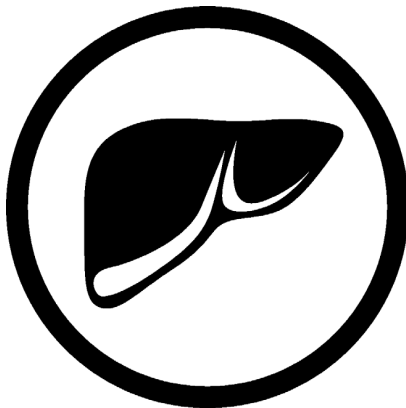


Fatty Liver Disease and Nutrition

Diet changes to improve liver health

This handout lists recommendations for diet and exercise changes that can help keep your liver healthy. This handout is for patients experiencing fatty liver, non-alcoholic fatty liver disease (NAFLD), non-alcoholic steatosis (NASH), and cirrhosis.



The liver is an important organ that helps filter and remove toxins from the body.

What does the liver do?

The liver does many things, such as:

- Filtering your blood and removing toxins like alcohol.
- Processing, making, and storing nutrients for later use.
- Keeping your immune system strong.
- Helping you heal from injuries.

What is fatty liver disease?

- Fatty liver disease is when fat builds up in the liver. This can lead to liver damage and *cirrhosis* (end-stage liver disease).
- Fatty liver disease can also cause *inflammation*. Inflammation happens when the body tries to heal damaged tissues. Chronic (long-term) inflammation can lead to issues such as damaged liver tissue cells.
- Fatty liver disease can be caused by excess weight, high blood sugar, alcohol consumption, or high cholesterol.

What can I do about fatty liver?

Changes in diet and exercise can lead to improved liver health, especially in people with a BMI in the overweight or obese categories.

Weight loss:

- If you are overweight, lose weight slowly (about 1 to 2 pounds a week) unless your primary care provider (PCP) recommends otherwise.
- Aim to lose up to 5 to 10% of your body weight over 6 months.

Exercise:

- If your PCP says it is okay to exercise, aim for 150 minutes a week (about 20 minutes a day) of exercise or activity that increases your heart rate.
- Talk to your doctor about increasing your daily exercise and recommendations for heart rate goals.

Other lifestyle changes:

- Limit drinking alcohol (1 or fewer drinks a day for women, 2 or fewer drinks a day for men).
- Limit added sugar and use low-fat or fat-free dairy products.

Building a Healthy Plate

- Use the American Diabetes Association plate guide below to build your healthy plate.
- **Vegetables** (no portion limit): carrots, green beans, lettuce, spinach, tomatoes, cauliflower, broccoli, etc.
- **Lean Protein** (about the size of your palm): chicken, turkey, fish, eggs (1 to 2 per day), lean beef, low-fat or fat-free cheese
- **Carbohydrates** (about the size of your fist): rice, grains, fruits, squash, potatoes, peas, bread, tortillas, beans
- Choose foods low in added sugar. Eat fruit to add fiber to your diet and limit soda, candies, and sweets.

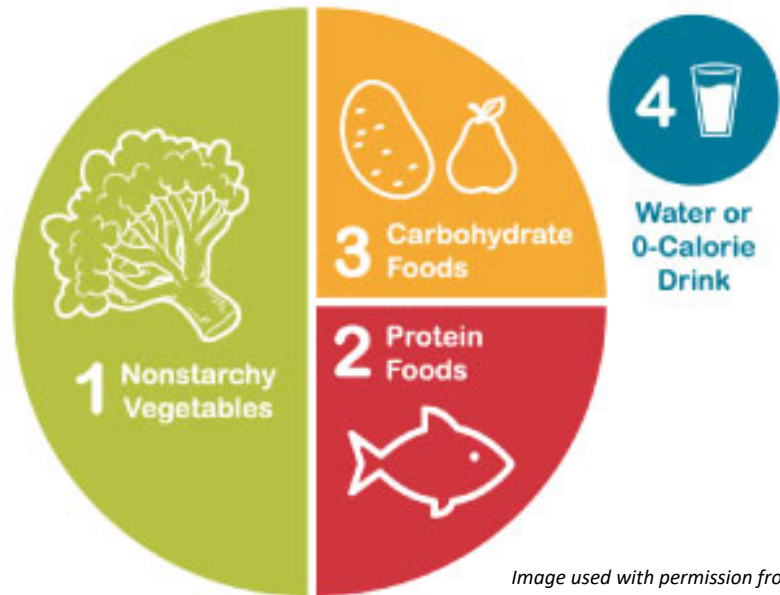















Image used with permission from the American Diabetes Association. Copyright 2023 by the American Diabetes Association.

