

## Understanding MASH (Metabolic Dysfunction-Associated Steatohepatitis)

AKA: Fatty liver, formerly known as NASH

### What is MASH?

MASH, or Metabolic Dysfunction-Associated Steatohepatitis, is a serious form of fatty liver disease. It occurs when fat builds up in the liver, causing inflammation and damage. If untreated, MASH can lead to scarring (fibrosis), cirrhosis, or liver failure.

Some may still call it NASH (Nonalcoholic Steatohepatitis) and fatty liver.

### Causes and Risk Factors

MASH is often linked to metabolic conditions. Common risk factors include:

- Obesity
- Type 2 diabetes
- High cholesterol or triglycerides
- Metabolic syndrome
- Insulin resistance

*However, we are finding more and more people with MASH who simply have none of the above and are of certain ethnicities or have other genetic factors who may not be overweight at all, but may have an enlarged liver on physical examination or on Ultrasonography.*

### Symptoms

MASH often has no noticeable symptoms in its early stages. As it progresses, you may experience:

- Fatigue
- Abdominal discomfort (upper right side)
- Yellowing of the skin or eyes (jaundice)
- Swelling in the abdomen or legs

### Diagnosis

Your doctor may use the following to diagnose MASH:

- Blood tests to check liver function
- Fibroscan (the current best way to find fattiness of the liver or stiffness of the liver)
- Imaging tests (ultrasound, CT, or MRI)
- Liver biopsy (in some cases)

### Treatment and Management

Currently, there is one FDA approved medication for MASH with fibrosis stage 2-3, but lifestyle changes can help manage or reverse it in cases of low fibrosis (stage 0-1):

- **Healthy Diet:** Focus on fruits, vegetables, whole grains, and lean proteins. Limit sugar, processed foods, and saturated fats.
- **Weight Loss:** Losing 7-10% of body weight can reduce liver fat and inflammation.
- **Exercise:** Aim for at least 150 minutes of moderate activity (like brisk walking) per week.
- **Manage Conditions:** Control diabetes, cholesterol, and blood pressure with your doctor's guidance.
- **Avoid Alcohol:** Alcohol can worsen liver damage.