

Heart-Healthy Nutrition

Coronary artery disease (CAD) is a leading cause of death in the United States. In CAD, fat and cholesterol (plaque) build up inside the arteries. This causes the blood flow to slow down or even become blocked. These changes in blood flow may cause chest pain, heart attacks or stroke. They may also damage blood vessels, leading to vascular disease.

There are 2 types of cholesterol: LDL and HDL.

- **LDL or Low Density Lipoprotein** is known as “bad” cholesterol. A diet high in saturated and trans fats raises LDL levels. This increases the risk of heart disease. **A low LDL cholesterol level is considered good** for your heart health.
- **HDL or High Density Lipoprotein** is known as “good” cholesterol. HDLs help rid the body of cholesterol. **A higher HDL cholesterol level is considered good** for your heart health.

A sedentary lifestyle, smoking, obesity, a large waist circumference, sugar sweetened foods and drinks lower the HDL cholesterol which increases the risk of heart disease. Diabetes may also increase this risk. Please talk with your doctor about your individual risk factors and blood cholesterol levels.

Triglycerides are a type of fat in your body. Sugar, alcohol, excess weight and saturated fat may increase these levels. High triglyceride levels increase your risk of heart attack.

The NMH brochure *Risk Reduction for Heart and Vascular Disease* explains how to lower the risk of CAD. Choosing healthy foods is one way to do so. This brochure will help you learn how.

Food Definitions

Learning more about fats found in foods will help guide you in making good food choices. Read food labels to find out if your food choices include any of these listed below. In general, it's best to look for foods that have low or zero amounts of saturated and trans fat.

- **Monounsaturated and Polyunsaturated fats.** Unsaturated fats are **good** types of fats to include in your diet. They may help to lower LDL levels. Examples include: walnuts, almonds, peanuts, avocados; and vegetable oils such as peanut, safflower, sunflower, corn, olive, soybean, sesame and cottonseed oils.



Avocados and unsalted peanuts and walnuts are healthy choices.



- **Saturated fat** is a “**bad**” fat that raises LDLs. It is common in animal fats. A few vegetable oils are high in saturated fat, including coconut oil, palm oil, palm kernel oil and cocoa butter. This type of fat is generally solid at room temperature. **It is best to eat foods low in saturated fat.**
- **Trans fat** is a “**bad**” fat that raises LDLs. It is found in some fried foods and packaged foods made with hydrogenated oils. It is also found in shortening, butter, or stick margarine. Choose reduced-fat, whipped or liquid spreads instead.

Cholesterol is only found in foods from animals, such as meat, eggs and dairy. Some of these foods may also be high in saturated fat. If you have heart disease, ask your doctor if you need to limit your intake of foods containing cholesterol.

Plant sterols and plant stanols are found in plant oils and may decrease LDL (bad) cholesterol. Good sources include some butter substitutes, vegetable oils, nuts and soybeans.

Fiber has many health benefits. Sources include fruits, vegetables, whole grains, nuts, seeds, beans and legumes. (See list on page 5 to learn about the amount of fiber in foods.) There are 2 main types of fiber:

- **Soluble fiber** helps lower LDL (bad) cholesterol. Sources include oats, beans and fruit.
- **Insoluble fiber** helps prevent constipation and may help prevent some types of bowel disease. This type of fiber is found in whole grains, brown rice and vegetables. Insoluble fiber may also help to keep blood sugar levels stable for diabetics.

Keys to Heart Health

Lifestyle and diet changes help to reduce the risk of CAD. Some tips to help you include:



Strive for a healthy weight.



Activity improves blood flow to the heart.

- Maintain a healthy body weight. Talk with your doctor or dietitian about what a healthy weight is for you. Set goals to reach and maintain that weight.
 - Start by asking how many calories you should be eating and drinking to achieve and maintain your desired weight. Refer to the NM brochure: *Managing Your Weight: Portion Control*.
 - Don't eat more calories than you know you can use up every day.
 - Set a plan to increase your activity. Aim for at least 45 minutes of exercise 5 times a week. Start with walking or other aerobic activities like running, bicycling or swimming. These increase the flow of blood to your heart. Then add weights as recommended by your doctor. For more information, refer to the NM brochures: *Exercise and Your Heart* and *Managing Your Weight—Tracking Your Activity*.
- Eat whole grains, lean protein, fruits, and vegetables daily. Aim for 1½ to 2 cups of fruits and 2 to 3 cups of vegetables per day.
- Try to eat fish twice a week.

