



Nutrition Therapy for Cardiovascular Disease

Heart-Healthy Diet

A heart-healthy diet is recommended to reduce unhealthy cholesterol levels, manage high blood pressure, and lower your risk for disease-related complications. The heart-healthy diet is low in sodium (salt) and unhealthy fats, but rich in lean protein, low-fat dairy products, fruits, vegetables, whole grains, and nuts. Read below to learn about how you can modify your food choices to better reflect a heart-healthy diet!

Sodium

Your body needs a little sodium, but too much sodium can cause your body to hold onto extra water. This extra water will raise your blood pressure and can cause damage to your heart, kidneys, or liver as they are forced to work harder. Sometimes you can see how the extra fluid affects you because your hands, legs, or belly swell. You may also hold water around your heart and lungs, which makes it hard to breathe. Even if you take medication for blood pressure or a water pill (diuretic) to remove fluid, it is still important to have less salt in your diet.

It is generally recommended to limit your sodium intake to less than 2,300 milligrams per day, which is equivalent to just **1 teaspoon** of table salt!

Salt is hidden in many food items. Some foods that are high in sodium don't even taste salty! It's important to read food labels to find out how much sodium is in 1 serving of the foods you're eating.

Aim to select foods with 140 mg of sodium or less per serving. **Avoid foods with more than 300 mg of sodium per serving.**

Make sure you are checking the serving sizes. If you eat more than 1 serving, you will be consuming more sodium than the amount listed.

Compare food labels of alike packaged food items while grocery shopping. Choose products with the least amount of sodium per serving.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	
Potassium 240mg	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



Tips for Limiting Sodium in Diet:



Avoid processed foods.

- Choose fresh or frozen fruits and vegetables without added juices or sauces.
- Choose fresh meats. These foods are lower in sodium than processed meats, such as bacon, sausage, and hot dogs. Read the nutrition label to help you find fresh meat that is low in sodium.
- Cook foods from scratch instead of eating prepared foods, fast foods, frozen dinners, and canned foods.
- Rinse canned vegetables, beans, meats, and fish with water to remove extra sodium.

Do not add salt while preparing and/or eating meals.

- Season foods with other herbs and spices such as basil, bay leaf, dill, rosemary, parsley, sage, dry mustard, nutmeg, thyme, paprika, black pepper, red pepper flakes, cayenne pepper, etc.
- Try adding lemon juice, lime juice, fruit juice, or vinegar.

Be a smart shopper. Choose food packages that include the following claims

- Food packages that say “Salt-free”, sodium-free”, “very low sodium,” and “low sodium” have less than 140 milligrams of sodium per serving.
- Beware of products identified as “Unsalted,” “No Salt Added,” “Reduced Sodium,” or “Lower Sodium.” These items may still be high in sodium. You should always check the nutrition label.

Choose foods carefully when you eat outside your home.

- Many restaurants provide nutrition facts on their website or upon request.
- Request that your food be prepared without salt.
- Ask for your salad dressings and sauces to come on the side.

	Foods that are HIGHER in sodium	Foods that are LOWER in sodium
FRUITS	Dried fruits preserved with sodium-containing additives.	Fresh, canned, or dried fruits
VEGETABLES	Canned vegetables that are high in sodium Frozen vegetables with seasoning and sauces Sauerkraut, pickles, and other pickled vegetables such as kimchi French fries and onion rings that contain sodium	Fresh and frozen vegetables without added sauces, salt, or sodium Low-sodium or sodium-free canned vegetables
GRAINS	Breads or crackers topped with salt Cereals (hot/cold) with more than 300 milligrams of sodium per serving Biscuits, cornbread, and other “quick” breads prepared with baking soda Prepackaged bread crumbs	Breads with less than 80 mg sodium per slice Homemade bread made with reduced sodium baking soda Cereal such as shredded wheat and puffed rice

