

Fatty Liver Disease Handout

Fatty liver disease is a condition where extra fat builds up in the liver. The new names for this condition are **Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD)** and **Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD)**. These terms highlight that the disease is linked to problems like obesity, diabetes, high blood pressure, and high cholesterol, not just alcohol use.[1][2][3][4]

How common is it?

MASLD affects more than a quarter of people worldwide, and the number is rising because obesity and diabetes are becoming more common. Many people with MASLD do not have symptoms, but some may feel tired or have mild pain in the upper right side of the abdomen.[5][6]

Why does it matter?

MASLD can lead to serious liver problems, including inflammation (called MASH, formerly NASH), scarring (fibrosis), cirrhosis (severe scarring), and even liver cancer. It also raises the risk for heart disease, stroke, and kidney problems.[1][2][5][6]

How is it diagnosed?

Doctors may suspect MASLD if you have risk factors like obesity, diabetes, or abnormal liver tests. Diagnosis often starts with blood tests and imaging (like ultrasound or special scans). Non-invasive scores (like FIB-4) and scans (like FibroScan) help check for liver scarring. Sometimes, a liver biopsy is needed, but this is rare.[1][7][8]

How is it treated?

The main treatment is lifestyle changes:

- Lose weight: Even a small amount of weight loss can help your liver.
- **Eat a healthy diet**: Focus on vegetables, fruits, whole grains, lean proteins, and healthy fats. Limit sugar, processed foods, and red meat.[3][8]
- Exercise regularly: Aim for at least 150 minutes of moderate activity each week.

- Avoid alcohol: Alcohol can make liver disease worse.[8]

Medications:

- **Rezdiffra (resmetirom)** is a new medicine approved for adults with noncirrhotic MASH and moderate to advanced liver fibrosis (stages F2–F3). It is used along with diet and exercise.[1][2][7][9]
- **Wegovy (semaglutide)** is approved for weight loss and for treating noncirrhotic MASH with moderate to advanced fibrosis. It helps with weight loss and improves liver health, especially in people with obesity or diabetes.[1][2][5][7][9][10][11]
- Other medicines, like pioglitazone and vitamin E, may be used in some cases, but are not approved for everyone.[8][10][11]

What are the possible complications?

If MASLD is not managed, it can progress to:

- Liver inflammation (MASH)
- Liver scarring (fibrosis and cirrhosis)
- Liver cancer
- Heart disease, stroke, and kidney problems[1][2][5][6]

What can you do?

- Work with your healthcare team to manage your weight, blood sugar, blood pressure, and cholesterol.
- Make healthy lifestyle choices every day.
- Take medicines as prescribed if you qualify for them.
- Get regular check-ups to monitor your liver and overall health.

Early diagnosis and treatment can prevent serious problems and help you live a healthier life.[2][4][6][7][8]

References

 EASL-EASD-EASO Clinical Practice Guidelines on the Management of Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD): Executive Summary. Diabetologia. 2024;67(11):2375-2392. doi:10.1007/s00125-024-06196-3.

- Metabolic Dysfunction—Associated Steatotic Liver Disease. Targher G, Valenti L, Byrne CD. The New England Journal of Medicine. 2025;393(7):683-698. doi:10.1056/NEJMra2412865.
- Management of Metabolic-Associated Fatty Liver Disease/Metabolic Dysfunction-Associated Steatotic Liver Disease: From Medication Therapy to Nutritional Interventions. Beygi M, Ahi S, Zolghadri S, Stanek A. Nutrients. 2024;16(14):2220. doi:10.3390/nu16142220.
- Metabolic Dysfunction-Associated Steatotic Liver Disease: Update and Impact of New Nomenclature on the American Association for the Study of Liver Diseases Practice Guidance on Nonalcoholic Fatty Liver Disease. Kanwal F, Neuschwander-Tetri BA, Loomba R, Rinella ME. Hepatology (Baltimore, Md.). 2024;79(5):1212-1219. doi:10.1097/HEP.000000000000000070.
- 5. <u>Metabolic-Dysfunction-Associated Steatotic Liver Disease-Its Pathophysiology, Association With Atherosclerosis and Cardiovascular Disease, and Treatments.</u> Yanai H, Adachi H, Hakoshima M, Iida S, Katsuyama H. International Journal of Molecular Sciences. 2023;24(20):15473. doi:10.3390/ijms242015473.
- 6. <u>Metabolic Dysfunction-Associated Steatotic Liver Disease: From Pathogenesis to Current Therapeutic Options.</u> Portincasa P, Khalil M, Mahdi L, et al. International Journal of Molecular Sciences. 2024;25(11):5640. doi:10.3390/ijms25115640.
- 7. Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) in People With Diabetes: The Need for Screening and Early Intervention. A Consensus Report of the American Diabetes Association. Cusi K, Abdelmalek MF, Apovian CM, et al. Diabetes Care. 2025;48(7):1057-1082. doi:10.2337/dci24-0094.
- AASLD Practice Guidance on the Clinical Assessment and Management of Nonalcoholic Fatty Liver Disease. Rinella ME, Neuschwander-Tetri BA, Siddiqui MS, et al. Hepatology (Baltimore, Md.). 2023;77(5):1797-1835. doi:10.1097/HEP.0000000000000323.
- 9. FDA Orange Book. FDA Orange Book.
- Cardiovascular, Kidney, and Metabolic Health: An Actionable Vision for Heart Failure <u>Prevention.</u> Ostrominski JW, Cheng AYY, Nelson AJ, et al. Lancet (London, England). 2025;406(10508):1171-1192. doi:10.1016/S0140-6736(25)01384-4.
- 11. <u>Type 2 Diabetes.</u> Ahmad E, Lim S, Lamptey R, Webb DR, Davies MJ. Lancet (London, England). 2022;400(10365):1803-1820. doi:10.1016/S0140-6736(22)01655-5.