- Eat more omega-3 fats (heart-healthy fats). Sources include salmon, tuna, mackerel, walnuts, flaxseeds, or canola oil.
- Try more meat-free meals, using dried beans, lentils, legumes, and soy (tofu, tempeh) foods for protein.
- When eating out, choose foods that are steamed, baked or broiled and without added butter, salt, sauce, cream or gravy.
- Eat foods high in fiber. Women, try to take in at least 25 grams of fiber a day. Men should aim for 35 grams of fiber a day. Look for foods with more than 3 grams of fiber per serving. 10 to 25 grams should be soluble fiber.
- Limit salt (sodium) to 1500 to 2300 mg per day. Choose and prepare foods with little or no salt.
- Limit the amount of fat, especially saturated fat and trans fat. Of your total daily calories, no more than 25 to 35 percent should come from fat. And no more than 5 to 6 percent of your total calories should come from saturated fat. If you take in 2,000 calories a day, your total fat intake can be between 50 to 75 grams a day and saturated fat should be about 11 to 13 grams a day.
- Avoid processed or fried foods. They often contain high amounts of salt and fat.
- Limit the amount of sugar. Sugar adds calories that can lead to weight gain, which affects the health of your heart. Read food labels for sugar content. **For women:** Try not to take in more than 6 teaspoons of sugar added to any food each day. This equals 25 grams or 100 calories. **For men:** Try not to take in more 9 teaspoons of sugar each day (36 grams, 150 calories.)



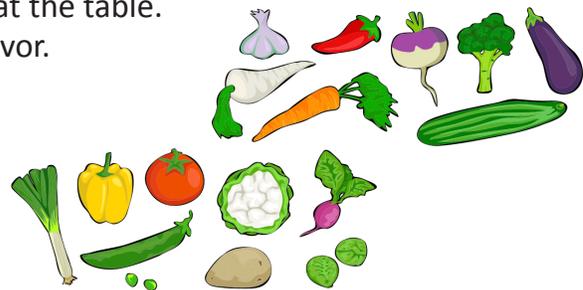
Don't add extra salt.

Cooking and Dining Guidelines

- Roast, bake or broil meats, trim excess fat and remove skin from poultry before eating.
- Choose fish, poultry and legumes more often and eat smaller portions of meat.
- Avoid fried foods and fat in cooking. Drain any fat when cooking ground meat.
- Avoid adding excess margarine, butter, salad dressing and oils to foods.
- Use healthier oils (like canola, olive, soybean) when needed.
- Avoid adding salt to food when cooking or at the table. Instead, use lemon juice or herbs to add flavor.
- Choose skim or 1% milk, low or reduced fat milk products and cheeses.
- Choose high fiber foods, such as fruits, vegetables and whole grains.



Baked, broiled or roasted meat is healthiest.



Fresh vegetables can be enjoyed raw or steamed. Don't fry!

Label Reading

Food labels are an easy way to help you learn about the fat, fiber, sugar and sodium in the foods you choose. Food labels provide information to help you follow healthy eating guidelines. (See example below.)

When reading food labels, check serving size to figure out how many calories you will be taking in. Also check if the calories, fat, sodium and sugar in this food fit into your overall calorie and nutrition needs. The new label below will show the amount of added sugar as well as other nutrients.

