

# How Diabetes Affects the Body

## Your Eyes

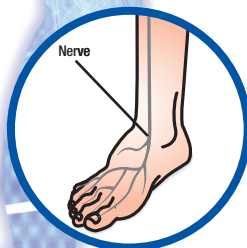
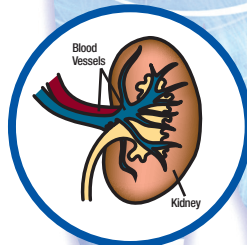
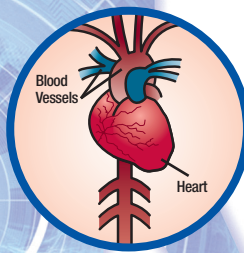
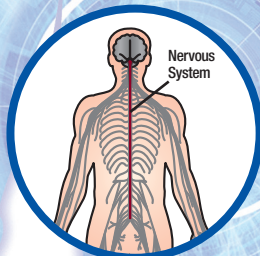
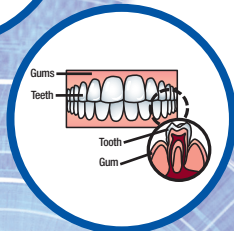
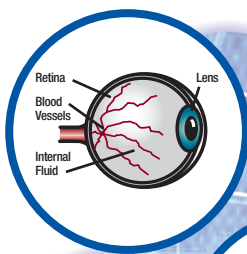
- ▶ Diabetes may cause the following common eye problems: diabetic retinopathy, cataract, glaucoma.
- ▶ **See your eye doctor regularly.**
- ▶ **Have a dilated-eye exam at least once a year.**

## Your Nervous System

- ▶ Diabetic neuropathy can sometimes result in numbness or loss of feeling in the feet, hands, or legs, and also can cause digestion problems, bladder problems, heart problems, and impotence.
- ▶ **Tight glucose control is the best way to prevent and/or control the risk of diabetic neuropathy:**
  - Talk to your healthcare provider about nerve damage.
  - Test your blood sugar regularly, and keep your levels controlled.

## Your Kidneys

- ▶ Early in diabetes, the parts of the kidneys that work to filter the blood may be damaged. Early testing for kidney disease—before it causes permanent damage—is very important.
- ▶ A sign of this damage is protein in the urine. A urine protein (albumin) test can show whether you are at risk of kidney disease.
- ▶ Kidney disease may have no symptoms, or it may include a feeling of tiredness and general weakness; trouble sleeping; swelling; or vomiting.
- ▶ **Talk with your healthcare provider about kidney disease.**
- ▶ **Test your blood sugar regularly, and keep your levels controlled.**
- ▶ **Have your blood pressure checked regularly, and ask about medicines that help control blood pressure, if necessary.**
- ▶ **Have a urine protein (albumin) test at least once a year.**



## Your Mouth

- ▶ Everyone gets plaque on their teeth. Plaque is a sticky film that comes from chewing food. It is filled with germs. In diabetes, high blood sugar helps these germs grow.
- ▶ Diabetes can cause red, sore, or swollen gums that bleed when you brush your teeth. Other problems include bad breath, gum disease, or tooth loss.
- ▶ **See your dentist every 6 months, and discuss ways to prevent problems and to help keep your teeth and gums healthy.**

## Your Heart and Blood Vessels

- ▶ Diabetes may cause serious problems to the heart and blood vessels:
  - Fatty deposits can form in the blood vessels.
  - High cholesterol is common in people with diabetes.
  - High blood pressure is common in people with diabetes.
- ▶ Diabetes also can lead to heart attack or stroke.
- ▶ **Talk with your healthcare provider about ways to control your cholesterol levels, blood pressure, blood glucose, and weight.**
- ▶ **Have your A1C tested at least twice a year.**
- ▶ **Have your blood pressure tested regularly.**
- ▶ **Have your cholesterol tested at least once a year.**
- ▶ **Take aspirin daily if instructed by your doctor.**
- ▶ **Do not smoke.**

## Your Feet

- ▶ Diabetes can cause nerve damage in the feet and may affect blood flow in the feet, making it harder for cuts or sores to heal.
- ▶ **Check your feet every day for cuts, sores, bruises, dry cracks, loss of feeling, or other signs of infection or redness.**
- ▶ **Treat foot infections promptly.**
- ▶ **Protect your feet by wearing comfortable socks and shoes at all times.**
- ▶ **If you see anything unusual, talk to your doctor right away.**
- ▶ **Have your feet checked every time you visit your healthcare provider.**

# Understanding Food Nutrition Labels

## Serving Size

Check to see if your serving is the same size as the one on the label. If you eat double the serving size listed, you need to double the nutrient and caloric values. If you eat one-half the serving size shown here, the nutrient and caloric values should be halved.

