Newly Diagnosed: Nonalcoholic Fatty Liver Disease

Learning you have nonalcoholic fatty liver disease can be overwhelming. You may have a lot of questions and may wonder what the first step to take is. You are not alone. The American Liver Foundation (ALF) is here to help. ALF provides individuals who have liver disease with the resources and information they need to care for their livers. Learn as much as you can about your liver, nonalcoholic fatty liver disease, and the resources available to you. Take steps forward equipped with information and support!

The American Liver Foundation's mission is to facilitate, advocate, and promote education, support, and research for the prevention, treatment, and cure of liver disease.

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Nonalcoholic Fatty Liver Disease (NAFLD)

Nonalcoholic fatty liver disease (NAFLD) is the build up of extra fat in liver cells that is not caused by alcohol use. It is normal for the liver to contain some fat. However, if more than 5% to 10% of the liver’s total weight is fat, then it is called a fatty liver (steatosis).

NAFLD tends to develop in people who are overweight or obese or have diabetes, high cholesterol or high triglycerides. Rapid weight loss and poor eating habits also may lead to NAFLD. A common condition in patients with NAFLD is insulin resistance (the body does not respond normally to insulin).

Some people develop NAFLD even if they do not have any risk factors. NAFLD affects up to 25% of people in the United States.

Symptoms of NAFLD

NAFLD often has no symptoms. When symptoms occur, they may include fatigue, weakness, weight loss, loss of appetite, nausea, abdominal pain, spider-like blood vessels, yellowing of the skin and eyes (jaundice), itching, fluid build up and swelling of the legs (edema) and abdomen (ascites), and mental confusion.

Treatment of NAFLD

There are currently no medical treatments for NAFLD. Doctors may prescribe medications that help treat conditions affecting NAFLD (insulin resistance, diabetes, high cholesterol or high triglycerides). Some doctors may recommend vitamin E for patients with NAFLD. Also, eating a healthy diet and exercising regularly may help prevent liver damage from starting, or reverse it in the early stages.

Other lifestyle choices that can keep your liver healthy include:

- See a doctor who specializes in the liver (hepatologist or gastroenterologist) regularly
- Talk to your doctor about ways to improve your liver health
- Talk to your doctor about all the medications you take, including over the counter medicines, prescriptions, vitamins, and supplements
- Lose weight if you are overweight or obese
- Lower your cholesterol and triglycerides
- Control your diabetes
- Avoid alcohol
Living with NAFLD

It is possible for people with NAFLD to live healthy, active lives. You can take steps to keep yourself healthy. Talk to your doctor about treatment options and diet recommendations.

Is NAFLD contagious?
No, NAFLD is not contagious and cannot be spread from one person to another.

Can people with NAFLD continue to work and do everyday activities?
Yes, people with NAFLD can continue to work and do everyday activities.

What are the possible complications of NAFLD?
NAFLD can cause the liver to swell (steatohepatitis). A swollen liver may cause scarring (cirrhosis) over time and may even lead to liver cancer or liver failure.

What is nonalcoholic steatohepatitis (NASH)?
The more severe form of NAFLD is called nonalcoholic steatohepatitis (NASH). NASH causes the liver to swell and may lead to liver scarring. NASH tends to develop in people who are overweight or obese, or have diabetes, high cholesterol or high triglycerides. However, some people have NASH even if they do not have any risk factors.

Most people with NASH are between 40 and 60 years old. NASH is more common in women than in men. NASH often has no symptoms and people can have NASH for years before symptoms occur.

NASH is one of the leading causes of cirrhosis in adults in the United States. Up to 25% of adults with NASH may develop cirrhosis.

What can family members of a person with NAFLD do to reduce their risk of NAFLD?
Family members can take the following steps to reduce their risk of NAFLD:
  o Maintain a healthy weight
  o Eat a healthy diet
  o Exercise regularly
  o Limit alcohol intake
  o Only take medicines that they need and follow dosing recommendations

Glossary
The following is a list of NAFLD-related terms you may hear or read about:

**Ascites**: Ascites is the build up of fluid in the abdomen that can occur with liver failure, cirrhosis, and liver cancer.

**Cholesterol**: Cholesterol is a type of fat found in blood.

**Cirrhosis**: Cirrhosis is extensive scarring of the liver -- hard scar tissue replaces soft healthy tissue. Severe scarring of the liver can prevent the liver from working well.

**Clinical trial**: A clinical trial is a medical research study conducted to find answers to health questions. Clinical trials are often conducted to evaluate new medications, combinations of medications, or new ways to use current treatments. Also, clinical trials are conducted to evaluate new tests, equipment, and procedures for diagnosing and detecting health conditions and to find vaccines to prevent illnesses.

**Computerized tomography (CT) scan**: A CT scan is an imaging method that uses x-rays to get detailed pictures of the body.

**Diabetes**: Diabetes is a condition that occurs when the body cannot use glucose (a type of sugar) normally.

**Edema**: Edema is the build up of fluid in the legs that can occur due to liver failure, cirrhosis, and liver cancer.

**Fibrosis**: Fibrosis is the initial scarring of the liver.

**Gastroenterologist**: A gastroenterologist is a doctor who specializes in the study of digestive organs including the liver.

