

# Liver Disease and Lifestyle Factors

**Anna Cason**

Senior Extension Associate

The liver is an essential organ meaning you cannot live without it. It removes toxins, supports digestion, and stores and releases energy. Liver disease is the result of damage to the liver, which can negatively impact these functions. Unfortunately, liver disease is common, does not have any signs or symptoms, and may go undetected until the disease has progressed. More than 100 million people in the United States have some form of liver disease.

There are more than 100 different types of liver disease. Some liver diseases are autoimmune conditions, some are genetic and may run in your family, and some types of liver disease are linked to lifestyle factors.

Some of the common lifestyle factors that lead to liver disease include frequently drinking large amounts of alcohol, limited physical activity, and a diet lacking nutritious foods. As a result, you might develop metabolic dysfunction-associated steatotic liver disease (MASLD). MASLD is a condition in which too much fat builds up in the liver over time. This condition used to be called non-alcoholic fatty liver disease (NAFLD). If you do not address this condition, it can progress to liver scarring (fibrosis) and even cirrhosis or liver failure. If you address it early with positive lifestyle changes, you can reverse MASLD.



## Who is at risk of MASLD?

People living with certain health conditions may be at an increased risk of developing MASLD. These conditions include:

- Type 2 diabetes
- Overweight and obesity
- High blood cholesterol
- High blood triglycerides
- Heart disease

There are no symptoms that are generally recognized with MASLD. Some signs may not appear until the disease has progressed to the later stages. If you

are concerned about your risk for MASLD, discuss this with your health-care provider. They may want to run a blood test to check the levels of your liver enzymes. Before a diagnosis of MASLD, your health-care provider will consider your medical history, your family history, and might request other tests, like an ultrasound, to get a visual of the liver.

## Management of MASLD

Management of MASLD will likely require you to visit a liver specialist. There are no medications for the treatment of the disease. Experts recommend those with MASLD choose nutritious foods often, avoid alcohol altogether, and add in physical activity. These lifestyle choices manage blood sugar, cholesterol, and triglyceride levels which all support liver health. These changes may result in small amounts of weight loss, which when done in a healthy way, can also support liver health.

## Lifestyle Factors to Prevent or Manage Liver Disease

### *Choose Nutritious Foods*

Prioritizing nutrient-dense foods can support liver health. These foods include lean proteins from both animal and plant sources. Reduced-fat dairy products are great sources of protein, calcium, and vitamin D to support strength. Nutrient-dense foods also include

fresh, frozen, and canned fruits and vegetables. Be mindful of the sodium content of frozen and canned vegetables by reaching for “no salt added” or “low sodium” options. And consider the sugar content of frozen and canned fruits choosing those in 100% fruit juice or with “no added sugar.” Whole grains provide vitamins, minerals, and fiber to our diet. These options support our heart health, promote proper digestion, and provide energy for our bodies, especially our brains.

By prioritizing these options in your eating pattern, it is likely that you will naturally follow some of the recommendations for MASLD. These include:

- Limit saturated fat
  - › Fat is important to our diet, but not all fats are created equal. Choose foods that are high in unsaturated fat, like omega-3 fatty acids found in fish and seafood, walnuts, flaxseeds, vegetable oils like canola, and in foods fortified with it.
  - › Saturated fat is often found in dairy products, fatty cuts of meat and processed meat, and in fried foods. By choosing reduced-fat dairy and lean cuts of meat, we can limit the amount in our diet. Minimize commercially baked goods and snacks and fried foods, like French fries, potato chips, and fried meat to limit saturated fat.
- Minimize added sugar

Food Group	Foods
<b>Protein</b>	Skinless chicken and turkey, pork and beef with “loin” or “roast” in the name, and fish; plant sources include beans, peas, and lentils
<b>Dairy</b>	Reduced-fat milk, yogurt, cheese
<b>Fruits</b>	Fresh, frozen, canned (100% fruit juice or no added sugar)
<b>Vegetables</b>	Fresh, frozen, canned (low sodium or no salt added)
<b>Whole Grains</b>	Brown rice, oats, popcorn, quinoa, and products with “whole wheat” listed first in the ingredients

- › Added sugar is added in the preparation and processing of foods and drinks. Choose unsweetened beverages most of the time. Be mindful of packaged foods that contain added sugar. You can find this information on the Nutrition Facts label.

Consider focusing on what you can add to your diet. By incorporating the nutrient-dense options listed above, we can naturally limit foods and drinks that do not support our liver health. Build a balanced diet by incorporating at least three food groups into each meal. Aim to get each food group in your diet over the course of the day.

When considering beverage choices for liver health, reach for water and unsweetened tea or coffee. These options provide hydration without added sugar. Avoid sugar-sweetened beverages like juice, lemonade, soda, sweet tea, flavored coffee drinks, and sports drinks.

#### *Avoid Alcohol*

Alcohol directly impacts our liver health. The liver is the main site where the body breaks down and metabolizes alcohol. With frequent use, alcohol will cause large amounts of inflammation in the liver and cause liver cells to die. Management of MASLD often requires avoiding alcohol, including beer, wine, and hard liquor, to lower the risk of additional liver damage. This may allow the liver to heal and prevent any further damage to the liver over time.

#### *Add in Physical Activity*

Physical activity is essential for the prevention and management of liver disease. Recommendations include engaging in physical activity for at least 150 minutes per week. Finding an activity that you enjoy can encourage consistency and accountability. This could be walking, running, biking, dancing, or gardening. Challenge yourself to 30 minutes of movement five days a week. This can look like three 10-minute walks. Start small and take it one step at a time.

Engaging in regular movement, avoiding alcohol, and consuming a balanced diet of nutrient-rich foods can prevent progression, help to manage, or reduce the risk of MASLD altogether. If you are living with MASLD, it will take time for your lifestyle changes to result in improved liver health. Since symptoms of MASLD often aren't obvious, it can be hard to tell if your positive lifestyle changes are making a difference. These practices support your health overall. Continue to ask questions and have conversations with your health-care provider about your liver health.

## References

- National Institute of Diabetes and Digestive and Kidney Diseases. (2021, April). *Eating, Diet, & Nutrition for NAFLD & NASH | NIDDK*. National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/liver-disease/naflid-nash/eating-diet-nutrition>
- Nonalcoholic Fatty Liver Disease (NAFLD)*. (2024, May). American Liver Foundation. <https://liverfoundation.org/liver-diseases/fatty-liver-disease/nonalcoholic-fatty-liver-disease-naflid/>
- Carstensen, J., Balakrishnan, M., & Gaba, R. (n.d.). *Non-Alcoholic Fatty Liver Disease A Guide to What & How to Eat [Review of Non-Alcoholic Fatty Liver Disease A Guide to What & How to Eat]*. Baylor Medicine. <https://www.bcm.edu/sites/default/files/a-guide-to-what-and-how-to-eat-non-alcoholic-fatty-liver-disease.pdf>
- How Many People Have Liver Disease? (2023, September 11). American Liver Foundation. <https://liverfoundation.org/about-your-liver/facts-about-liver-disease/how-many-people-have-liver-disease/>

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior civil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.