

WHAT IS FATTY LIVER?

- Excess fat in the liver (5 to 10% of the liver's weight)
- There are usually no symptoms associated with the condition until it advances and, as a result, most are unaware they have fatty liver
- Fatty liver affects as many as 100 million Americans (including about six million children under the age of 14)
- Fatty liver is too often dismissed as not being a serious condition
- 20-25% of those will see the condition become more serious

SYMPTOMS

There are often no symptoms but one or more of the following may occur:

- Fatigue
- Pain or discomfort in the upper right belly area
- Muscle weakness or loss
- Unexplained weight loss
- Swollen belly or legs
- Jaundice

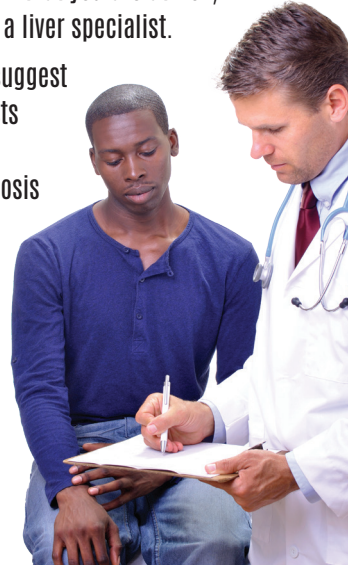
NEED SUPPORT?

LEA runs a support group for patients and caregivers at all stages of liver disease, regardless of the cause of the disease. The support group meets virtually three times per month. Registration from our website is required to join the group - scan the QR code below.



AN ACTION PLAN

- Ensure your diet is healthy for your liver and exercise more. If you are obese or possess excess abdomen fat it is vitally important to begin losing weight.
- Talk to your doctor or nurse about your concerns and ask for a test such as FIB-4 to determine if you are at risk for advanced liver disease.
- If these tests confirm that you are at risk, ask for a referral to a liver specialist.
- The specialist may suggest additional blood tests such as the ELF™ (Enhanced Liver Fibrosis test) or imaging tests including ultrasounds and MRIs to further assess and monitor your condition.



LIVER EDUCATION ADVOCATES

is a non-profit founded by a liver patient with a mission to increase awareness and provide education related to fatty liver.
For more information visit our liveradvocates.org



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HAVE TWO FRIENDS?
Chances are, one of you has a fatty liver, not due to alcohol.



DID YOU KNOW?

People who DO NOT abuse alcohol can develop cirrhosis

Unhealthy diet choices can lead to a fatty liver

Men, women, AND children of all ages can be affected by fatty liver

Most people who have fatty liver have no idea and show NO SYMPTOMS

Normal weight people are also at risk

YOUR LIVER

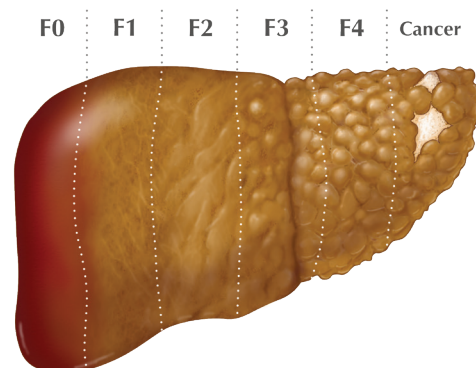
- The liver is located in the abdomen, under the rib cage on the right side
- The liver weighs roughly three pounds and is shaped like a football
- The liver is the hardest working organ in the human body, performing over 500 functions
- The liver's most important functions:
 - Eliminating toxins
 - Processing food and drinks into energy and nutrients
 - Helping control blood pressure
 - Assisting the immune system
 - Regulating blood clotting



DISEASE PROGRESSION

- Fatty liver starts when too much fat (5 to 10% of the liver's weight) builds up in the liver
medical term: NAFLD or MASLD
- Continued fat buildup causes the liver to swell leading to damaged liver tissues
medical term: NASH or MASH
- Over time, scar tissue develops and replaces healthy tissue
medical term: Fibrosis, or F1-F3
- Scar tissue causes the liver to stiffen and reduces blood flow, affecting the liver's ability to function
medical term: cirrhosis, or F4
- Cirrhosis can lead to liver cancer, the need for a liver transplant or can be fatal

FIBROSIS STAGES



TALKING WITH YOUR DOCTOR

Your doctor or nurse may use medical terms when discussing liver disease. The medical terminology is in a state of transition due to the decision to rename liver disease not due to alcohol. Here is a comparison of the old and new terminology.

APPROVED MASH/NASH MEDICATIONS

- In 2024, the FDA approved **Rezdiffra™** for use in patients with moderate to advanced liver scarring (Fibrosis stages 2 and 3).
- In 2025, the FDA approved **Wegovy™** for use in patients with moderate to advanced liver scarring.
- Both drugs are to be used in conjunction with lifestyle changes.
- Your doctor should be consulted regarding which may be more appropriate for your situation. There are two principal differences in the drugs.
 - **Rezdiffra™** is administered in the form of a daily pill. **Wegovy™** requires a weekly shot.
 - **Rezdiffra™** takes action directly in the liver. **Wegovy™** affects the liver by addressing the metabolic system.



PRINCIPAL RISK FACTORS

Medical Factors

- Overweight or Obese (BMI>30)
- Type 2 Diabetes
- Metabolic syndrome which occurs when any 3 of the following are present:
 - Abdominal Fat
 - High Blood Pressure
 - Elevated Sugar Levels
 - Elevated triglycerides and low HDL
- Heart Disease
- Sleep Apnea
- Insulin resistance related to obesity and physical inactivity

Other Factors

- Genetics
- Ethnicity: About 50% of U.S. Hispanics have a fatty liver
- Gender: Males are more likely to have a fatty liver than females
- Exposure to toxins

WHAT CAUSES LIVER FAT?

- Unhealthy Diet
 - Too much sugar
 - Too much processed food
 - Not enough fiber
 - Too many carbs
- Not enough exercise

FATTY LIVER CAN BE REVERSED THROUGH LIFESTYLE CHANGES

- Losing 5 to 10% of your body weight, though difficult, is usually the best thing you can do
- Other changes are also effective:
 - Reducing sugar in your diet
 - Reducing refined carbohydrates
 - Eliminating alcohol
 - Controlling blood pressure, triglycerides, and blood sugar
- Regular physical activity, including aerobic and resistance training
- Early detection is critical
- As scar tissue replaces healthy tissue, liver disease becomes harder to reverse
- Reversal is unlikely once cirrhosis develops

CHILDREN ARE ALSO AT RISK

- It's estimated that up to 10% of children have fatty liver, largely due to obesity
- Normal weight children can also develop fatty liver
- Fatty liver in children is linked to the excessive intake of sugar

It Affects

- 38%** of obese children
- 1%** of 2 to 4-year-olds
- 17%** of 15 to 19-year-olds
- 8%** of normal weight teens



OLD TERMS

- Fatty Liver Disease
- Nonalcoholic Fatty Liver Disease (NAFLD)
- Nonalcoholic Steatohepatitis (NASH)

NEW TERMS

- Steatotic Liver Disease
- Metabolic Dysfunction-Associated Liver Disease (MASLD)
- MASLD + Moderate Alcohol Consumption (MetALD)
- Metabolic Dysfunction-Associated Liver Steatohepatitis (MASH)