

# Connection Between Fatty Liver Disease and Heart Disease

**S**INCE THERE WAS SOME INTEREST IN FATTY LIVER DISEASE LAST WEEK IN KANNDA KUTUMBA, I THOUGHT OF WRITING ABOUT THIS. A healthy liver contains no significant amount of fat. When fat makes up more than 5 to 10% of the liver weight, it is considered a fatty liver. Previously called fatty liver disease, it is now known as metabolic dysfunction-associated steatotic liver disease, MASLD.

Worldwide an estimated 30% of the people has MASLD. About one in five people with MASLD have more severe form of the disease, called metabolic dysfunction associated steatohepatitis ( MASH) in which the liver cells are inflamed and injured. This process may create scar tissues, which can eventually replace normal liver cells and leads to cirrhosis.

**WHAT CAUSES MASLD;** The root cause of the problem is usually excess weight- especially accumulation of belly fat known as visceral or abdominal obesity. Weight gain can trigger variety of metabolic problems that cause blood sugar, blood pressure and cholesterol levels to rise. All of these factors are closely linked to higher risk for diabetes and cardiovascular disease.

Experts believe that inflammatory compounds and other substances pumped out by fat affected liver may damage the inside of arteries, causing plaque buildup and setting the stage for a heart attack or a stroke.

Other risk factors include type two diabetes or insulin resistance, high cholesterol, or triglycerides, poor diet (especially high sugar, processed food), sedentary lifestyle, heavy alcohol consumption

**HOW IS MASLD IS DIAGNOSED:** In his early stages, MASLD has no symptoms. It is often discovered incidentally, during an imaging test such as abdominal ultrasound, MRI or CT scan. Sometimes blood test reveal mild elevation in the liver enzymes. However, many patients with MASLD have normal liver functions. Doctors may also use a tool known as FIBROSIS-4 INDEX.

This used a person's age plus 3 other common lab values (platelet count and 2 liver function tests) to estimate person's risk of serious liver disease. People may also undergo a non-invasive test called transient elastography, also known as Fibroscan which measures liver stiffness. In some cases, liver biopsy may be needed.

**TREATMENT:** Weight loss is very effective and losing 10% of your body weight can reverse MASLD. The diet recommended for heart health, special Mediterranean diet is a good choice. Other strategies to decrease calorie intake like intermittent fasting can also be helpful. It is well known that there is no safe amount of alcohol for anyone.

But people with obesity and Diabetes were already at high risk for developing liver disease and should absolutely avoid all alcohol.

**MEDICATIONS:** Some physicians are reluctant to prescribe cholesterol lowering statins in people who may have liver disease. In occasional cases, statins can cause abnormal liver functions, and even more rarely, a drug induced auto immune liver disease, which can cause liver enzyme to rise. But heart protecting effects of statins far out weigh that small risk.

In many cases, mild elevation in the liver enzymes most likely related to MASLD not to statins. Make sure you discuss these with your physician if you are on statin or if you are planning to start statin.

Some research shows that low-dose aspirin may help to prevent the progression of MASLD to MASH. Unless your physician recommends low-dose aspirin, people should not be taking it on their own. Obesity drugs, such as Semaglutide (Wegovy) and Tirzapatide (Zepbound) appear to be promising for reversing MASLD. In 2024, FDA approved Resmetirom (Resdiffra) to treat MASH.

This Drug helps to prevent fat buildup in the liver and may reverse liver scarring. Pioglitazone, a drug used in type two diabetes may help in MASLD/MASH, especially if you have type two diabetes/insulin resistance

These are for information purpose only and are not recommendations.

I have not seen any recommendation for ghee in the treatment of fatty liver disease.

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