

Low Saturated Fat, Low Cholesterol Eating Plan



An important defense against high blood cholesterol is a diet low in saturated fat, cholesterol and high in fiber. Dietary changes can lower your blood cholesterol count by 10-15%.

Dietary cholesterol is the cholesterol found in all foods of animal origin – including meat, poultry, seafood, milk, and eggs. Dietary cholesterol can *raise* blood cholesterol. **Goal:** less than 200 mg daily.

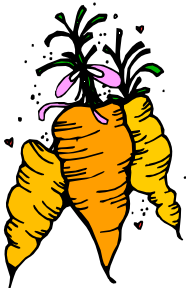


Saturated Fats are found in fats that come from animals, but some vegetable fats (coconut, palm, and palm kernel oils, and cocoa butter) are highly saturated. Any type of fat that is solid at room temperature is also a saturated fat (vegetable shortening). Studies suggest saturated fat can *increase* blood cholesterol.

Goal: less than 7% of daily calories from saturated fat.

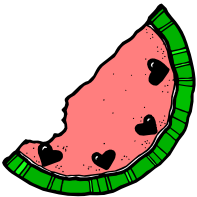


Trans Fats are similar in structure to saturated fats and also raise levels of LDL cholesterol and total cholesterol. Trans fats may also raise blood triglycerides and lower HDL cholesterol. To avoid trans fats, read labels closely. Limit foods that contain **hydrogenated** or **partially hydrogenated oils** such as the following: many stick margarines, vegetable shortening, packaged snack foods (crackers, chips, cookies), bakery items (pastries and doughnuts), microwave and theater popcorn, fried foods (French fries, fish sticks, chicken nuggets, etc.). **Trans fat** should account for as few of your total daily calories as possible.



Monounsaturated Fats are fats that are found in both animal and plant sources. Olive, canola and peanut oils are especially rich sources. When substituted for saturated fat, monounsaturated fat can help *lower* blood cholesterol.

Goal: up to 20% of daily calories from monounsaturated fat.



Polyunsaturated Fats are found mainly in foods of plant origin – safflower, sunflower, corn, sesame, flaxseed and soybean oils; it is also found in some fish – salmon and tuna. Polyunsaturated fat can also help *reduce* blood cholesterol.

Goal: 10% or fewer of daily calories from polyunsaturated fat.

- Omega-3 fatty acids: a type of polyunsaturated fat that's particularly heart-healthy. It can help lower triglycerides and reduce inflammation. Good sources include: salmon, herring, lake trout, sardines, soybeans and soybean oil, walnuts, flaxseeds and flaxseed oil, foods fortified with omega-3 fatty acid. If you eat enough foods high in omega-3's, you don't need to take fish oil supplements. Talk to your healthcare provider before taking them.



Blood Cholesterol is influenced by the amount of cholesterol your body makes and to a lesser degree, the amount you eat in foods.

Goal: ≤ 200 mg/dl. If you have Diabetes or established heart disease your goal is ≤ 180 mg/dl.

Dietitian: _____
Phone: _____
Facility: _____

High Density Lipoprotein (HDL): Often referred to as “good” cholesterol. High levels of HDL cholesterol in your blood *decreases* your risk of heart disease. **Goal:** 40 mg/dl or more for men, 50 mg/dl or more for women. *A level of 60mg/dl or more may be protective against heart disease.*

Low Density Lipoprotein (LDL): Often referred to as “bad” cholesterol. High levels of LDL cholesterol in your blood *increases* your risk of heart disease. **Goal:** less than 100 mg/dl

Very Low Density Lipoprotein (VLDL): also bad cholesterol. The main purpose of VLDL cholesterol is to distribute triglyceride (fat) produced by your liver. A high VLDL level can cause cholesterol buildup in your arteries and *increase* your risk of heart disease and stroke.
Goal: less than 130 mg/dl

Triglycerides: A type of fat the body uses to store energy. Having a high triglyceride and LDL level may increase your chances of having heart disease more than having only a high LDL level.
Goal: less than 150 mg/dl

Blood cholesterol levels are also lowered by weight loss and weight control. This eating plan is designed to decrease the intake of total fat (to help promote weight control), saturated fat and cholesterol in order to produce reductions in blood cholesterol.

