

Patient education: Nonalcoholic fatty liver disease (The Basics)

Written by the doctors and editors at UpToDate

What is nonalcoholic fatty liver disease?

Nonalcoholic fatty liver disease, sometimes called NAFLD, is a condition in which fat builds up in the liver. The liver is a big organ in the upper right side of the belly ([figure 1](#)).

There are two types of NAFLD:

- Nonalcoholic fatty liver (also called NAFL) – In NAFL, the liver has fat buildup, but is **not** inflamed
- Nonalcoholic steatohepatitis (also called NASH) – In NASH, the liver has fat buildup and **is** inflamed

This article is mostly about NASH, because that is the condition that can lead to the most problems.

People who drink too much alcohol can get a condition similar to NASH. But NASH is **not** related to drinking too much alcohol.

What causes NASH?

Doctors do not know what causes NASH. They do know that NASH happens more often in some people, such as those who:

- Are overweight
- Have diabetes, which causes blood sugar levels to get too high
- Have high cholesterol
- Take certain medicines

What are the symptoms of NASH?

Most people with NASH have no symptoms.

Your doctor or nurse might suspect that you have NASH from the results of your routine blood tests.

Will I need more tests?

Yes. If your doctor or nurse suspects that you have NASH, you will likely have:

- More blood tests
- An imaging test of the liver, such as an ultrasound, CT, or MRI scan – Imaging tests create pictures of the inside of the body.

Some people need a liver biopsy. During this test, a doctor removes a small sample of tissue from the liver. Then another doctor looks at the sample under a microscope to see if NASH is present. A liver biopsy is the only test that can tell for sure if you have NASH. Your doctor might do this test if they are not sure if you have NASH or to see how much inflammation there is in the liver. If your blood tests and imaging tests are normal you will not need a liver biopsy.

How is NASH treated?

NASH is not typically treated directly. But the condition can get better when other medical conditions that often happen with NASH get treated. For example, losing weight, and controlling high blood sugar and cholesterol can help improve NASH.

With that in mind, your doctor can:

- Help you lose weight, if you are overweight – If your doctor recommends losing weight, they can help you make a plan to do this safely. It's important not to lose weight too quickly. Do not lose more than 3.5 pounds (1.6 kilograms) a week.
- Treat your high blood sugar, if you have high blood sugar
- Treat your high cholesterol, if you have high cholesterol

Making these changes has benefits besides helping with NASH. These changes can also reduce your chances of having a heart attack or stroke. That's important because people with NASH are often also at risk for heart disease and stroke.

If you take a medicine that could be causing NASH, your doctor will stop or change that medicine.

If you have a severe form of NASH but do not also have diabetes or heart disease, your doctor or nurse might suggest that you take [vitamin E](#). A few studies suggest that vitamin E can reduce some of the liver damage that occurs as part of NASH. On the other hand, there are also studies that suggest that high doses of vitamin E increase the risk of death. So do not take vitamin E unless your doctor or nurse recommends it.

Does NASH get worse over time?

NASH might get worse over time. Sometimes it leads to serious scarring of the liver, called "cirrhosis." Cirrhosis can cause different symptoms, such as swelling in the legs, trouble breathing, or feeling tired. If you get cirrhosis, your doctor will talk with you about different possible treatments.

Do I need to follow up with my doctor?

Yes. People who have NASH need to see their doctor for regular check-ups. Your doctor will do follow-up tests on a regular basis. These usually include blood tests.

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Topic 16156 Version 9.0

GRAPHICS

Organs inside the abdomen (belly)

