Some people feel tired or

have a dull ache under the right ribs. Normal liver blood tests do not rule out fatty liver or scarring.

Checking for scarring

The most important question is whether there is scarring, because scarring, not the fat itself, predicts future liver problems.

- FIB-4 score: a calculation from your age, two liver enzymes (ALT and AST) and your platelet count. A low score is reassuring and is usually repeated every one to three years
- If the score is intermediate or high, a FibroScan is the next step. It is a quick, painless scan that measures liver stiffness
- A high stiffness result leads to referral to a liver specialist. Further blood tests or, occasionally, a liver biopsy may be needed

A standard ultrasound shows fat in the liver but cannot reliably measure scarring.

Treatment: lifestyle

There is no 'liver detox'. Weight loss is the most effective treatment, and the benefit grows with the amount lost:

- About 5% of body weight reduces liver fat
- 7 to 10% can settle inflammation (MASH)
- More than 10% can improve scarring in many people
- Eat in a Mediterranean style: vegetables, legumes, wholegrains, fish, olive oil and nuts. Cut sugary drinks (including packaged juices), sweets, large portions of white rice and bread, and fried and processed foods
- Be active for 150 to 300 minutes a week at moderate intensity, such as brisk walking (indoors or in the cooler evening in summer), plus muscle-strengthening exercise twice a week. Activity helps the liver even before weight falls
- Coffee without added sugar or cream is linked in studies with less liver scarring, and two to three cups a day are reasonable if you tolerate them
- Avoid alcohol completely, and stop smoking

Medicines and specialist options

Treating diabetes, blood pressure and cholesterol protects both the heart and the liver. Statins are safe in fatty liver and should not be stopped because of mildly raised liver tests.

- GLP-1-based medicines, such as semaglutide, reduce weight and liver fat and are often chosen for people with diabetes or obesity. In some countries, semaglutide (at the weight-loss dose) is now also approved for MASH with moderate to advanced scarring in people who do not have cirrhosis
- Resmetirom is a newer tablet approved in some countries for MASH with moderate to advanced scarring, in people without cirrhosis. It is prescribed by specialists and its availability varies
- Weight-loss (bariatric) surgery may be considered for people with severe obesity
- Avoid herbal products and 'liver support' supplements; some cause liver injury

These medicines are added to lifestyle change, not used instead of it.

Get urgent medical care if you have

- Yellow eyes or skin
- Vomiting blood or passing black stools
- Swelling of the abdomen or legs
- Confusion or unusual sleepiness
- Weight loss without trying

Common questions

Can fatty liver go away?

Yes. Fat and inflammation can resolve with weight loss and activity, and early scarring can improve.

I am not overweight. Can I still have fatty liver?

Yes. Fatty liver also occurs in people of normal weight, particularly those of Asian background or with fat around the waist. The same advice on diet, activity and checking for diabetes applies.

Do milk thistle or other liver supplements help?

They have not been shown to improve fatty liver, and some herbal products can harm the liver.

This leaflet is general information and does not replace advice from your own doctor. Version 1.0, October 2026. Next review October 2028.

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