SIDE-BY-SIDE COMPARISON

Original Label	New Label																												
<div style="border: 1px solid black; padding: 5px;"> <p>Nutrition Facts Serving Size 2/3 cup (55g) Servings Per Container About 8</p> <hr/> <p>Amount Per Serving Calories 230 <small>Calories from Fat 72</small></p> <hr/> <p style="text-align: right;"><small>% Daily Value*</small></p> <p>Total Fat 8g 12% Saturated Fat 1g 5% Trans Fat 0g</p> <p>Cholesterol 0mg 0% Sodium 160mg 7%</p> <p>Total Carbohydrate 37g 12% Dietary Fiber 4g 16% Sugars 1g</p> <p>Protein 3g</p> <hr/> <p>Vitamin A 10% Vitamin C 8% Calcium 20% Iron 45%</p> <p><small>* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.</small></p> <table style="width: 100%; border-collapse: collapse; font-size: 0.8em;"> <tr> <td></td> <td style="text-align: center;"><small>Calories:</small></td> <td style="text-align: center;"><small>2,000</small></td> <td style="text-align: center;"><small>2,500</small></td> </tr> <tr> <td>Total Fat</td> <td>Less than</td> <td style="text-align: center;">65g</td> <td style="text-align: center;">80g</td> </tr> <tr> <td>Sat Fat</td> <td>Less than</td> <td style="text-align: center;">20g</td> <td style="text-align: center;">25g</td> </tr> <tr> <td>Cholesterol</td> <td>Less than</td> <td style="text-align: center;">300mg</td> <td style="text-align: center;">300mg</td> </tr> <tr> <td>Sodium</td> <td>Less than</td> <td style="text-align: center;">2,400mg</td> <td style="text-align: center;">2,400mg</td> </tr> <tr> <td>Total Carbohydrate</td> <td>Less than</td> <td style="text-align: center;">300g</td> <td style="text-align: center;">375g</td> </tr> <tr> <td>Dietary Fiber</td> <td></td> <td style="text-align: center;">25g</td> <td style="text-align: center;">30g</td> </tr> </table> </div>		<small>Calories:</small>	<small>2,000</small>	<small>2,500</small>	Total Fat	Less than	65g	80g	Sat Fat	Less than	20g	25g	Cholesterol	Less than	300mg	300mg	Sodium	Less than	2,400mg	2,400mg	Total Carbohydrate	Less than	300g	375g	Dietary Fiber		25g	30g	<div style="border: 1px solid black; padding: 5px;"> <p>Nutrition Facts 8 servings per container Serving size 2/3 cup (55g)</p> <hr/> <p>Amount per serving Calories 230</p> <hr/> <p style="text-align: right;"><small>% Daily Value*</small></p> <p>Total Fat 8g 10% Saturated Fat 1g 5% Trans Fat 0g</p> <p>Cholesterol 0mg 0% Sodium 160mg 7%</p> <p>Total Carbohydrate 37g 13% Dietary Fiber 4g 14% Total Sugars 12g Includes 10g Added Sugars 20%</p> <p>Protein 3g</p> <hr/> <p>Vitamin D 2mcg 10% Calcium 260mg 20% Iron 8mg 45% Potassium 235mg 6%</p> <p><small>*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.</small></p> </div>
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Note: The images above are meant for illustrative purposes to show how the new Nutrition Facts label might look compared to the old label. Both labels represent fictional products. When the original hypothetical label was developed in 2014 (the image on the left-hand side), added sugars was not yet proposed so the "original" label shows 1g of sugar as an example. The image created for the "new" label (shown on the right-hand side) lists 12g total sugar and 10g added sugar to give an example of how added sugars would be broken out with a % Daily Value.

Source: Food and Drug Administration

Food packaging may make nutritional claims. Do you know what these terms mean?

Fat Free	Less than 0.5 grams of fat/serving
Low-fat	3 grams or less fat/serving
Reduced Fat	25% less fat compared to similar food
Cholesterol Free	Less than 2 mg cholesterol and 2 grams or less of saturated fat/serving
Low Cholesterol	20 mg cholesterol and 2 grams or less of saturated fat/serving
Sodium Free (Salt Free)	Less than 5 mg sodium/serving
Very Low Sodium	35 mg or less sodium/serving
Low Sodium	140 mg or less sodium/serving

Making wise food choices can help you meet all your nutrition needs and keep your heart healthy. (See pages 5 to 7 for examples of healthy food choices.)

Tips to Add Fiber to Your Diet

- Eat whole fruit rather than drinking juice.
- Choose vegetables, such as Brussels sprouts, broccoli and eggplant.
- Look for whole grain products, especially those with oats and barley.
- Use bean dip or hummus for snacks.
- Increase your fiber gradually to meet your goals and drink plenty of fluids.

The following foods are good sources of soluble fiber.

Food Source	Soluble Fiber (grams or g)	Food Source	Soluble Fiber (grams or g)
CEREAL GRAINS		LEGUMES (½ cup cooked)	
Barley (1/2 cup cooked)	1	Lima beans	3.5
Oat bran (1/4 cup cooked)	1.7	Kidney beans	3
Oatmeal, regular, uncooked (1/2 cup)	2	Black, navy or pinto beans	2
Oatmeal, instant, 1 pkg	1.4	Northern beans	1.5
Bran flakes (1/2 cup)	1	Lentils or chickpeas	1
Raisin bran (1 cup)	.7	Black-eyed peas	1
Flaxseed meal (2 TBLS)	1.1	VEGETABLES (½ cooked)	
FRUITS		Brussels sprouts	3
Pears	2	Broccoli	1.4
Orange (1 medium)	1.8	Carrots	1
Prunes (1/4 cup)	1.5	Eggplant	1.3
Blackberries (1/2 cup)	1	Okra	1
Banana (medium)	.7	Baked potato with skin (1 small)	.9
Apple, nectarine, peach or plum (medium)	1		