General Guidelines

- Red meats should be limited to 3-4 oz. portions, eaten only 2-3 times/week. The remaining meat should be fish, turkey or chicken (white meat), or meat substitutes.
- Fish contain omega-3 fatty acids, oil which is protective against atherosclerosis. Regular consumption of fish (at least 2-3 times/week) is recommended.
- Shellfish and marine animals such as lobster, crab, shrimp, clams, oysters, scallops, and abalone have little or no effect on the blood cholesterol concentration because they are low in fat. They can be eaten in reasonable quantities (3-4 oz. portions). They should not be deep fat fried, served in butter or alfredo sauce.
- Eggs should be limited to 4/week, including those used in cooking. Egg substitutes can be used without restrictions.
- TV dinners may be used if they meet the following guidelines: less than 300 calories and less than or equal to 10 gm fat. TV dinners alone usually won't satisfy hunger, especially in men, so you may wish to add fresh salad, fresh fruit, and/or dinner roll to complete the meal.
- Consumption of both fish oil and plant stanol/sterols have been associated with decreased risk of heart disease. High doses of fish oil (2-6 grams per day) help reduce triglyceride levels and can be consumed in the form of fatty fish or as a capsule. Two grams per day of plant stanol/sterols lowers LDL cholesterol and can be found in a variety of foods such as margarine spreads (i.e. Benecol, Smart Balance, Take Control, etc.) some orange juices, breads, cereals, or yogurt. Food labels identify if the food item contains plant stanol /sterols.




Food Groups	Foods Recommended	Foods to Avoid
Beverages	<p>Decaffeinated coffee, tea, and carbonated beverages. Regular coffee, tea carbonated beverages with caffeine: as allowed by physician. Follow guidelines for milk.</p> <p>Alcohol: is high in calories and can interfere with weight control. Alcohol can increase triglyceride levels and should be use in moderation. Women – no more than 1 drink/day Men – no more than 2 drinks/day Count as a drink: 12 oz regular beer 5 oz wine 1 ½ oz distilled spirits</p>	<p>Beverages containing whole, 2% milk, cream or chocolate.</p> <p>Alcoholic beverages mixed with whole milk, cream or ice cream.</p>
Milk and Milk Products 2-3 servings (1 cup)	<p>Milk: 1%, skim milk, nonfat dry milk, evaporated skim milk, buttermilk (made from skim or 1% milk and limited to 1 cup per week). Chocolate milk made from skim or 1% milk and cocoa.</p> <p>Yogurt: nonfat or low-fat yogurt, nonfat or low fat frozen yogurt.</p> <p>Cheese: 1%, 2%, or dry curd cottage cheese, fat free cheese (label should read 0 grams fat per oz).</p> <p>Cheese with 3-5 grams of fat per oz can be substituted for part of meat allowance. (Skim milk mozzarella, Ricotta, Feta, etc.) (1 oz cheese = 1 oz meat)</p>	<p>Whole or 2% milk. Products made from whole or 2% milk. Chocolate milk, cream, half& half, malted milk, regular evaporated or condensed milk.</p> <p>Yogurt made with whole milk.</p> <p>Regular cottage cheese</p> <p>Regular Cheddar, Swiss, American Cheese, Blue Cheese, Gouda, Provolone, etc. Any cheese with more that 3 grams of fat per oz. <i>Need to read labels.</i></p>
Fruits 2-4 servings (½ cup canned or juice, 1 medium piece)	All fruits and juice	None
Vegetables 3-5 servings (½ cup)	Fresh and fresh frozen vegetables.	Vegetables in butter, cream or cheese sauces. Fried or glazed vegetables.