	Foods that are HIGHER in sodium	Foods that are LOWER in sodium
GRAINS	<ul style="list-style-type: none"> Pre-seasoned rice and noodles Self-rising flours Salted pretzels and popcorn 	<ul style="list-style-type: none"> Oats, grits, cream of wheat Pasta, noodles, quinoa, rice Unsalted popcorn, pretzels, and crackers
PROTEIN FOODS	<ul style="list-style-type: none"> Cured meats: bacon, ham, sausage, pepperoni, salt pork, and hot dogs Canned meats: chili, Vienna sausage, sardines, and ham Smoked fish and meats Luncheon meats 	<ul style="list-style-type: none"> Fresh meats, poultry, and fish Eggs or egg beaters (if less than 200 mg per serving) Turkey bacon (if not packaged in a sodium solution) Low-sodium/no salt added canned or packed tuna (no more than 4 ounces at 1 serving) Unsalted beans, lentils, or peas Soy foods such as tofu, tempeh, or unsalted soy nuts Unsalted nuts or nut butter
DAIRY & DAIRY ALTERNATIVES	<ul style="list-style-type: none"> Buttermilk Processed cheeses Cottage cheese (unless a low-sodium variety) Feta cheese; shredded cheese (has more sodium than block cheese); singles slices and string cheese 	<ul style="list-style-type: none"> Milk or milk powder Fortified soy milk Yogurt, including Greek and soy yogurt Small amounts of natural reduced-sodium cheese (Swiss, ricotta, and fresh mozzarella are lower in sodium than others) Cream cheese Low-sodium cottage cheese
FATS & OILS	<ul style="list-style-type: none"> Salted butter or margarine Olives 	<ul style="list-style-type: none"> Unsaturated vegetable oils, including olive, peanut, and canola oils Vegetable oil-based margarine and spreads Low-sodium salad dressing and mayonnaise made from unsaturated vegetable oils Simple salad dressings (vinegar and oil) Unsalted butter and margarine
CONDIMENTS	<ul style="list-style-type: none"> Salt, sea salt, kosher salt Onion and/or garlic salt Seasoning mixes containing salt (lemon pepper or bouillon cubes) Catsup or ketchup BBQ sauce Worcestershire sauce 	<ul style="list-style-type: none"> Fresh or dried herbs Low-sodium ketchup Vinegar Lemon or lime juice Pepper Salt-free seasoning mixes and marinades (salt-free seasoning blend)

	Foods that are HIGHER in sodium	Foods that are LOWER in sodium
CONDIMENTS	Salsa Pickles Relish Salad dressings: ranch, blue cheese, Italian, and French Soy sauce	Salt-free sauces
OTHER	Canned or dried soups (that are not salt free or low sodium) Frozen meals that have more than 600 milligrams sodium Regular potato chips and other salty snack foods Regular bouillon cubes	Homemade soups (salt-free or low-sodium) Frozen meals that have less than 600 milligrams sodium Unsalted chips Sodium-free bouillon cubes

Dietary Fats

Eating the right types of fat and avoiding the unhealthy ones helps to reduce the buildup of plaque in your blood vessels, which lowers your risk for strokes or heart attacks.

Unhealthy Fats: *raise cholesterol levels*

- **Saturated fats:** found in animal products
 - Solid at room temperature
- **Tran fats:** found in stick margarine, shortening, processed sweets, baked goods, and packaged foods made with **partially hydrogenated** oils



Healthy Fats: *improve blood cholesterol levels, ease inflammation, stabilize heart rhythms, and play a number of other beneficial roles*

- **Unsaturated fats:** found in fish, avocados, nuts, seeds, and vegetable oils
 - Liquid at room temperature
 - 2 types: polyunsaturated fats and monounsaturated fats



Swapping foods that do not contain large amounts of unhealthy fats to replace foods high in unhealthy fats will help improve your cholesterol levels. Try these easy swaps:

Instead of	Try
<ul style="list-style-type: none"> Whole milk or full-fat cheese, yogurt, and ice cream 	<ul style="list-style-type: none"> Skim or 1% milk, low-fat cheese, non-fat yogurt, and low-fat ice cream
<ul style="list-style-type: none"> Fatty, marbled beef, and pork 	<ul style="list-style-type: none"> Lean cuts of beef or pork without much marbling or external fat. Examples of lean cuts of meat include round steak, tenderloin, and sirloin tips.
<ul style="list-style-type: none"> Poultry with skin 	<ul style="list-style-type: none"> Poultry without skin, fish and seafood
<ul style="list-style-type: none"> Butter, stick margarine, or solid shortening 	<ul style="list-style-type: none"> Reduced-fat, whipped, or liquid spreads
<ul style="list-style-type: none"> Coconut oil or palm oil 	<ul style="list-style-type: none"> Liquid vegetable oils: corn, olive, soybean, and safflower oils
<ul style="list-style-type: none"> Chips, crackers, cookies, and other junk foods 	<ul style="list-style-type: none"> Raw or unsalted nuts and seeds like almonds, walnuts, pumpkin seeds, etc. Vegetables with hummus Avocado on toast

