

Nutrition for Health and Fitness: Fat in Your Diet¹

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Fat is big news. Almost every day we hear about the epidemic of obesity, which is about excess fat in our bodies. We also hear recommendations for how much and what type of fat we should have in our diets. With new research all the time, it can get confusing for consumers. Sometimes it's hard to know what to believe!

Most health authorities agree that Americans should eat diets low in saturated fat, *trans* fat, and cholesterol. Eating this way can help many people decrease their risk of heart disease, the leading cause of death in the U.S.



This fact sheet will help you understand why it's a good idea to choose a diet that is low in saturated fat, *trans* fat, and cholesterol. It also will give you tips to help you meet these dietary guidelines. You will learn how to make simple changes in your eating habits to help reduce your health risks.

Getting the Facts

What is fat?

Fat is a source of food energy, or calories. It helps the body absorb the fat-soluble vitamins A, D, E, and K. Fats also contribute to the good taste of many foods. Fats are made up of mixtures of fatty

acids. They are classified as **saturated (SFA)**, **monounsaturated (MUFA)**, or **polyunsaturated (PUFA)** fatty acids, depending on their chemical structure.

What's in a name?

When a fat or oil is high in one type of fatty acid, people often call it that type of fat or oil. Olive oil, which is high in monounsaturated fatty acids, often is called a monounsaturated oil, but it does contain a combination of fatty acids.

Each gram of fat in a food supplies about nine calories per gram, compared with about four calories per gram of protein or carbohydrates. This is why high-fat foods are also high in calories.

What is *trans* fat?

Trans fatty acids (TFA) have a structure that makes them affect the body similar to the effect of SFA. Both raise the level of harmful fats in the blood, but TFA also decreases the beneficial type.

TFA occur naturally in a few foods, but most are formed during hydrogenation. This process adds hydrogen to PUFA and results in a shelf-stable fat that is popular in foods like cookies and crackers. Many food companies have taken out some or all of the TFA from their products. Remember that foods labeled "0" *trans* fat can have up to 0.49 grams of TFA per serving, so read ingredient labels to know what is in the foods you eat.

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How do you score on fat?

Do the foods you eat provide more unhealthy fatty acids than is good for you? Answer the questions below; then see how your diet stacks up. (Check only one box for each question.)

How often do you eat:

1. Deep fat fried foods?
2. Fatty meats such as bacon, sausage, luncheon meats, or fatty steaks and roasts?
3. Whole milk, regular hard cheeses, or ice cream?
4. High-fat desserts such as pies, pastries, or cakes?
5. Rich sauces or gravies?
6. Grains with lots of fat such as croissants or rich muffins?
7. Whipped creams, table cream, half 'n half, sour cream, or cream cheese?
8. Butter or margarine on vegetables, dinner rolls, or toast?
9. Crackers or cookies containing *trans* fats (check the label)?

Seldom or never 1 or 2 times a week 3 to 5 times a week Almost daily

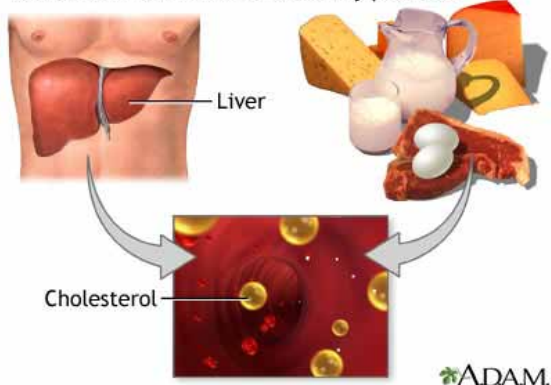
	Seldom or never	1 or 2 times a week	3 to 5 times a week	Almost daily

Take a look at your answers. If you have more than one or two responses in the last two columns, you may have a high fat intake. You can cut back on the **amount** you eat as well as the **number of times** you eat fatty foods. Use the tips in this fact sheet to help you lower your fat intake.

What is cholesterol?

Cholesterol is a fat-like substance that is part of all human and animal cells. Cholesterol is needed to form hormones, cell membranes, and other body substances. The human body is able to make cholesterol so it is not needed in the diet after the age of two. Some cholesterol in our diet is okay, but many adult Americans take in more than is recommended. This can cause health problems for some people.

Cholesterol is produced by the liver and we consume it from meat and dairy products



FACT: Young children need to have cholesterol in their diets, especially before the age of two. Cholesterol is needed for brain development.

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Blood Cholesterol and Heart Disease

High blood cholesterol is a **risk factor** for heart disease. This means that the higher a person's blood cholesterol, the greater their chances of having heart disease. Many Americans have high blood cholesterol. This is one reason why heart disease affects so many men and women in this country.