Food Groups	Foods Recommended	Foods to Avoid
<p>Breads and Cereals 6-11 servings</p> <p>One serving equals: 1 slice bread</p> <p>6 crackers</p> <p>1 c. cold cereal ½ c. hot cereal</p> <p>3 c. popped popcorn</p> <p>1 roll or muffin</p> <p>1 (6") pancake</p> <p>1 waffle</p>	<p>Whole grain or enriched breads and cereals including bagels, English muffins and hard rolls.</p> <p>Fat-free crackers including rye or rice wafers, melba toast, bread stick, pretzels.</p> <p>Cereals, crackers, and snack foods should have 2 grams of fat or less per 100 calorie serving.</p> <p>Homemade: (one serving of these food items also counts as a fat serving) muffins, pancakes, French toast, waffles, and quick breads made with allowed ingredients.</p> <p>Air popped popcorn.</p>	<p>Egg breads, butter rolls, popovers, regular snack crackers, cheese crackers, butter crackers or any crackers with fat. Regular microwave popcorn.</p> <p>Commercial granola cereals, biscuits, muffins, doughnuts, French toast sweet rolls, and any others made with egg yolks, butter, coconut oil, whole milk or cream.</p> <p>Any commercial mixes containing egg, whole milk, shortening, lard, palm or coconut oil.</p>
<p>Potatoes and Potato Substitutes (1/2 cup = 1 bread serving)</p>	<p>White or sweet potatoes, macaroni, spaghetti, noodles and other pastas and rice: all prepared without oil or fat. Homemade stuffing made with allowed ingredients.</p>	<p>Fried potatoes, potato chips, egg or chow mien noodles, fried rice.</p>



Food Groups	Foods Recommended	Foods to Avoid
<p>Meats and Meat Substitutes 2-3 servings (6 oz/day)</p>	<p>Lean well trimmed cuts of meat.</p> <p>Beef: lean cuts are the round, flank, sirloin tip roast /steak, tenderloin rump, extra-lean hamburger ($\geq 90\%$), grnd round, veal</p> <p>Pork: lean cuts are sirloin roast, tenderloin, loin chops.</p> <p>Lamb: leg of lamb is the leanest.</p> <p>Wild game: all but organ meats.</p> <p>Poultry: chicken and turkey (remove the skin before cooking); white meat is lower in fat.</p> <p>Fish: scale fish (trout, halibut, salmon, cod, etc.), water-packed tuna or salmon, shellfish within the recommended guidelines.</p> <p>Luncheon meats or cold cuts containing ≤ 3 gms fat or less / oz.</p> <p>Legumes: kidney beans, lentils, chick- peas, pinto beans and black-eyed peas can be used as a meat substitute.</p> <p>Peanut butter - 2 Tbsp./serving. Is high in calories- limit if trying to lose weight.</p>	<p>Fried meats, corned or chipped beef, brisket, chili meat, kosher meats, prime cuts of beef, marbled steak, pastrami, regular ground meat, plate ribs, shorts or spare ribs, rib eye steak or standing rib roast, organ meats.</p> <p>Sausage, spare ribs, bacon, Bratwurst, Ground Boston (roast or steak), loin back ribs, shoulder arm, shoulder blade, ham (country or dry cure), salt pork, smoked pork hock, canned deviled ham.</p> <p>Veal breast.</p> <p>Mutton, ground lamb meat.</p> <p>Organ meats</p> <p>Domestic duck, goose, pre-based or pre-stuffed poultry.</p> <p>Caviar, fish canned in oil, anchovies, sardines, marinated herring.</p> <p>Regular cold cuts, hot dogs, sausages, pickled meats.</p>
<p>Eggs</p>	<p>No more than 4 egg yolks / week including those used in cooking or baking. Egg white or egg substitutes can be used as desired</p>	<p>More than 4 egg yolks per week.</p>