Sodium

- Limit salt to less than 2,300 mg of sodium per day.
 - 1 pinch of salt = 300 mg of sodium.
 - Reducing salt intake helps lower blood pressure and limit fluid retention (*edema*).

Choose These Types of Fat		
Type of Fat	Sources	Effect on Inflammation
Omega-3 Polyunsaturated Fats (also called O-3 or PUFA)	Fish (canned or fresh), fish oil, chia seeds, walnuts, and eggs (limit 2 a day) 	Suppress inflammation
Monounsaturated Fats (also called omega-9 or MUFA)	Olive oil, canola oil, sesame oil, avocado  	Neutral for inflammation
Omega-6 Polyunsaturated Fats (also called O-6 or PUFA)	Sunflower seeds, nuts, corn, and soy beans (edamame)   	Too much will promote inflammation

Avoid These Types of Fat		
Type of Fat	Sources	Effect on Inflammation
Saturated Fats	Meat (such as pork and beef), skin-on poultry, full-fat dairy, palm and coconut oil    	Promote inflammation
Hydrogenated and Trans Fats	Margarine, shortening, cookies, candy bars, cakes, fast food   	Dramatically promote inflammation

Choose These Foods

Food Group	Food Choices
Dairy	<ul style="list-style-type: none"> • Fat-free or low-fat dairy (including lactose-free options) such as: Skim milk, 1% milk, 1% buttermilk, low-fat half and half • Fat-free or low-fat yogurt or cottage cheese • Lactose-free, low-fat yogurt or lactose-free, low-fat cottage cheese • Fat-free or low-fat cheese • Fat-free or low-fat sour cream, ice cream, and frozen yogurt
Fruits and Vegetables	<ul style="list-style-type: none"> • Fresh fruits and vegetables • Frozen, canned, or dried fruit with no sugar added • Frozen or canned vegetables labeled as "Low sodium" or "No salt added"
Grains	<ul style="list-style-type: none"> • Products labeled as "whole grain" including breads, cereals, pasta, and crackers • Brown rice, oats, and barley • Low-fat crackers and pretzels
Proteins	<ul style="list-style-type: none"> • Lean cuts of beef and pork (loin, leg, round, extra-lean hamburger 90:10) • Skinless poultry • Fish, fresh or canned (packed in water) • Venison and other wild game • Dried beans and peas • Meat alternatives made with soy or textured vegetable protein • Egg whites or egg substitute • Low-sodium cold cuts made with lean meat or soy protein
Fats and Oils (Use sparingly)	<ul style="list-style-type: none"> • Unsaturated oils (olive, peanut, soy, sunflower, canola) • Soft or liquid margarines and vegetable oil spreads • Salad dressings, seeds and nuts, avocado

Avoid These Foods

Food Group	Food Choices	
Dairy	<ul style="list-style-type: none"> • Whole milk and reduced-fat (2%) milk • Whole milk yogurt • Ice cream 	<ul style="list-style-type: none"> • Cream and half-and-half • Cream cheese • Sour cream • Cheese
Fruits and Vegetables	<ul style="list-style-type: none"> • Fried fruits or vegetables • Fruit served with whole fat dairy 	<ul style="list-style-type: none"> • Fresh, frozen, or canned vegetables prepared with butter, cheese, or cream sauce
Grains	<ul style="list-style-type: none"> • High-fat bakery products such as doughnuts, biscuits, croissants, pastries, pies, and cookies 	<ul style="list-style-type: none"> • Snacks made with partially-hydrogenated oils such as chips, cheese puffs, snack mixes, regular crackers, and butter-flavored popcorn
Proteins	<ul style="list-style-type: none"> • Higher-fat cuts of meats (ribs, T-bone steak, regular hamburger) • Bacon • Sausage • Cold cuts, such as salami or bologna • Corned beef 	<ul style="list-style-type: none"> • Hot dogs • Organ meats (liver, brains, sweetbreads) • Poultry with skin • Fried meat, poultry, and fish • Whole eggs and egg yolks
Fats and Oils	<ul style="list-style-type: none"> • Butter • Stick margarine or shortening • Partially-hydrogenated oils 	<ul style="list-style-type: none"> • Tropical oils (coconut, palm, and palm kernel oils) • Trans-fats (found in fast food)

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Outpatient Consult line: Call 206.635.8346 weekdays from 8 a.m. to 4 p.m.