

NAFLD

Liver is an organ that processes food we eat, stores energy and provides the body with a healthy immune system.

Non-alcoholic fatty liver disease (NAFLD) is a very common disorder and refers to a group of conditions where there is accumulation of excess fat in the liver of people who drink little or no alcohol. The most common form of NAFLD is a non serious condition called fatty liver.

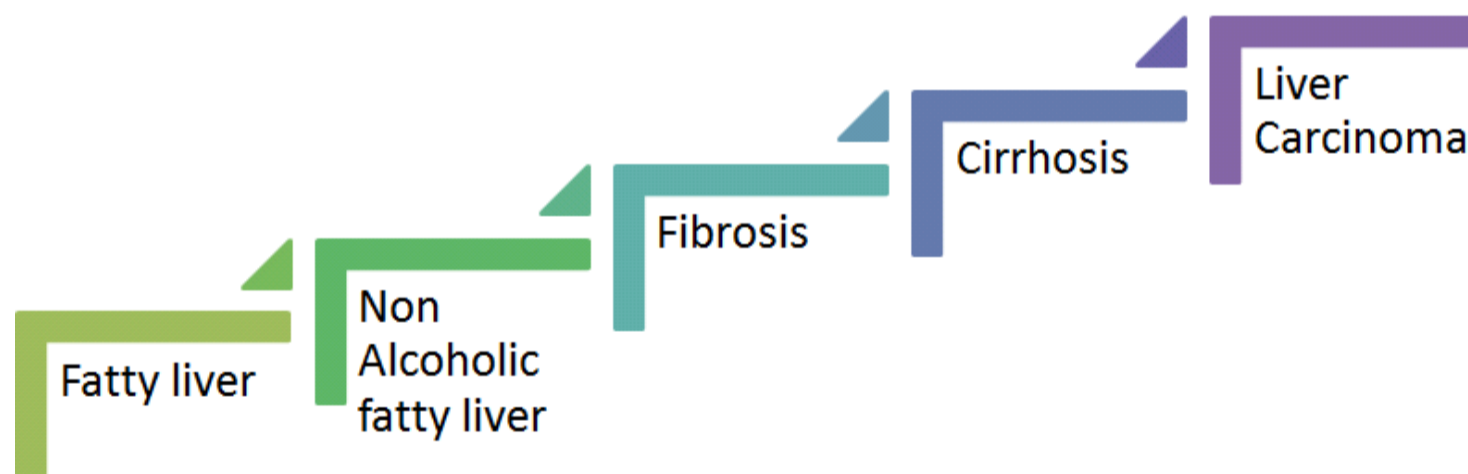
In fatty liver, fat accumulates in the liver cells. Although having fat in the liver is not normal, by itself it probably does not damage the liver. Some people with NAFLD may have a more serious condition named non-alcoholic steatohepatitis (NASH). In NASH, fat accumulation is associated with liver cell inflammation and different degrees of scarring.

NASH is a potentially serious condition that may lead to severe liver scarring and cirrhosis. Cirrhosis occurs when the liver sustains substantial damage, and the liver cells are gradually replaced by scar tissue, which results in the inability of the liver to work properly. Some patients who develop cirrhosis may eventually require a liver transplant (surgery to remove the damaged liver and replace it with a “new” liver).

Nonalcoholic fatty liver disease usually causes no signs and symptoms. When it does, they may include: Enlarged liver, Fatigue, discomfort in the upper right abdomen.

Nonalcoholic fatty liver disease and nonalcoholic steatohepatitis are both linked to the following:

- Overweight or obesity (Lean people may also suffer from NASH)
- Insulin resistance, in which your cells don't take up sugar in response to the hormone insulin
- High blood sugar (hyperglycemia)
- High levels of fats, particularly triglycerides, in the blood
- These combined health problems appear to promote the deposition of fat in the liver. For some people, this excess fat acts as a toxin to liver cells, causing liver inflammation and nonalcoholic steatohepatitis, which may lead to a buildup of scar tissue (fibrosis) in the liver.
- Some patients with excessive fibrosis progress to cirrhosis.



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Because nonalcoholic fatty liver disease causes no symptoms in most cases, it frequently comes to medical attention when tests done for other reasons point to a liver

Blood tests

- Complete blood count
- Liver enzyme and liver function tests
- Tests for chronic viral hepatitis (hepatitis A, hepatitis C and others)
- Blood sugar measurement
- Lipid profile, which measures blood fats, such as cholesterol and triglycerides

Imaging procedures

Imaging procedures used to diagnose nonalcoholic fatty liver disease include:

- Plain ultrasound, which is often the initial test when liver disease is suspected.
- Transient elastography, an enhanced form of ultrasound that measures the stiffness of your liver. Liver stiffness indicates fibrosis or scarring.

Liver Function Tests			Enzymes	Normal level (Male)	Normal level (Female)
Liver Enzyme Tests	Liver Protein Tests	Bilirubin Tests			
			ALT	10-40 U/L	7-35 U/L
			AST	14-20 U/L	10-36 U/L
			Alkaline Phosphate	14-20 U/L	Less than 350 U/L
			GGT	9-31 U/L	6-29 U/L



Reduce Weight



Restrict dietary salt



Exercise regularly



Avoid alcohol



Quit Smoking



Avoid self medication

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You can take steps to control your nonalcoholic fatty liver disease. You can:

Lose weight - If you're overweight or obese, reduce the number of calories you eat each day and increase your physical activity in order to lose weight. Calorie

reduction is the key to losing weight and managing this disease.

Exercise and be more active - Aim for at least 30 minutes of exercise.

Choose a healthy diet - Eat a healthy diet that is rich in fruits, vegetables and whole grains, and keep track of all calories you take in.

Control your diabetes - Follow your doctor's instructions to stay in control of your diabetes. Take your medications as directed and closely monitor your blood sugar.

Lower your cholesterol - A healthy plant-based diet, exercise and medications can help keep your cholesterol and your triglycerides at healthy levels.

Do not self medicate - Follow the instructions on all medications and do not use over-the-counter drugs. Check with your doctor before using any herbal remedies, muscle boosting powders, as not all such products are safe.

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- Avoid eating fried and fast food
- Avoid cold-drinks.
- Limit cakes, chocolates, sweets
- Eat plenty of green vegetables
- Eat lean meats & small fish
- Eat legumes (beans, chickpeas or lentils)
- Avoid alcohol
- Quit smoking

NAFLD

Can it be cured?

It can be controlled.

How long do I need to follow instructions?

Life long but remain under regular followup

Can it lead to cirrhosis?

Yes, but in a small percentage