## Calories

Look here to see what a serving of food adds to your daily total. A person's size and activity level help determine total calories needed per day. For example, a 138-lb, active woman needs about 2,000 calories each day, while a 160-lb, active woman needs about 2,300.

## Total Carbohydrates

Carbohydrates are found in foods such as bread, potatoes, fruits, milk, vegetables, and sweets. Carbohydrates are the main source of energy for body functions. Talk to your healthcare provider/dietitian about the amount of carbohydrates to have in your meal plan.

## Dietary Fiber

It is important to consume foods containing fiber from a wide variety of sources. Fruits, vegetables, whole-grain foods, beans, and legumes are all good sources of fiber and can help lower cholesterol and thus reduce the risk of heart disease. Consumption of 20 to 35 grams per day is generally recommended.

## Sugars

Labels will indicate the grams of sugars in a food—both the natural and the added sugars. Talk to your healthcare provider/dietitian about limiting sugar in your meal plan.

## Vitamins and Minerals

Make it your goal to get 100% of each every day. Let a combination of foods contribute to a winning score.

## Nutrition Facts

Serving Size 1/2 cup (114 g)  
Servings Per Container 4

### Amount Per Serving

Amount Per Serving	Calories from Fat 30	% Daily Value*
<b>Calories</b> 90		
<b>Total Fat</b> 3 g		<b>5%</b>
Saturated Fat 0 g		<b>0%</b>
<b>Cholesterol</b> 0 mg		<b>0%</b>
<b>Sodium</b> 300 mg		<b>13%</b>
<b>Total Carbohydrate</b> 13 g		<b>4%</b>
Dietary Fiber 3 g		<b>12%</b>
Sugars 3 g		

### Protein 3 g

Vitamin A	80%	Vitamin C	60%
Calcium	4%	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	65 g	80 g
Sat. Fat	Less than	20 g	25 g
Cholesterol	Less than	300 mg	300 mg
Sodium	Less than	2,400 mg	2,400 mg
Total Carbohydrate		300 g	375 g
Fiber		25 g	30 g

Calories per gram:	
Fat 9	• Carbohydrate 4 • Protein 4

## Total Fat

Try to limit your calories from fat. Too much fat may contribute to heart disease and cancer. Choose foods with less than 30% of calories derived from fat.

## Saturated Fat

Saturated fat is the "bad" fat. It is the key player in raising blood cholesterol and your risk of heart disease. Less than 10% of daily calories should come from saturated fat.

## Cholesterol

Challenge yourself to eat foods totaling less than 300 mg of cholesterol a day. Too much cholesterol can increase your risk of heart disease. Cholesterol is found in foods of animal origin, such as meat, fish, eggs, and whole-milk products such as cheese and butter. Certain food products that contain plant stanols/sterols (for example, cholesterol-lowering margarine) can also help lower cholesterol.

## Sodium

Too much sodium (or salt) can worsen high blood pressure in some people. Sodium intake should be 2,400 mg per day, or even lower depending on your health. Talk to your healthcare provider/dietitian about the amount of sodium you should have in your diet.

## Protein

Most adults get more protein than they need. Even though protein from animal sources such as meat, fish, milk, and cheese is of higher nutritional quality than plant-based protein, it is also higher in fat—especially saturated fat and cholesterol. Choose skim or low-fat milk, yogurt, and cheese. Try to get some protein from vegetables (such as beans), grains, and cereals.

## Daily Values

These daily values apply to people who eat 2,000 to 2,500 calories each day. If you eat less, your personal daily value may be lower.

*Additional nutrients may be listed on some food labels.*

g = grams (about 28 g = 1 ounce)

mg = milligrams (1,000 mg = 1 g)