To find out your risk, have your fasting blood cholesterol checked on a regular basis. Most health authorities agree that it's best to have a total blood cholesterol below 200 milligrams per deciliter (mg/dl).

What about HDL and LDL?

Cholesterol is carried in the blood in packages called **lipoproteins**. Lipoproteins are packages of fat, cholesterol, and protein. There are two basic types—high-density lipoproteins (HDL) and low-density lipoproteins (LDL).



LDLs contain lots of fat and cholesterol. LDLs are harmful because they **deposit** cholesterol in the arteries. This can result in a build-up of plaque, which blocks blood flow and increases heart disease risk. A diet low in saturated fat, *trans* fat, and cholesterol can lower LDL levels in many people.

HDLs contain more protein and less fat and cholesterol. HDLs are helpful because they **remove** cholesterol from the arteries. Exercise helps to raise HDL levels.

Dietary Fat and Blood Cholesterol

The way diet affects blood cholesterol varies among people. Still, people who eat low-fat diets **tend** to have lower blood cholesterol levels. The best advice is to eat a diet that is low in SFA and TFA.

SFAs tend to **raise** blood cholesterol levels. The animal fats in whole milk dairy products, beef fat, and lard are high in SFAs, many of which raise harmful LDL cholesterol levels. These foods also contain cholesterol.

Some plant oils, like coconut, palm, and palm kernel oils also are high in SFA, but they contain no cholesterol. Choose **less** often foods that are high in saturated fatty acids.

High in MUFA:

- Olive oil
- Canola oil
- Peanut oil
- Peanut butter

High in PUFA:

- Safflower oil
- Soybean oil



Fats that contain mostly MUFA or PUFA may lower blood cholesterol. Olive, canola, and peanut oils are high in MUFA. Safflower, corn, and soybean oils are high in PUFA. Even though these oils tend to lower blood cholesterol, you should limit the amount that you eat. All oils are high in calories, providing nine calories per gram of oil (45 calories per teaspoon).

For some people, eating foods high in cholesterol can raise their blood cholesterol level. Some health authorities suggest that everyone over the age of two limit cholesterol intake to less than 300 milligrams a day.

FAST FACTS:

- Some foods high in saturated fatty acids may contain little or no cholesterol.
- Cholesterol is found only in foods that come from animals.
- One teaspoon of any oil contains five grams of fat and about 45 calories.

How much fat do we need?

Current dietary guidelines suggest that 20–35 percent of our energy intake should be from fat. This means that if we eat 1,600 calories per day, we can eat between 35 and 62 grams of fat per day (see table). The important thing is to get most of our fat as MUFA and PUFA. We also should increase our intake of omega-3 fatty acids, which we can get mainly from fatty fish and flax seeds or flax seed meal. Some doctors recommend fish oil capsules for their patients with high blood cholesterol.

Daily Calories	Recommended Fat Intake (grams)
1,600	35-62
2,200	49-86
2,800	62-109



FACT: Children under the age of two years should **never** be on a low-fat diet. Young children need adequate fat and calories to grow and develop.

The nutrition label lists the number of calories from fat at the top, next to total calories. “Calories from fat” gives you an idea about how high in fat a food is. Remember that the “20 to 35 percent of calories from fat” goal applies to your diet over time, not to a single food or meal. Foods high in fat can be a part of a low-fat diet. You just want to eat small amounts of high-fat foods, and eat them less often.

Start Here

Limit these Nutrients

Get Enough of these Nutrients

Footnote

Sample Label for
Macaroni and Cheese

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250 Calories from Fat 110

% Daily Value*

Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories: 2,000	2,500
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	300g	375g
Dietary Fiber	25g	30g

Quick Guide to % DV

5% or less is low

20% or more is high

What’s on a label?

Nutrition and ingredient information on food labels can help you choose foods with less saturated fat, *trans* fat, and cholesterol. Using food labels makes it easy to compare the nutrient content of foods. Food labels can help you plan healthy meals and a healthy diet.

Nutrition Labeling

Nutrition information is provided on the *Nutrition Facts* panel. Total fat, saturated fat, and *trans* fat are listed in grams; total fat and saturated fat also are given as a percent of the Daily Value. The Daily Value is based on a 2,000 calorie diet. It is also based on getting 30 percent of your total calories from fat and 10 percent of calories from saturated fat.

The nutrition label lets you compare the amount of fat in different brands of the same food. This is because the serving size of foods of a certain type (such as bread, yogurt, or beans) must be the same on food labels for all foods of that type. Serving sizes reflect amounts that people usually eat.



Remember: If you usually eat a larger serving, then you get more fat than is shown on the label.

The cholesterol content of foods also must be on the label. Cholesterol is listed in milligrams and as a percent of the Daily Value. The Daily Value for cholesterol is 300 milligrams. Try to eat less than 300 milligrams of cholesterol, on the average, each day.

