



# NAFLD/NASH: AM I AT RISK?

## What is NAFLD/NASH?

### Nonalcoholic fatty liver disease (NAFLD)

NAFLD, nonalcoholic fatty liver disease, is a condition where there is too much fat built up in the liver. If left untreated, it can lead to serious liver problems.

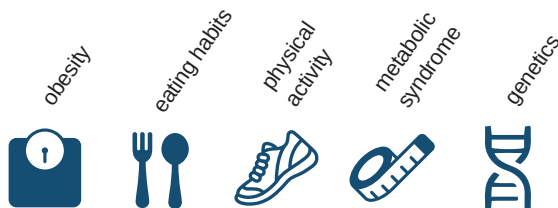
### Nonalcoholic steatohepatitis (NASH)

NASH is caused when that extra fat turns into inflammation (swelling in the liver) and fibrosis (scarring) of the liver. If severe enough, that can lead to cirrhosis or liver cancer, potentially requiring a liver transplant.

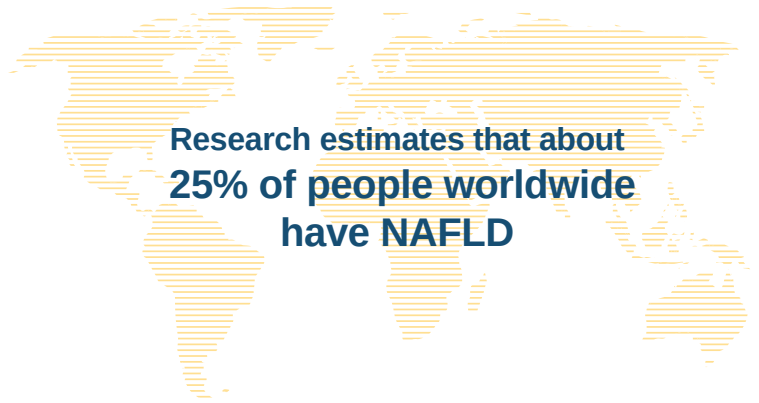
## Could I have NAFLD or NASH?

NAFLD and NASH can affect people of any age, including children. It is more common in people who live with certain conditions, including obesity (BMI >30) and conditions that may be related to obesity, such as type 2 diabetes, high blood pressure, or high cholesterol.

While NAFLD/NASH occurs in all populations, it is more common in Hispanic, Asian, and White populations than African-American. Further research supports that Hispanic individuals of Mexican origin have one of the highest incidences. In Europe, NAFLD affects 1 in 4 people with some differences according to geography and different socio-economic and ethnic groups.



**Talk to your doctor about these factors**



**Research estimates that about 25% of people worldwide have NAFLD**

## How common are NAFLD and NASH?

Unfortunately, very common. Research estimates that about 25 percent of people worldwide have NAFLD with the highest rates in South America, the Middle East, Asia, the United States, and Europe. Yet these conditions are under-identified and undertreated.

NAFLD/NASH are under-diagnosed due to a lack of disease awareness, symptoms that are difficult to identify, current screening procedures, and limited treatment and management options. NAFLD is increasing at approximately the same rate as obesity. Worldwide, NAFLD is estimated to occur in 25% of the population.

As global overweight and obesity rates have nearly tripled since 1975 with more than 1.9 billion adults overweight or obese, NAFLD is one of the most prevalent causes of liver disease in adults and children worldwide. NASH is expected to become the leading cause of liver transplant in the United States between 2020-2025.

## What are the signs and symptoms of NASH?

Many individuals do not display symptoms in the early stages. Once prominent damage to the liver has occurred, signs of NASH may become more obvious.

Individuals with NASH can report:

- Fatigue (tiredness that does not resolve with rest)
- Changes to skin color (yellowing)
- Abdominal pain

Cirrhosis is advanced liver disease and can be caused by NASH. If it develops, these symptoms may be observed:

- Jaundice (yellowing of the skin and whites of eyes)
- Itchy skin
- Swelling of the abdomen
- Dark urine



## How is NAFLD/NASH diagnosed?

NAFLD and NASH can have very few observable symptoms in the early stages. There are several tests to diagnose NAFLD/NASH. These tests include:

- 1 **General clinical history/exam**
- 2 **Blood tests**
- 3 **Imaging tests (e.g., ultrasound, MRI)**
- 4 **Liver biopsy**

## What happens if I am diagnosed with NASH?

Currently, there are no approved medications for NAFLD/NASH. However, there are several medications in clinical trials being tested for approval. In early stages, it is possible to stop it from progressing to severe liver damage through lifestyle change by focusing on physical activity and nutrition.

People with NASH are at a higher risk of developing other conditions such as metabolic disorders and cardiovascular disease. Cardiac-related deaths are one of the leading causes of mortality for people living with NASH or non-alcoholic fatty liver disease.

If left untreated and the liver becomes damaged to the point of failure, a liver transplant may be required. NASH can progress into cirrhosis, liver cancer, or result in death and is expected to become the leading cause of liver transplant in the United States.

## How can I reduce my risk for NAFLD/NASH?

The amount of fat in the liver can be reduced through nutrition (similar to a Mediterranean diet), physical activity, maintaining a healthy weight, and adequate sleep. This can help prevent and treat NAFLD and NASH.

Post this on  
your fridge as  
a reminder



### Nutrition



Read the nutrition labels to look for hidden fat, sugar, and sodium



Switch sugary drinks and sodas for water or low-calorie beverages



Have a goal of 5 portions of fruit and vegetables a day



Avoid oversized portions. Different products have different serving sizes



Eat foods high in fiber including whole grains



Avoid processed food and fast food



Use extra virgin olive oil as main added fat



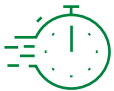
Avoid saturated fatty acid



Consume fish 2-3 times per week



### Activity



Aim for 60 minutes of physical activity a day. It does not have to be all at the same time. Walk more, exercise, take the stairs whenever possible



Sleep matters. Have a regular bedtime to ensure enough sleep. Ask your health care provider about your suggested amount of sleep



Reduce screen time by limiting media use and device type. Avoid screen time while eating and making sure screen time does not interfere with sleep and physical activity

# Are clinical trials for me?

If you are at risk or diagnosed with NAFLD or NASH, you may consider being a part of a clinical trial. Clinical trials are research studies that look at different, new ways to prevent, detect, treat disease, or improve quality of life. This research helps scientists:

- Identify care that is best
- Find the best dosage for medicines
- Find treatments for conditions
- Treat conditions that behave differently in different people
- Understand how treatment affects the individual or other conditions



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