HEALTH CONDITION · SUMMARY

Fatty Liver Disease (MASLD)

A build-up of fat inside the liver that is not caused by alcohol. It is very common, usually causes no symptoms, and often improves once metabolic health is restored.

What it is

Fatty liver disease is a build-up of excess fat inside liver cells. When it is not caused by alcohol it is called MASLD, short for metabolic dysfunction-associated steatotic liver disease. This replaced the older term NAFLD in 2023. It sits on a spectrum: fat alone, then fat plus inflammation (MASH), then scarring (fibrosis), and finally cirrhosis.

Symptoms to look out for

Fatty liver usually causes no symptoms and is often found by chance. Advanced liver disease can cause:

- Yellowing of the skin or eyes (jaundice)
- Swelling of the abdomen or legs
- Easy bruising or bleeding

It is often first suspected from mildly abnormal liver blood tests, though these can be normal even when fat is present.

What causes it

There are two main drivers. The body's healthy fat stores are full, and the body is dealing with a diet high in sugar and refined carbohydrate - the liver turns the sugar into fat. Fructose, in sweet foods and sugary drinks, is a particular driver. Physical inactivity and stress contribute. It associates with excess belly fat, prediabetes or type 2 diabetes, raised triglycerides (blood fat) and high blood pressure.

The liver's expression of insulin resistance

Fat in the liver is fat that should not be there. This is called ectopic fat, and it is central to insulin resistance. It is both a result of poor metabolic health and a cause of further problems, which is why it often occurs alongside prediabetes, type 2 diabetes and a large waist. Liver fat reduces quickly with lifestyle improvement, often faster than fat stored elsewhere.

What you can do

- **Food.** Reduce sugar, sugary drinks, refined carbohydrate and ultra-processed food. Build meals with plenty of protein and non-starchy vegetables, with starchy carbohydrate reduced or personalised.
- **Movement.** Both aerobic (e.g. walking, running, cycling) and resistance (muscle building) exercise reduce liver fat, even without much weight change.
- **Alcohol.** Minimising alcohol matters, as it adds directly to liver fat and damage.

Medicines

There is no long-established drug for simple fatty liver, but treatments for the more advanced form (MASH) are emerging. Some GLP-1 and SGLT2 medicines can reduce liver fat and, in some cases, scarring. Vitamin E has evidence in selected people, under specialist guidance.

When to get help

- See your clinician if liver blood tests are abnormal, or if you have risk factors such as type 2 diabetes or a large waist.
- Seek prompt help for jaundice, abdominal swelling or other signs of advanced liver disease.
- Discuss your alcohol intake honestly, as it strongly affects the liver.

This is general information, not medical advice. Always speak to a qualified healthcare professional about your own symptoms and treatment, including before changing any medication.

Summarised from the in-depth article by Dr Campbell Murdoch, GP, UK · healthshelf.org · Reviewed August 2026