Other Tips for Limiting Intake of Unhealthy Fats:

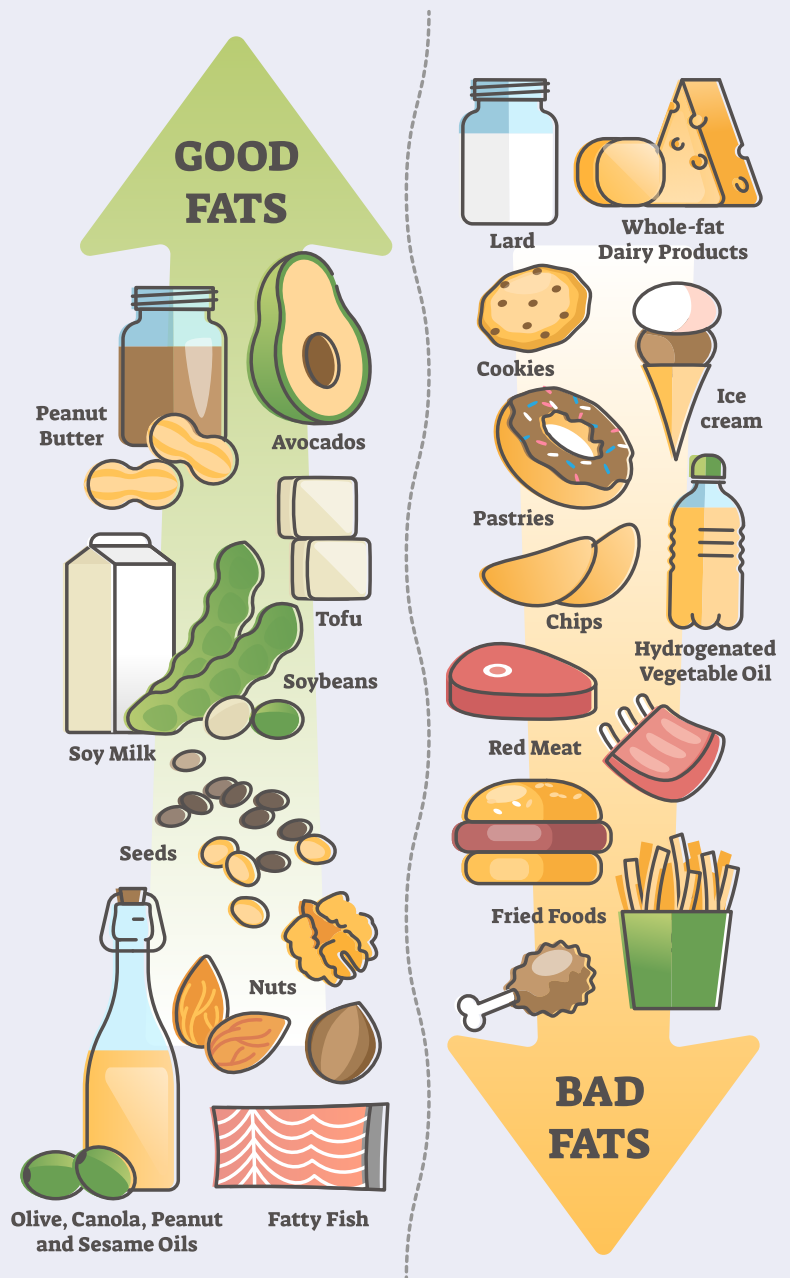
- Remove the fatty parts of meat and poultry before cooking
- Bake, broil, roast, stew, or stir-fry lean meat, fish, and poultry
- Drain fat after cooking ground meat or poultry
- When making stews or soups, refrigerate the broth and skim off the fat with a spoon before reheating and serving
- When cooking foods on a griddle or a frying pan, brush the pan with cooking oil just to coat it. Or, use a nonstick spray of vegetable oil or a nonstick pan that requires no greasing
- Eat fish regularly. Try different ways to cook it so that you'll enjoy it more:
 - Grill salmon on skewers
 - Dip tilapia in 1% or skim milk and egg whites, then dip in bread crumbs and saute in a pan sprayed with oil
 - Bake white fish and vegetables sealed in foil
 - Poach white fish in 1% or skim milk, water, or juice
 - Broil tuna and then squeeze lemon juice on it
 - Marinate white fish for 15 minutes in Italian dressing, then bake
- Get protein from plant foods or egg whites instead of meat
 - Add tofu or pea protein crumbles to chili and spaghetti sauce
 - Use tofu or tempeh in a stir-fry with lots of vegetables
 - Make soups with edamame, lentils, split peas or dried beans
 - Make an omelet with green peppers, tomatoes, and onions
 - Add nuts and seeds to salads and vegetables
- Avoid processed foods, fried foods, fast foods, convenience foods, and sweets
- Read food labels