**Hepatitis**: Hepatitis means “inflammation of the liver”.

**Hepatologist**: A hepatologist is a doctor who specializes in the study of the liver.

**Jaundice**: Jaundice is the yellowing of the skin and white part of the eyes.

**Liver**: The liver is the second largest organ in your body. It processes what you eat and drink into energy and nutrients your body can use. The liver also removes harmful substances from your blood.

**Liver biopsy**: A liver biopsy is a medical procedure used to remove a small piece of liver tissue that is studied in the lab to determine the liver’s condition.

**Liver cancer**: Liver cancer is the growth and spread of unhealthy cells in the liver.
Liver failure: Liver failure is the inability of the liver to function and perform its jobs.

Liver function tests: Liver function tests help check the liver’s health and detect liver damage. These blood tests measure the levels of certain proteins and enzymes in the blood. Proteins are large molecules that make sure the body’s organs function properly. Enzymes are protein cells that help important chemical reactions to occur in the body.

ALT: Alanine transaminase (ALT) is an enzyme mainly found in the liver. The ALT test measures the level of ALT in the blood. Consistently high levels of ALT can be a sign of liver swelling or injury.

AST: Aspartate transaminase (AST) is an enzyme found in large amounts in the liver and other parts of the body. The AST test measures the level of AST in the blood. High levels of AST can be a sign of liver damage.

Liver transplant: A liver transplant is the process of replacing a sick liver with a donated, healthy liver.

Nonalcoholic fatty liver disease: Nonalcoholic fatty liver disease (NAFLD) is the build up of extra fat in liver cells that is not caused by alcohol.

Nonalcoholic steatohepatitis: Nonalcoholic steatohepatitis (NASH) is a severe form of nonalcoholic fatty liver disease that causes the liver to swell and become damaged.

Steatohepatitis: Steatohepatitis is extra fat build up in the liver (steatosis) and the swelling of the liver (hepatitis).

Steatosis: Steatosis is the build up of extra fat in the liver.

Triglycerides: Triglycerides are a type of fat found in blood.

Ultrasound: An ultrasound is an imaging technique that uses waves to see inside views of the body.
Questions to Ask Your Healthcare Provider

Having a list of questions to ask a healthcare provider during an appointment can be a helpful tool to remember the important questions to ask. Be sure to bring a pen, this sheet and the notes pages at the end of the guide, or other device (notebook, phone) to write down the answers.

1. What is causing fat to build up in my liver?
2. Do I need to lose weight? If so, what is the percentage of my current body weight I need to lose? How do I do it safely?
3. What diet changes do I need to make if any?
4. Do I need to change my current physical activity level for my condition?
5. What lifestyle changes do I need to make if any?
6. Is it possible to reverse NAFLD in my case?
7. What can I do to slow down the progression of NAFLD?
8. What are symptoms to pay attention to and look out for?
9. How can I manage the symptoms?
10. Will there be pain? Can it be controlled?
11. What symptoms are emergent that I will need to immediately see a healthcare provider for?
12. Do I have NASH? If not, what steps can I take to prevent NASH?
13. What medications or other substances should I avoid?
14. How will you assess whether the NAFLD management/treatment is working for me?
15. How often should I see a liver specialist? Primary care physician?
Resources

The following is a list of resources you might find helpful:

NAFLD Information
  o American College of Gastroenterology: http://www.gi.org/patients/gihealth/fld.asp
    Phone: 301-263-9000
  o American Liver Foundation: http://www.liverfoundation.org/education/info/hepatitisb/
    Phone: 800-465-4837 (800-GO-LIVER)
  o Chronic Liver Disease Foundation: http://www.chronicliverdisease.org/disease_focus/nash-naflfd.cfm
  o Mayo Clinic: http://www.mayoclinic.com/health/nonalcoholic-fatty-liver-disease/ds00577
  o Medicine Net: http://www.medicinenet.com/fatty_liver/article.htm

Medical Referrals
  o American Association for the Study of Liver Diseases:
    http://www.aasld.org/patients/Pages/PhysicianReferralService.aspx
    Phone: 703-299-9766
  o American College of Gastroenterology: http://www.gi.org/patients/phylocator.asp
    Phone: 301-263-9000
  o American Liver Foundation: http://www.liverfoundation.org/chapters/
    Phone: 800-465-4837 (800-GO-LIVER)
    Phone: 800-633-4227 (800-MEDICARE) TTY/TDD: 877-486-2048

Medication Assistance Programs
  o Chronic Disease Fund: http://www.cdfund.org/
    Phone: 877-968-7233
  o Needy Meds: http://www.needymeds.org/
  o Partnership for Prescription Assistance: http://www.pparx.org/
    Phone: 888-477-2669 (888-4PPA-NOW)
  o Together Rx Access: http://www.togetherrxaccess.com/Tx/jsp/home.jsp
    Phone: 800-444-4106

ALF Support Services
  o National helpline: 800-465-4837 (800-GO-LIVER)
  o Support guides: http://www.liverfoundation.org/
  o Resource referrals: 800-465-4837 (800-GO-LIVER)
  o Online support communities: http://www.liverfoundation.org/
Clinical Trials
  o NIH NAFLD clinical trials: [http://clinicaltrials.gov/ct2/results?term=nonalcoholic+fatty+liver+disease](http://clinicaltrials.gov/ct2/results?term=nonalcoholic+fatty+liver+disease)

Research
    Phone: 301-654-3810