Ingredient Labeling

The labels of most packaged foods include a list of ingredients. Ingredients are listed in order by weight. The item present in the greatest amount is listed first. Foods that have a fat or oil listed first will be high in fat and calories. Choose these kinds of foods less often.

Ingredients high in SFA (limit these)

Beef fat
Butter
Cream
Lard
Cocoa Butter
Coconut Oil
Palm Oil
Palm kernel oil

Ingredients high in PUFA or MUFA

Canola oil
Corn oil
Cottonseed oil
Olive oil
Peanut oil
Safflower oil
Soybean oil
Sesame oil
Sunflower oil

To avoid too much fat, use products listing any fats or oils less often. To limit saturated fat in your diet, go easy on products with ingredients high in SFA.

Some food packages have claims about the food, like “low-fat” or “high fiber.” Each claim has a definite meaning. Foods must meet the government definitions for the claim to be used. Claims related to fat and cholesterol are listed in the next section.



What about food label claims?

Fat and cholesterol label claims

If the label says:	A serving has:
Fat free	Less than ½ gram fat
Saturated fat free	Less than ½ gram saturated fat
Cholesterol free	Less than 2 milligrams
Low-fat	3 grams or less fat
Low saturated fat	1 gram or less saturated fat and no more than 15 percent of calories from saturated fat
Low cholesterol	20 milligrams or less cholesterol and 2 grams or less saturated fat
Reduced fat, Less fat	At least 25 percent less fat than the regular food.
Reduced saturated fat, Less saturated fat	At least 25 percent less saturated fat than the regular food
Reduced cholesterol, Less cholesterol	At least 25 percent less cholesterol and 2 grams or less saturated fat

Cutting Down on Fats

Enjoy Low-fat Foods

- § Drink low-fat (1%) or fat-free milk.
- § Eat fresh fruits and vegetables for snacks.
- § Choose low-fat cookies and crackers.
- § Have a piece of fruit or some fresh fruit salad for dessert.
- § Use a small amount of oil-based or fat-free dressing on salads.

Use Low-fat Ingredients

- § Use **1% or fat-free milk** instead of whole or 2% milk.
- § **Cut down on the oil or fat** in recipes. Start by cutting out $\frac{1}{4}$ of the oil or fat; then cut the oil or fat in half. Some recipes, like stir-fried foods, need very little oil. Other recipes, like most cake recipes, cannot be changed without losing quality.
- § Use **reduced-fat mayonnaise** instead of regular. Also reduce the amount of mayonnaise used in casseroles.
- § Use **lean cuts of beef** when using beef in a recipe. The leanest cuts are eye of round, top round, round tip, bottom round, and top sirloin. Trim off all visible fat.
- § In casseroles, **decrease the amount of meat** and **increase the amount of vegetables** you use.
- § Use **ground round, very lean ground beef, or ground turkey breast** (or use a mixture of these) instead of ground chuck.
- § **Remove skin from poultry** before eating. Poultry can be cooked with the skin on, but if you just season the skin, you'll lose much of the taste when the skin is removed. Rub seasonings under the skin or remove the skin before cooking and season the meat instead.
- § Use **water-packed tuna** instead of tuna packed in oil.
- § Season food with **herbs and spices**. Stay away from heavy sauces, animal fats, and stick margarine.
- § Substitute **low-fat or fat-free plain yogurt or mock sour cream** (recipe included) for sour cream or mayonnaise.
- § Use **evaporated fat-free milk**, instead of cream or half-and-half.

Use Low-fat Cooking Methods

- § **Steam, boil, or bake vegetables** more often. Avoid deep frying.
- § When **stir frying**, use non-stick wok or frying pan and spray with vegetable oil spray.
- § **Roast, bake, broil, or grill meat** instead of frying so that fat can drip off.
- § Chill meat or poultry broth and gravies until fat is solid; then remove the fat before using.

Using Your Favorite Recipes

What about grandma's famous meat loaf or mom's fabulous pecan pie? Do you have to give up your family's favorite foods because they are high in fat? No, you can enjoy all the foods your family likes. Just keep these tips in mind:

- § Eat these foods less often.
- § Have small portions.
- § Eat slowly and enjoy every bite.
- § When possible, change one or more ingredients to cut down on fat while keeping the great taste.



Use the tips given in **CUTTING DOWN ON FATS** to adapt your favorite recipes.



Low-fat Recipes

The following recipes are reprinted with permission from *The Good Book of Nutrition*, Copyright 1987, American Cancer society, Florida Division, Inc.

LEMON-BROCCOLI SALAD

Almost any vegetable can be prepared in this manner – cauliflower, string beans, carrots, or mushrooms. Make up a colorful combination for an attractive appetizer, picnic dish, or side dish for dinner.