Aim to choose foods with less than **5 grams of total fat**, less than **2 grams of saturated fat**, and **0 grams of trans fat**.

Note: Food labels can claim the amount of trans fat as 0g if the product has less than 0.5g of trans fat per serving. Check the ingredients list (under the food label) and avoid any foods with “hydrogenated oil” listed.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	
Potassium 240mg	



Carbohydrates

Along with proteins and fats, carbohydrates are one of the three main nutrients found in foods and drinks. There are three types of carbohydrates: starches, sugar, and fiber.

Foods that are high in carbohydrates include:

- Grains (bread, crackers, rice, pasta, cereals)
- Starchy vegetables (potatoes, corn, peas)
- Beans and legumes
- Milk, soy milk, and yogurt
- Fruit and fruit juice
- Sweets (cakes, cookies, ice cream, jam, and jelly)



	Refined Carbohydrates	Fibrous Carbohydrates
Description	<ul style="list-style-type: none"> Sugars or grains that have been processed and stripped of its natural ingredients like fiber, vitamins, and minerals. 	<ul style="list-style-type: none"> Fiber is a type of carbohydrate that cannot be broken down into sugar, unlike other carbohydrates. Fiber instead, passes through the body undigested. Found in plant foods like whole grains, fruits, vegetables, and legumes
Health Effect	<ul style="list-style-type: none"> Can raise triglyceride levels when eaten in excess. High triglyceride levels are associated with coronary heart disease, diabetes, and fatty liver. 	<ul style="list-style-type: none"> Regulates blood sugar Prevents constipation Lowers cholesterol levels Keeps you fuller for longer
Food Sources	<ul style="list-style-type: none"> White bread White flour White rice Regular pasta Pizza dough Sugar: white sugar, Corn syrup, brown sugar, high fructose corn syrup, etc Cakes, biscuits, pastries, pies Sugar-coated breakfast cereals Beverages sweetened with sugar Candy 	<ul style="list-style-type: none"> Wheat flour Whole grain or whole wheat bread Brown rice Quinoa Whole wheat pasta Oatmeal Barley Farro Bran cereal Beans and legumes: black beans, pinto beans, white beans, chickpeas, lentils, etc. Nuts and seeds: almonds, walnuts, peanuts, chia seeds, flax seeds, etc. Fruits: apples, berries, apricots, mangos, pears, avocados, oranges, prunes etc. Vegetables: asparagus, broccoli, Brussels sprouts, sweet potatoes, leafy greens, carrots, cauliflower, cabbage, eggplant, etc.