Food Groups	Foods Recommended	Foods to Avoid
<p>Fats and Oils Limit to 4 – 6 servings daily (including fat used in cooking) One serving equals:</p> <p>1 tsp. oil or margarine 2 tsp. salad dressing 1 Tbsp. gravy or sauce 1/8 or 1 Tbsp. avocado 10 small olives 1 Tbsp. nuts or seeds 1 tsp. mayo dressing 1 Tbsp. “lite” mayo or mayo-type dressing 1 Tbsp. oil salad dressing 2 Tbsp. “lite” salad dressing for green salads 1 Tbsp. cream cheese</p>	<p>Polyunsaturated oils: Soybean, safflower, sunflower, sesame or corn oil.</p> <p>Monounsaturated oils: peanut, olive or canola oil.</p> <p>Margarine with allowed liquid oil listed as the first ingredient, labeled as <i>trans fat free</i> (tub margarines), i.e. Promise, Smart Balance, <i>I Can’t Believe it’s not Butter</i>, Brummel & Brown Yogurt Spread, Blue Bonnet Lite Tub Margarine, etc.</p> <p>Salad dressings for green salads to be made with allowed oils and ingredients.</p> <p>“No Cholesterol” or “lite” mayonnaise or Miracle Whip. Any other “fat-free” products that are on the market (limited to 1 Tbsp or less per serving – they are not calorie – free).</p> <p>Gravies (fat removed) and sauces made with allowed foods (i.e., oils and/or skim milk are allowed, margarines).</p> <p>Walnuts, chestnuts, pine nuts, pecans, almonds, beechnuts, peanuts, Brazil, cashews, pistachios, macadamia etc. Pumpkin or sunflower seeds (all unsalted). All nuts are high in fat. Count intake as part of fat servings</p>	<p>Cottonseed or palm oil, cocoa butter. Lard, salt pork, bacon fat, and all products containing animal fat or meat fat.</p> <p>Any solid shortening, coconut or palm oil (found in commercially prepared products).</p> <p>Butter, sour cream, whipping cream, half & half, regular margarine.</p> <p>Salad dressings containing sour cream, cheese or a type of oil not allowed.</p> <p>Regular mayonnaise and Miracle whip type salad dressings. Sandwich spreads.</p> <p>Regular non-dairy creamers and whipped toppings containing coconut and palm oil.</p> <p>Gravies and sauces unless made with allowed ingredients.</p> <p>Coconut.</p>
<p>Soups</p> 	<p>Consommé’, vegetarian bean, chicken noodle, minestrone, onion, tomato, vegetable, and split pea.</p> <p>All homemade soups (fat-skimmed) made with allowed ingredients. Canned or dehydrated soups should have no more than 2 grams of fat per 100 calories.</p>	<p>Soups made with whole, 2% milk or cream or any other product not allowed.</p>

Food Groups	Foods Recommended	Foods to Avoid
Desserts	<p>Graham crackers, Fig Newtons, animal crackers, gingersnaps, and angel food cake.</p> <p>Gelatin, sherbet, fruit ice, non-fat frozen yogurt and ice cream, fruit and juice bars, and popsicles.</p> <p>Pudding or custards made with skim milk and egg substitutes.</p> <p>Occasional homemade desserts if made with allowed ingredients.</p> <p>Any dessert that contains 2 grams of fat or less per 100 calorie serving.</p>	<p>All other cakes, cookies, pie, ice cream, ice milk, pudding and custards made with whole milk and eggs.</p> <p>Desserts with more than 2 grams of fat per 100 calorie serving.</p>
Sweets	<p>Hard candies, gumdrops, mints (not chocolate), licorice, candy corn, marshmallows, syrup, honey, sugar, molasses, chewing gum</p>	<p>Chocolate, all other candy containing chocolate, coconut, butter or other fats, butter syrups.</p>
Miscellaneous	<p>Pepper, herbs, spices, flavorings, vinegar, lemon juice, lime juice. Butter buds, nonstick spray coatings (i.e. Pam). Unsweetened cocoa powder.</p> <p>TV dinners are allowed if they meet the following guidelines per serving: less than 300 calories and 10 grams of fat.</p>	

Ways to Lower Fat and Cholesterol in Your Diet



- Use whipped / tub margarine instead of “hard stick” margarine. Generally, the softer the margarine, the less saturated fat it has in it. Labels should list a liquid vegetable oil or water as the first ingredient rather than partly hydrogenated oil. Avoid margarines containing *trans fats*.
- If you must fry – use a non-stick cooking spray or cookware instead of oil.
- Sauté’ or stir-fry vegetables in liquid – defatted chicken, vegetable or beef stock (or water), or bouillon instead of butter or oil.
- Broil or bake meats rather than frying. Always cook meat on a rack so that the fat will drip away from the meat.
- Most red meat contains invisible fat. A “prime” grade contains the most fat, “choice” grade has less marbled fat, and “good” the least. Purchase the leanest meats when limiting fat / cholesterol.
- Trim all visible fat from red meat before you begin cooking it. As meat cooks some fat absorbs into the meat. By trimming it away, this decreases the amount of fat absorbed.
- Remove the skin from poultry before cooking. Most fat in poultry is just under the skin.

