

FATTY LIVER DISEASE

Do you have Fatty Liver ?

Are you at risk of developing Advanced Liver Disease ?

What you should know about Fatty Liver Disease



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What is fatty liver

Fatty liver disease is a medical condition in which there is accumulation of excess fat in the liver. Fatty liver has been well known to be associated with excess alcohol consumption. But Fatty Liver is also extremely common in individuals who do not drink alcohol or drink little alcohol. This form of fatty liver is known as non-alcoholic fatty liver disease (NAFLD) or Metabolism associated Fatty Liver Disease (MAFLD). The prevalence of NAFLD has increased significantly in the last 2 decades. In general, the rising prevalence of fatty liver is closely related to adoption of a progressively sedentary life, consumption of high calorie diet and weight gain.

How is fatty liver detected

Most patients with fatty liver are detected incidentally when they get an ultrasound scan of the abdomen for other reasons. Fatty liver, in its early stages, rarely causes any symptoms. Some patients with an unusually large liver may have a dull discomfort in the right upper part of the abdomen. Patients with fatty liver may also may mild abnormalities of liver function tests detected during blood testing. Most individuals do not get further evaluation done since the disease does not cause any symptoms, has a slow course and is therefore often ignored.

Who develops fatty liver

Fatty liver usually develops in individuals who are overweight, and in those with diabetics. Even people

Types of fatty liver

Simple fatty liver without liver inflammation (also known as non-alcoholic fatty liver or NAFL). This is generally a benign condition that usually does not progress to advanced forms of liver disease.

Fatty liver with liver inflammation (also known as non-alcoholic steato-hepatitis or NASH). In this condition, the excess fat in the liver causes inflammation of the liver cells. This form of fatty liver may progress slowly over 20-30 years and lead to serious liver damage

with mild obesity and especially abdominal obesity are prone to develop fatty liver. Fatty liver is especially common in those with a condition called metabolic syndrome. Patient with metabolic syndrome usually have a combination of one or more of these diseases namely obesity, diabetes, high blood pressure, high cholesterol, increased uric acid and polycystic ovary syndrome in ladies. Even children who get overweight due to lack of physical activity and improper diet high in carbohydrates and fat are prone to develop fatty liver. In India, it has been seen that some thin individuals may also develop fatty liver and this may also progress to advanced liver disease. This form on fatty liver is often called “lean NASH.”

What is the burden of fatty liver in the United Arab Emirates

The United Arab Emirates is home to people from all over the world. People have different dietary patterns, lifestyle and possible genetic influences and these factors may account for variation in prevalence of fatty liver among residents. However, it is estimated that 40% of adults and up to 10% of children may have fatty liver.

... about one in four patients with fatty liver have NASH which progresses to advanced liver fibrosis in about 10 percent

Why is it important to differentiate between simple fatty liver and NASH

This is the most important differentiation to be made when a patient seeks medical consultation for fatty liver. Simple fatty liver usually does not progress to advanced liver disease while NASH may progress over several years to more advanced forms of liver disease such as liver fibrosis and cirrhosis. Advanced NASH is also a risk factor for liver cancer. Out of all individuals with fatty liver, approximately a fourth have the progressive variant or NASH. Amongst patients with NASH, about 10 percent will eventually progress to liver cirrhosis.

Who is at higher risk for developing NASH and progressive liver disease

Individuals who have multiple metabolic risk factors such as combination of obesity with diabetes and/or high blood pressure or cholesterol are at higher risk of progressive liver disease. There are genetic risk factors as well and therefore individuals with a history of similar form of liver disease in close family members are at higher risk.

How are advanced forms of NASH and NASH related cirrhosis detected

Essentially as the liver gets more diseased, it gets scarred and develops what is known as liver fibrosis. Fibrosis causes the liver to become more firm. The degree of firmness of the liver can be assessed by a simple scan known as liver elastography or Fibroscan. Liver elastography is different from a regular ultrasound scan but it is done in similar fashion. It is non-invasive and takes less than 5 minutes to perform. Performing a liver elastography is therefore a simple way to assess liver stiffness or firmness in patients with fatty liver disease and helps detect advanced forms of liver disease. Some patients may also need a liver biopsy, which is a process in which a small sample of liver tissue is taken with a special needle introduced into the liver through the skin. This is usually needed when it is necessary to exclude other forms of liver disease in a patient with fatty liver disease.