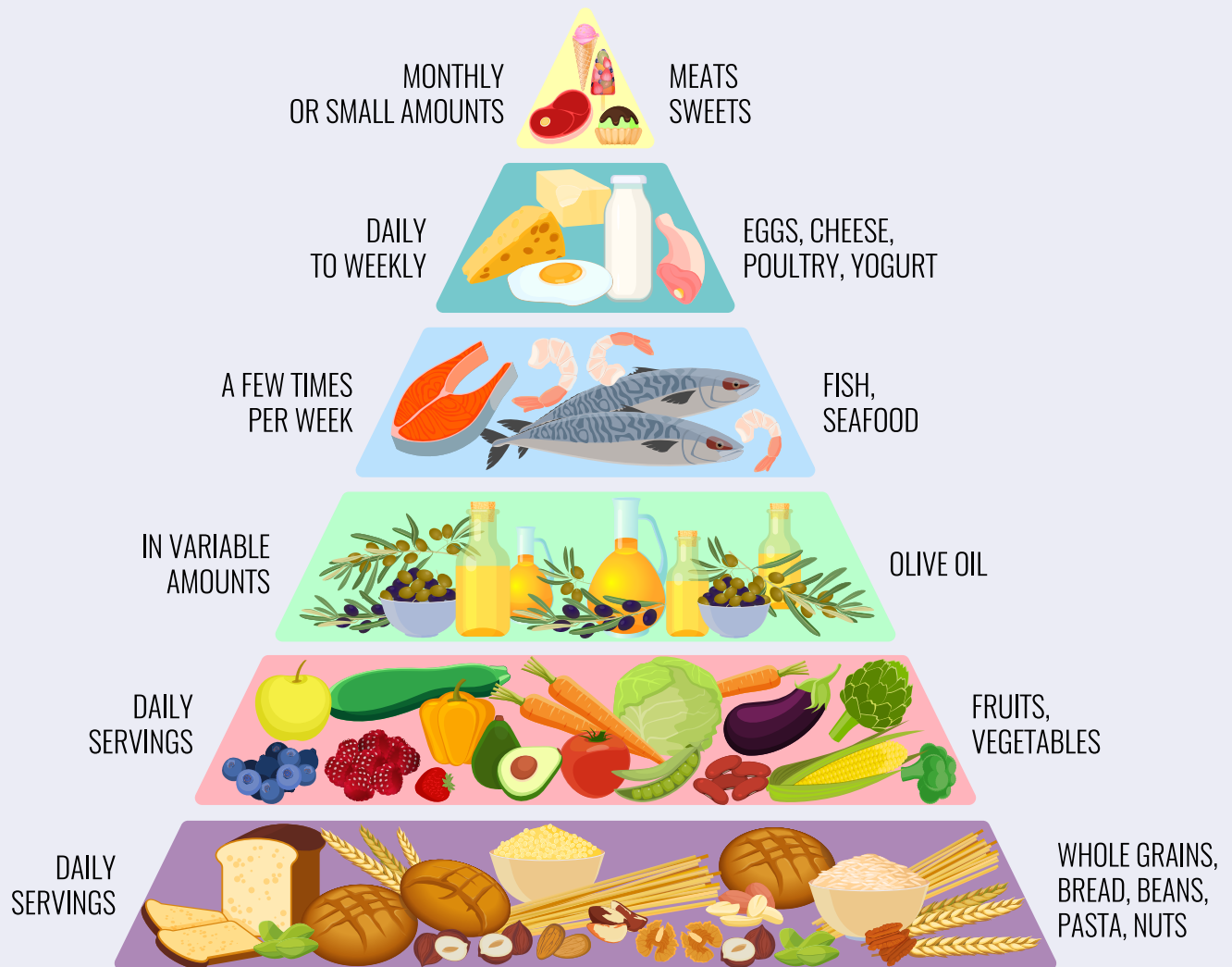
Tips to increase your daily fiber intake: aim for 25-30 grams of fiber per day

- Make at least 50% of the grains you consume come from whole-grain products, like brown rice, quinoa, oats, and whole-wheat bread or pasta.
- Fill half your plate with colorful fruits and vegetables at meal times. Examples of high-fiber fruits and vegetables include apples, berries, bananas, broccoli, carrots, cauliflower, Brussels sprouts, pears, prunes, and leafy greens.



- Incorporate legumes, nuts, and seeds into your diet by
 - Adding almonds or walnuts to a salad
 - Including dried beans in soup
 - Mixing ground flax seeds or chia seeds in a smoothie
 - Dipping vegetables in bean dip or hummus for a snack
 - Snacking on unsalted nuts like almonds, walnuts, peanuts, etc.
 - Spreading peanut butter or another nut butter on whole grain bread
 - Snacking on edamame
- Eat whole fruit rather than drinking fruit juice

THE MEDITERRANEAN DIET PYRAMID



DAILY PHYSICAL ACTIVITY AND WALKING

Disclaimer: Please note that the information provided herein is intended to serve as a general guideline and may not meet the unique nutritional needs of individual patients. The distribution of these materials is at the discretion of the physician. The creator does not hold responsibility for their application or outcomes on individual health conditions. All patients are advised to consult with their physician for personalized advice tailored to their unique needs and circumstances.