2 pounds fresh broccoli
3 tablespoons vegetable or chicken broth
3 tablespoons fresh lemon juice
1½ tablespoons olive oil
¼ teaspoon salt (optional)
¼ teaspoon pepper



Separate broccoli into florets; peel stems and slice crosswise. In a covered saucepan over medium heat, steam broccoli in a small amount of water for five minutes, or until tender-crisp. Drain. Save the liquid for soup. Immediately plunge broccoli into a bowl of ice water to stop cooking process. Drain.

In a blender or food processor, combine broth, lemon juice, olive oil, salt, and pepper. Process until mixed. Put broccoli into a salad bowl. Add dressing and toss to coat. Marinate in refrigerator for several hours. Makes 6 servings.

Approx. per serving: 75 calories; 4 grams fat

MOCK SOUR CREAM

This luscious, low-calorie sour cream is just the right topping for baked potatoes.

1 cup low-fat cottage cheese
¼ cup fat-free milk or buttermilk
½ teaspoon (or more) fresh lemon juice

In a blender or food processor, combine cottage cheese and buttermilk. Process until smooth. Pour into storage container and stir in lemon juice to taste. Makes 1 cup.

Approx. per serving: 10 calories; fat free

LEAN QUESADILLAS

Quesadillas look like small Mexican pizzas. They make a nutritious meal in a hurry.

6 corn tortillas
3 ounces part-skim mozzarella cheese, shredded
Lettuce, shredded
Tomato slices or chunks
1 cup mock sour cream
Prepared salsa



In an ungreased hot skillet, toast tortillas on both sides. Top with cheese and heat until cheese melts.

Place tortillas on serving plate. Layer lettuce, tomato slices, and mock sour cream on the tortillas. Serve with salsa. Makes 6 servings.

Approx. per serving: 140 calories; 4 grams fat

ORANGE CHICKEN

For a wonderful supper, serve this slightly sweet chicken with rice or pasta and a garden salad.

1 chicken, skinned and cut-up
Salt and pepper to taste
All-purpose flour
2 tablespoons canola oil, corn oil, or safflower oil
1 large onion, sliced
1 can (6 ounces) frozen orange juice concentrate

Preheat oven to 350°F. Sprinkle chicken with salt and pepper and coat with flour.

In a large skillet, heat oil over medium heat. Add chicken. Cook over medium-high heat until lightly browned. Put chicken into a 9 x 13 inch baking dish.



In the skillet, sauté onion in the pan drippings until tender. Spoon onion over chicken. Spread orange juice concentrate over chicken. Bake for one hour. Serve with rice. Makes 4 servings.

Approx. per serving: 340 calories; 13 grams fat

TEX-MEX STIR FRY

For a slight change of pace, try this wonderful mixture of flavors. Chicken and brown rice can be added to this recipe if desired.

2 tablespoons canola oil
 ¾ cup onion, chopped
 ¾ cup green bell pepper, chopped
 1 clove minced garlic
 1½ cups tomatoes, cored and cubed
 ¾ cup water
 1 tablespoon chili powder
 ½ teaspoon ground cumin
 3 cups zucchini, diced
 ¾ teaspoon salt (optional)
 1 cup corn, fresh or frozen



In a large skillet, heat oil over medium-high heat. Add onion and green pepper. Sauté for ten minutes, or until onion is tender. Add garlic and sauté 30 seconds.

Add tomatoes, water, chili powder, and cumin. Bring to a boil. Reduce heat to low. Cover and simmer for five minutes. Add zucchini and salt. Simmer for five to eight minutes, or until zucchini is tender-crisp. Stir in corn and simmer for one more minute.

Approx. per serving: 150 calories; 5 grams fat

Find More Recipes**American Heart Association**

Delicious Decisions – <http://www.americanheart.org/deliciousdecisions/jsp/home/home.jsp?requestid=6694860>

Centers for Disease Control and Prevention

Fruits and Veggies More Matters – <http://apps.nccdc.gov/dnparecipe/recipesearch.aspx>

National Heart, Lung and Blood Institute

Platillos Latinos – http://www.nhlbi.nih.gov/health/public/heart/other/sp_recipe.pdf

Heart Healthy Home Cooking African American Style – <http://www.health.gov/dietaryguidelines/dga2005/healthieryou/html/recipes.html>

Keep the Beat – http://www.nhlbi.nih.gov/health/public/heart/other/ktb_recipebk/ktb_recipebk.pdf

Stay Young at Heart – <http://www.nhlbi.nih.gov/health/public/heart/other/syah/syahrecp.htm>

U.S. Department of Health and Human Services

A Healthier You – <http://www.health.gov/dietaryguidelines/dga2005/healthieryou/html/recipes.html>

Small Step – Adult & Teen – <http://www.smallstep.gov/eb/recipes.html>

Key References & Resources

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