What is NASH related Cirrhosis

Extreme liver fibrosis is known as liver cirrhosis. In this condition, the liver which is otherwise a soft organ becomes quite hard and starts functioning poorly. Patients can go on to develop liver failure in which there is development of jaundice (yellow eyes), generalized weakness, loss of muscle mass, accumulation of fluid in the belly and swelling of the legs. These patients can also develop internal bleeding from the food-pipe and stomach, mental confusion, kidney problems and infections. Such patients may eventually need a lifesaving liver transplantation. Patients with NASH related liver cirrhosis also have a high risk for development of liver cancer. It is recommended that such patients must undergo periodic ultrasound scans, usually once in 6 months, to detect cancer early so that there is higher chances of cure.

How is heart disease related to NASH

It has been shown that most patients with fatty liver and NASH have risk factors that are common for heart disease as well. These include diabetes, high blood pressure, high cholesterol and obesity. Therefore, patients with fatty liver are at high risk for developing heart disease and in fact heart disease is a more common cause of worry in these patients compared to

advanced liver disease. Patients may also develop heart disease much earlier in age than advanced liver disease. It is recommended that all patients with NASH should have evaluation for heart disease even if they have no suggestive symptoms.

What monitoring do patients with simple fatty liver need

Patients with simple fatty liver usually do not require extensive tests. It is essential for these patients to make sure they do not develop diabetes, high cholesterol or blood pressure. If they maintain a healthy lifestyle and normal body weight, the fatty liver usually does not progress. Regular liver function tests in such patients are often not needed. Such patients however do have a risk of progressing to NASH if they develop additional risk factors such as increase in body weight and diabetes.

What monitoring do patients with NASH need

Patients essentially need regular monitoring to check whether they may be developing liver fibrosis. Periodic liver function tests and liver elastography are needed. Regular monitoring for control of diabetes, cholesterol and triglycerides are needed. Patients with NASH also need evaluation for underlying heart disease. Patients with NASH who have progressed to advanced fibrosis or early cirrhosis may still not have symptoms and therefore absence of symptoms in these patients should not be taken as evidence of a healthy liver. Such patients with advanced liver fibrosis or cirrhosis need regular blood tests and ultrasound scans of the liver every 6 months to detect early liver cancer that can be treated in time.

What is the treatment for simple fatty liver

The best way to reduce liver fat is to reduce body weight. Even a 5 to 10% decrease in body weight helps reduce liver fat significantly. A diet which is low in carbohydrates and moderate in fat intake also helps in reducing liver fat. It is also important to make sure that associated diseases such as diabetes, high cholesterol and triglycerides are also well controlled.

Are there any medications for treatment of fatty liver and NASH

Simple fatty liver does not require any medications. There are several medications under clinical trials for patients with advanced forms of fatty liver such as NASH and liver fibrosis. Certain medications used for diabetes have also been found useful in patients with NASH. And therefore patients with NASH and diabetes may preferably be started on one of these medications. General liver protectives, although quite popularly used by lot of patients and even doctors, have not been found to be useful in fatty liver and NASH.

Suggested Reading

Patient education: Nonalcoholic fatty liver disease (NAFLD), including nonalcoholic steatohepatitis (NASH) (Beyond the Basics). <https://www.uptodate.com/contents/nonalcoholic-fatty-liver-disease-nafld-including-nonalcoholic-steatohepatitis-nash-beyond-the-basics>

American Liver Foundation: Nonalcoholic Fatty Liver Disease. <https://liverfoundation.org/for-patients/about-the-liver/diseases-of-the-liver/non-alcoholic-fatty-liver-disease/>

British Liver Trust. Nonalcoholic Fatty Liver Disease. <https://britishlivertrust.org.uk/information-and-support/living-with-a-liver-condition/liver-conditions/non-alcohol-related-fatty-liver-disease/>