A Menu Example:

Breakfast	Lunch	Dinner	Snack
1 cup oatmeal	1 to 2 cups bean soup	3 to 4 ounces fish, broiled	1 fresh fruit with plain yogurt
2 tablespoons walnuts	Salad with oil/vinegar dressing	1 small sweet potato	
1/2 cup skim milk	1/4 avocado	2 tablespoons plant sterol spread	
1/2 cup berries		1 cup broccoli and zucchini, steamed	

Food Group	Recommended Foods	Foods to Limit or Avoid
<p>Breads and Grains</p>  <p><i>Brown rice is healthier than white rice.</i></p>	<ul style="list-style-type: none"> • Whole grain breads and cereals. • Whole grain foods such as farro, bulgur, oats, oatmeal, quinoa, barley. • Whole wheat pasta, brown rice. • Low-fat whole grain crackers. 	<ul style="list-style-type: none"> • High fat cookies or foods such as croissants, cheese breads, egg noodles, biscuits, doughnuts, pastries, pies. • White bread, white rice, or foods made with white flour. • Snacks made with partially hydrogenated oils, such as chips, cheese puffs, snack mixes, butter-flavored popcorn, regular crackers.
<p>Fruits and Vegetables</p> 	<ul style="list-style-type: none"> • Fresh or frozen. • Canned without salt or syrup. • Prepared without saturated fat in creams or sauces. 	<ul style="list-style-type: none"> • Fried fruit or vegetables; prepared with butter, cream, cheese or high-fat sauces. • Fruit with syrup or whipped cream. • Dried fruit and fruit juice*.
<p>Milk and Milk Products</p> 	<ul style="list-style-type: none"> • Skim , 1% or 2% plain unsweetened milk. • Fat-free or low fat cheeses, sour cream, Greek or plain yogurt without sugar or fruit. 	<ul style="list-style-type: none"> • Whole milk, milkshakes, eggnog, cream, half-and-half, whole milk ice cream or yogurt. • Regular cream cheese, sour cream, other cheese.
<p>Meat and Protein Foods</p>  <p><i>Try to eat fish 2 times/week.</i></p>	<ul style="list-style-type: none"> • Fish, shellfish, shrimp, lobster, scallops. • Skinless poultry (chicken, turkey) • Lean cuts of beef, pork (loin, leg, round, extra-lean hamburger). • Deli cold cuts made with lean meat, low salt and 95% fat-free. • Venison, wild game. • Eggs, egg substitute, egg whites. • Tofu, soy, edamame, tempeh, seitan. • Meat alternatives made with soy or textured vegetable protein. • Dried beans, peas, legumes (see page 5). • Nuts (especially walnuts), nut butters. 	<ul style="list-style-type: none"> • Processed or fried meats or fish. • Organ meats (liver, brains, sweetbreads). • Higher-fat cuts of meat (ribs, T-bone steak, regular hamburger) • Bacon, sausage, corned beef, cold cuts, salami, bologna, hot dogs. • Poultry with skin.

Food Group	Recommended Foods	Foods to Limit or Avoid
Fats and Oils	<ul style="list-style-type: none"> • Unsaturated or trans-free vegetable oils such as olive, canola, peanut, soy, sunflower, avocado, grapeseed. • Soft or liquid margarine or vegetable oil spreads. • Low fat or fat-free mayonnaise. • Vinegar based salad dressings. 	<ul style="list-style-type: none"> • Butter, stick margarine, shortening, lard. • Partially hydrogenated margarine and oils (check labels). • Tropical oils (coconut, palm, palm kernel oils).
Soups	<ul style="list-style-type: none"> • Low sodium (salt), low fat soups or broth-based soups, especially with beans. 	<ul style="list-style-type: none"> • Creamed soups.
Sugar , Sweets and Snacks	<ul style="list-style-type: none"> • Low fat and low sugar* cookies, desserts and beverages. • Popcorn, plain (without butter, salt or cheese). 	<ul style="list-style-type: none"> • Cookies, sweets or desserts. (See Breads and Grains above.) • Sugar added to beverages*.

* Fruit juice and dried fruits have more sugar. Low sugar foods are recommended to reduce the overall amount of sugar in the diet.



Fresh or frozen fruit is a healthier dessert choice.

Northwestern Medicine – Health Information Resources

For more information, contact Northwestern Memorial Hospital’s Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. You may also visit the HLC on the 3rd floor, Galter Pavilion at 251 E. Huron St., Chicago, IL. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital’s Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363 or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

Developed by: NMH Nutrition Services