- When cooking stew, soups, or other dishes, prepare the food a day in advance and refrigerate. The hardened fat is easily removed from the food before reheating. This also works with canned foods. Simply chill the can before opening and remove the hardened fat.
- When making gravy, add a few ice cubes to cooled meat drippings. The fat will cling to the ice cubes, allowing you to make low fat gravy.
- Puree cooked vegetables in a blender. Use a several tablespoons of puree to thicken soups and stews instead of a roux (i.e.: celery, carrots, onions, zucchini, etc.)
- Salad bar salads are not necessarily low fat nutrition. For example: a salad with 1 oz chopped ham, ½ oz shredded cheddar cheese, 1 tbsp marinated vegetables and 2 tbsp blue cheese dressing would contain 31 grams of fat. Use care when selecting salad items.
- When ordering a salad, ask for dressing be served “on the side” so you can control how much you eat.
- There are some excellent non-fat salad dressings on the market but they usually contain a lot of salt. A tasty alternative is plain vinegar or lemon. A few fresh herbs (basil, oregano, parsley, chives) and a couple of cloves of garlic added to vinegar will give it a whole new taste. There are also several salad herb mixes available on the market.
- Non-fat powdered milk will thicken soups and produce a cream soup without the cream. Mix with just enough liquids to dissolve, usually 1-2 Tbsp. liquid to ½ cup powdered milk.
- Substitute fat-free mayonnaise, sour cream, or use non-fat plain yogurt in recipes for making salad dressings, soups, casseroles, desserts, dips, etc.
- There are several nonfat, fat-free skim milk products on the market. Read the labels and purchase these products whenever available.
- Remember: **Fat-free does not mean calorie-free.** Several fat-free products contain the same calories as the original versions. If you are trying to lose or maintain your weight, you need to be conscious of your total calorie intake and not eat extra amounts of food, just because the food items are fat-free.

Three Keys to Recipe Modification

Lowering the fat and cholesterol content of your favorite recipes can be tricky. Remember that some recipes are easier to change than others, but all recipes can become ‘heart healthy,” often with little change in taste, looks and quality. Start by reading the ingredients. Ask yourself if each ingredient serves a purpose. Identify any item you are trying to avoid or reduce and use one of the methods below:

- **ELIMINATION.** If the ingredient isn’t essential, don’t use it if high in sugar, fat or salt. Many people have found you can leave out the oil and sugar in baking and replace them with applesauce or frozen concentrated apple juice. The product is still sweet and moist, but you have eliminated the fat calories.
- **REDUCTION.** If less will do – *great!!* Try reducing hamburger meat in spaghetti sauces and add extra vegetables such as mushrooms, zucchini, etc.
- **SUBSTITUTION.** If you can find a healthier ingredient, use it. Try the substitutions below:

