





## Why is the liver important?

Your liver is a vital organ that performs many essential functions. It is the largest solid organ in the body and is located under your rib cage on the upper right side. It weighs about three pounds and is shaped like a football that is flat on one side.

Your liver processes everything you eat, drink, breathe and absorb through your skin. It builds the hormones, proteins and enzymes your body uses to function and fight off disease. It also turns nutrients into energy your body can use and removes any harmful substances from your blood.

## How do I maintain a healthy liver?

There are many things you can do to maintain good liver health:

- Choose a diet that includes fresh fruits, vegetables and grains and eliminate any "junk" food.
- Add some form of exercise into your daily life.
- · Limit the amount of alcohol you drink
- Properly manage your medications and supplements.
- Get vaccinated, tested and, if necessary, treated for viral hepatitis.
- Use caution and avoid chemical exposures that can affect liver health.

### Diet and Metabolic Syndrome

Metabolic syndrome is considered a group of illnesses that can be associated with unhealthy eating habits. Eating too many calories per day can result in obesity. Unhealthy food choices can lead to health threats such as type 2 diabetes, high blood pressure and high cholesterol/triglycerides.

People with some or all of the medical conditions above are at high risk for developing excess fat in the liver. When excess fat develops because of causes unrelated to alcohol, it is called nonalcoholic fatty liver disease, or NAFLD for short. Over time, people with NAFLD can develop a more serious condition called NASH, or nonalcoholic steatohepatitis, in which the liver becomes enlarged and at risk for scarring, or fibrosis. Fibrosis is the stage of liver disease before cirrhosis or advanced scarring of the liver.

The good news is that by learning how to eat in a healthier way, the impact of metabolic syndrome and NAFLD can be reduced. NAFLD can be reversed with attention to diet resulting in slow and steady weight loss. Moderate exercise can also help people reach and maintain a healthy weight.



#### What should I eat?

A healthy diet is one that provides enough calories and nutrition for the body to function well. "Junk food" and processed foods like frozen dinners and fast food contain a lot of calories from unhealthy fats, sugars and salt and are not good sources of vitamins, minerals, fibers or healthy fats. Here are some basic tips for eating a healther diet:

- Try to eat several servings of fruits and vegetables daily.
- Look for foods that contain whole grains vs. refined grains. Whole grains have more nutritional value and tend to be more filling than refined grains. Whole grains include whole wheat bread and flour, oatmeal, brown rice and whole wheat pasta. Refined grains include white bread and flour, white rice and white pasta.
- Eat healthy protein foods like fish, skinless chicken breast, lean beef, legumes (lentils and beans), tofu and nuts.
- Try healthy dairy products like low-fat milk, yogurt or cottage cheese.
- Use healthy fats in your diet. These can be found in olive oil, flaxseed oil, sunflower oil, canola oil and corn oil. Nuts, avocados and certain fish also contain healthy forms of fat. Limit saturated fats found in products that are solid at room temperature like butter, margarine or shortening.
- Visit <a href="https://www.myplate.gov/">https://www.myplate.gov/</a> for helpful information about healthy eating.

#### How does alcohol affect the liver?

The liver breaks down alcohol so it can be eliminated from your body. Some of the byproducts of this process are toxic and when present in high concentrations, can trigger inflammation and injury to liver cells.

Drinking large amounts of alcohol over time or on a single occasion can lead to liver damage and advanced liver disease. Alcohol-related liver damage can take on many forms:

- Alcohol-related fatty liver caused when fat builds up in the liver due to consuming unhealthy amounts of alcohol
- Alcohol-related hepatitis inflammation or swelling of the liver
- Alcohol-related cirrhosis severe scarring of the liver that can lead to liver failure

### Is there a safe level of drinking?

According to the American Dietary Guidelines, moderate drinking is one drink a day for women and two drinks a day for men. The alcoholic beverages and amounts shown below are considered one drink and each contain the same amount of alcohol.



For people who have liver disease, even a small amount of alcohol can make their disease worse.

Binge drinking is defined as consuming four (women) or five (men) alcoholic beverages within two hours. This pattern of drinking can lead to temporary or permanent liver damage.

It's important to note that alcohol, in any amount, can be dangerous for someone with liver disease of any kind.

## What is viral hepatitis and how does it affect the liver?

Hepatitis viruses are contagious, meaning they can spread from person to person. Hepatitis A, B and C are the most common types of viral hepatitis in the USA. Coinfection (having more than one virus at the same time) can happen, such as having Hepatitis B and C, or Hepatitis B and D.

Vaccines are available to prevent Hepatitis A and B. While there is no vaccine to prevent Hepatitis C, there are treatments that can cure most people with this disease. Left undiagnosed and untreated, Hepatitis B and C can lead to cirrhosis. For more information about how to prevent viral hepatitis, testing and treatment visit <a href="https://www.liverfoundation.org">www.liverfoundation.org</a>.

### How can medications affect liver health?

Your liver processes everything you eat, drink,



breathe and absorb through your skin. This includes any medication you take:

- · Over-the-counter medication, like aspirin
- Prescription medication
- Vitamins
- Dietary supplements
- · Alternative medicine, like herbs

The liver can be injured if we take medication incorrectly or mix them with other products that can create a toxic combination. It is very important to learn about your medications to prevent drug-related liver injury:

- Read the directions and take the correct dose at the right time. More is not better!
- Follow directions about taking with or without food.
- Find out whether or not there are certain things you should avoid, including alcohol.
- Find out how your medications interact with each other and if there are things you should take at a different time of the day.
- Tell your doctor about all the medicines you're taking (prescription, over-thecounter, vitamins and supplements) and check with them before making a change to your daily routine.
- Never start or stop taking a medication or supplement without consulting a physician.

# How can I avoid liver damage from toxic substances?

The liver processes what you breathe in and absorb through your skin so it is important to be careful when using cleaning products,

aerosol sprays, insecticides and other chemicals.

Overexposure to toxins in these products can be harmful so follow directions carefully when using them. Many of these products should be used in well-ventilated areas to limit how much you inhale. In addition, limit direct chemical contact with your body. Wear gloves or protective coverings when indicated.

Use cosmetics, lotions, sunscreens and other products that are made with safe ingredients. Look for products that contain natural or organic ingredients as opposed to those containing harsh chemicals.

When medications are taken incorrectly — by taking too much, taking the wrong type or by mixing them — your liver can be harmed. People who have liver disease need to be especially careful, as some medications may cause more damage to their liver or may not be processed properly.

## Keep your liver healthy!

Your liver is a vital organ that performs functions essential to your health and well-being. Do your part to keep you liver healthy by following the suggestions outlined above. If you have questions about liver wellness, call the American Liver Foundation's National Helpline at 1-800-GO-LIVER or visit our website, liverfoundation.org.





### **National Helpline** 1-800-GO-LIVER (1-800-465-4837)

liverfoundation.org info@liverfoundation.org

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