

Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD)

What is MASLD?

Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD), previously called "fatty liver disease," is a condition where extra fat builds up in your liver. This is the most common liver disease worldwide, affecting about 30-40% of adults. MASLD is closely linked to conditions like obesity, diabetes, high blood pressure, and high cholesterol.

MASLD can range from simple fat buildup (which may not cause problems) to a more serious form called MASH (Metabolic Dysfunction-Associated Steatohepatitis), where inflammation and scarring develop in the liver.

Who Gets MASLD?

You are at higher risk for MASLD if you have:

- Overweight or obesity (especially around the waist)
- Type 2 diabetes or prediabetes (60-70% of people with diabetes have MASLD)
- High blood pressure
- High triglycerides (a type of fat in your blood)
- Low HDL cholesterol (the "good" cholesterol)
- Age 50 or older
- Family history of liver disease

Why Does MASLD Matter?

While many people with MASLD feel fine, the condition can lead to serious health problems over time:

- **Liver complications:** Advanced scarring (cirrhosis), liver failure, and liver cancer
- **Heart disease:** The leading cause of death in people with MASLD
- **Diabetes:** MASLD increases your risk of developing type 2 diabetes
- **Kidney disease:** Higher risk of chronic kidney problems
- **Certain cancers:** Increased risk of some cancers outside the liver

The good news is that early detection and treatment can prevent these complications.

How is MASLD Diagnosed?

Your doctor may diagnose MASLD through:

- Blood tests to check liver function
- Imaging tests like ultrasound to look for fat in the liver
- Special tests to measure liver stiffness, such as a Fibroscan, (to check for scarring)
- Sometimes a liver biopsy (taking a small tissue sample)

What Can You Do About MASLD?

Lifestyle changes are the most important treatment for MASLD. Here's what helps:

Weight Loss

- Losing 5-10% of your body weight can significantly improve liver health
- Greater weight loss (10% or more) may help reverse liver scarring
- Even modest weight loss helps reduce liver fat

Healthy Eating

- Follow a Mediterranean-style diet rich in:
 - Fruits and vegetables
 - Whole grains
 - Fish
 - Olive oil and healthy fats
 - Nuts and legumes
- Limit or avoid:
 - Processed foods
 - Sugary drinks and foods
 - Foods high in saturated fat
 - Fried foods
 - High-fructose corn syrup

Physical Activity

- Aim for at least 150 minutes of moderate exercise per week
- Both aerobic exercise (walking, swimming, cycling) and strength training help
- Any increase in physical activity is beneficial

Alcohol

- Avoid alcohol or drink only in very small amounts
- Alcohol can worsen liver damage, even in small quantities

Manage Other Health Conditions

- Control your blood sugar if you have diabetes
- Treat high blood pressure and high cholesterol
- Work with your doctor to optimize all your medications

Medical Treatments

For people with more advanced MASLD (MASH with significant scarring), your doctor may recommend:

- Medications like semaglutide or resmetirom (FDA-approved for advanced cases)
- Weight loss medications
- In some cases, bariatric (weight loss) surgery may be considered

What to Expect

With proper treatment and lifestyle changes:

- Many people can reduce or eliminate liver fat
- Inflammation can improve
- Early scarring may be reversible
- Risk of complications decreases significantly

However, MASLD requires long-term management. Regular follow-up with your healthcare team is essential to monitor your liver health and adjust your treatment plan as needed.

References

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