INGREDIENT	SUBSTITUTION
<p>1 Egg</p> 	<ul style="list-style-type: none"> • 2 egg whites = 1 egg • ¼ cup egg substitute ie. <i>Eggbeaters</i>, <i>Second Nature</i> or <i>Healthy Choice</i> or <i>Cholesterol-Free Egg Product</i>. These items can be found in the frozen food or dairy section of your grocery store. <p>Homemade egg substitute (1/4 cup = 1 egg): Combine 6 egg whites, ¼ cup non-fat powdered milk, 1 Tbsp. oil and 6 drops of yellow food coloring. Store in refrigerator up to one week.</p>
<p>1 Cup Butter</p>	<p>½ to 1 cup margarine with liquid oil as the first ingredient.</p>
<p>1 Cup Lard</p>	<p>½ to 1 cup vegetable oil (preferably olive, canola, safflower, corn, soybean or sesame oil).</p>
<p>1 Cup Shortening</p>	<p>Can substitute ¾ cup oil in cookies, breads, etc. The product will be crispier. In some dessert products (cakes, muffins or quick breads) equal amounts of applesauce can be substituted (food will be moister). Can also use 3 ripe, very-well mashed bananas instead of ½ c. shortening, oil or butter.</p>
<p>1 Cup Whole Milk</p>	<p>1 cup skim or 1% low fat milk.</p>
<p>1 Cup Cream</p>	<p>1 cup evaporated skim milk</p>
<p>1 Cup Shredded Cheese</p>	<ul style="list-style-type: none"> • ½ to 1 cup lower fat cheese such as part-skim mozzarella or (<i>Alpine Lace</i>, <i>Free N' Lean</i>, etc.) • ¼ cup very sharp cheese <p>Mix ½ cup low fat cottage cheese with ½ cup lower fat or regular cheese for casseroles</p>
<p>1 Cup Whipping Cream</p> 	<ul style="list-style-type: none"> • Non-fat or low-fat vanilla flavored yogurt • Homemade substitute: Beat ¼ cup ice water with ¼ cup non-fat milk powder (sprinkle powder into ice water to avoid lumps) until thick. Add ¼ tsp, vanilla, ½ tsp. lemon juice and ¼ cup sugar. <p>NOTE: <i>Non-dairy whipped toppings are available with high-or low-fat content. Read labels.</i></p>

INGREDIENT	SUBSTITUTION
1 Cup Salad Dressing	½ cup to 1 cup low fat salad dressing (<i>Miracle Whip Lite</i>)
1 Cup Mayonnaise	<ul style="list-style-type: none"> • 1 cup non-fat or low-fat yogurt • ¾ cup plain low-fat yogurt mixed with ¼ cup or less low-fat mayonnaise. • 1 cup low-calorie imitation, lite or fat-free mayonnaise
1 oz. Cream Cheese	<ul style="list-style-type: none"> • 1 oz. Neuchatel Cheese • 1 oz lite or fat-free cream cheese • 1 oz. fat free ricotta cheese
1 Cup Sour Cream	<ul style="list-style-type: none"> • 1 cup plain non-fat or low-fat yogurt (don't boil or it will curdle). • 1 cup mock sour cream: Blend 1 cup low fat cottage cheese, 2 Tbsp. Buttermilk and ½ to 1 tsp. of fresh lemon juice in a blender until smooth. • 1 cup yogurt cheese: Strain 2 cups of non-fat or low-fat yogurt overnight in the refrigerator. Line the strainer with layers of cheesecloth and set over a bowl to drain.
1 Oz. Square Baking Chocolate	3 Tbsp. Cocoa powder plus 1 Tbsp. oil.
1 Pound Ground Beef	<ul style="list-style-type: none"> • 1 lb extra lean grade (7% fat) ground beef. • 1 lb ground chicken or turkey breast • 1 lb tofu • 1 lb vegetables (for lasagna or pasta sauces) <p>NOTE: Use ¼ pound or less per person and drain the fat after cooking. If ground beef is browned before adding to a sauce or casserole, you can rinse it in a colander with hot water.</p>

Hints on Reading Labels

Key Word	What They Mean
Fat Free	Less than .5 gram of fat per serving.
Low Fat	3 grams of fat (or less) per serving.
Lean	Less than 10 grams fat, 4 grams or less of saturated fat, and less than 95 milligrams cholesterol per serving.
Extra Lean	Less than 5 grams fat, less than 2 grams saturated fat, and less than 95 milligrams cholesterol in a serving.
Light (Lite)	1/3 less calories or no more than 1/2 the fat of the higher- fat version; or no more than 1/2 the sodium of the higher-sodium version. Light also may be used to describe things like the color or texture of a food.
Cholesterol Free	Less than 2 milligrams of cholesterol and 2 grams (or less) if saturated fat per serving.
Low Cholesterol	20 milligrams cholesterol or less in a serving; saturated fat content must be 2 grams or less in a serving.

