

Patient information: Counting carbs if you do not use insulin (The Basics)

Written by the doctors and editors at UpToDate

What are carbs? — Carbs (short for “carbohydrates”) are sugars that come from food. When we eat, our body breaks the food down into different nutrients. These nutrients are carbohydrates, proteins, and fats. The body uses carbohydrates for energy.

Foods with a lot of carbs include:

- Bread, pasta, rice, and cereal
- Fruits and starchy vegetables
- Milk and other dairy foods
- Foods with added sugar (such as many cookies and cakes)

What does “counting carbs” mean? — Counting carbs (also called “carb counting”) is a type of meal planning that many people with diabetes use. It involves figuring out the number of carbs you eat. When people count carbs, they keep track of how many carbs they eat for each meal and snack.

People with diabetes need to know how many carbs they eat because eating carbs raises a person’s blood sugar level.

How do I count carbs? — If your food has a nutrition label, you can look at the information on the nutrition label. You need to look at the:

- “Total carbohydrate” number – This tells you how many carbs are in 1 serving size of the food. If you eat 1 serving, then the number of carbs you eat is the same as the number of total carbohydrates.
- “Serving size” – This tells you how much food is in 1 serving. If you have 2 servings, the number of carbs will be 2 times the number of carbohydrates listed.
- “Dietary fiber” – Fiber is a carbohydrate that is not digested, which means it does not raise blood sugar. Foods with a lot of fiber can help control a person’s blood sugar. If a food has more than 5 grams (g) of fiber, less insulin is needed for that food ([figure 1](#)).

Many foods, such as fresh fruits and vegetables, don’t have a nutrition label. For these foods, you will need to learn about the usual serving sizes of different foods. You will also need to learn how many carbs are in 1 serving.

Your doctor, nurse, or dietitian (food expert) will tell you how many carbs you should eat in 1 day. It will depend partly on your height, weight, how active you are, and your medicines. You can divide this total number of carbs up over the day and eat some at each meal and snack.

Can counting carbs help me manage my diabetes? — Yes. Counting carbs can help you manage your diabetes by keeping your blood sugar level under better control. Counting carbs can help keep your blood sugar level from getting too high (especially after meals) or too low.

It’s important to keep your blood sugar level under control, because blood sugar levels that are too high or too low can lead to immediate and serious problems. In addition, having high blood sugar levels for a long time can lead to kidney, nerve, and eye problems later on.

Counting carbs can also help you plan your meals and snacks each day. Knowing how many carbs you can eat at each meal or snack can help you choose foods to eat.

What else should I do? — The following tips might help when you count carbs:

- Spread out your carbs over 4 to 6 small meals each day instead of 3 big ones.
- Eat the same number of carbs at each meal, for example, at each dinner.
- Eat your meals at the same time each day.
- Plan your meals ahead of time.
- Check your blood sugar before you eat and 1 hour after you eat. This can help you learn how certain foods affect your blood sugar. You can check your blood sugar level at home using a device called a "blood glucose monitor."
- Keep a record of your meals and blood sugar levels. Show it to your doctor or nurse so that he or she can change your treatment as needed.
- Remember that other things besides carbs can raise or lower your blood sugar level. These things can include exercise, getting sick, drinking alcohol, travelling, and stress.

If you have any questions about counting carbs or meal planning, ask your doctor, nurse, or dietitian. For more information, you can also get a book on counting carbs or look on the American Diabetes Association Web site (www.diabetes.org).

GRAPHICS

Nutrition label: Counting carbohydrates

Nutrition Facts		
Serving Size	1 Cup (59g/2.1 oz.)	
	Cereal	Cereal with ½ Cup Vitamins A&D Fat Free Milk
Amount Per Serving		
Calories	190	230
Calories from Fat	10	10
	% Daily Value**	
Total Fat 1g*	2%	2%
Saturated Fat 0g	0%	0%
Trans Fat 0g		
Polyunsaturated Fat 0.5g		
Monounsaturated Fat 0g		
Cholesterol 0mg	0%	0%
Sodium 250mg	10%	13%
Potassium 320mg	9%	15%
Total Carbohydrate 46g	15%	17%
Dietary Fiber 7g	29%	29%
Sugars 17g		
Other Carbohydrate 22g		
Protein 5g		
<small>* Amount in cereal. One half cup of fat free milk contributes an additional 40 calories, 65mg sodium, 6g total carbohydrates (6g sugars), and 4g protein. ** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.</small>		

Note serving size: 1 cup

Note total carbohydrates: 46 grams
Subtract dietary fiber: 7 grams

Calculate net carbohydrates:
One serving has 39 grams of carbohydrates

To calculate the number of net carbohydrates in 1 serving (1 cup), subtract the number of grams of dietary fiber (7 grams) from the number of grams of total carbohydrates (46 grams). In this example, the number of net carbohydrates is 39 grams.

%; percent.