

All About Carbohydrate Counting

What is carbohydrate counting?

Carbohydrate counting is a way to plan your meals. It can help you manage your blood glucose (sugar). Carbohydrates, or carbs, are one of the three main energy sources in food. The other two are protein and fat. It's the balance between insulin in your body and the carbohydrate you eat that determines how much your blood glucose levels rise after you eat. With the right balance of carbohydrate and insulin, your blood glucose level is more likely to stay in your target range.

Counting carbohydrate can help you reach your blood glucose goals and prevent diabetes complications. You can learn to count carbs to choose what and how much to eat. If you take insulin, you can count carbs to decide how much insulin to take.

Which foods have carbohydrate?

Starchy foods, sugars, fruits, milk, and yogurt are mostly carbs. See examples in the chart below. These foods affect your blood glucose much more than other foods, such as meat and meat substitutes, vegetables, or fats.

Carbohydrate foods (Carbs)	
<ul style="list-style-type: none"> bread, bagels, biscuits, chapatti, muffins, crackers, matzoh, and tortillas 	<ul style="list-style-type: none"> beans (such as black, garbanzo, kidney, lima, navy, or pinto beans), lentils, and peas (such as black-eyed or split peas)
<ul style="list-style-type: none"> ready-to-eat cereal or cooked cereal 	
<ul style="list-style-type: none"> barley, bulgur, couscous, grits, kasha, pasta, and rice 	<ul style="list-style-type: none"> fruit (canned, dried, fresh, and frozen) and fruit juice
<ul style="list-style-type: none"> starchy vegetables such as cassava, corn, peas, plantains, potatoes, and winter squash, and sweet potatoes 	<ul style="list-style-type: none"> buttermilk, milk, soy milk, and yogurt
<ul style="list-style-type: none"> pancakes and waffles 	
<ul style="list-style-type: none"> popcorn, potato chips, pretzels, and rice cakes 	



Carbohydrate counting can help you choose what and how much to eat.

How many grams of carbohydrate are best for me?

The recommended number of servings is based on your weight, activity level, diabetes medicines, and goals for your blood glucose levels. Your dietitian or diabetes educator, can work with you to make a personalized plan. A general guideline is to have

- 45-60 grams of carbohydrate at each meal
- 15-20 grams of carbohydrate servings at each snack

What about other foods such as meats, vegetables, and fats?

To have a balanced meal plan, you'll want to include protein foods (such as meat, chicken, and fish), nonstarchy vegetables (such as salad and broccoli), and a small amount of healthy fats (such as olive oil and nuts). Talk with your health care team about what to eat for your meals and snacks.

Why should I pay attention to serving sizes for carbohydrate foods?

The amount of carbohydrate you eat can make a big difference in your blood glucose. If you eat more carbs than you normally do at a meal, your blood glucose level is likely to be higher than usual several hours afterward.

The chart at the bottom of this page shows the size of 1 serving for each food listed. One serving equals 15 grams of carbs. You can check serving sizes with measuring cups and spoons or a food scale, or by using the Nutrition Facts label on a food package.

How to use the Nutrition Facts on food labels

To decide on a serving size, check the label for the number of carbohydrate grams (g). One serving is equal to 15 grams of carbohydrates.

- **If the total carbohydrate is 15 grams**, as in the box on the left, then check the top of the food label for the serving size for 1 serving.

Nutrition Facts
Serving Size: 6 crackers
Total Carbohydrate: 15g
One carbohydrate serving is 6 crackers.

Nutrition Facts
Serving Size: 4 cookies
Total Carbohydrate: 30g
One carbohydrate serving is 2 cookies.

Nutrition Facts
Serving Size: 1 graham cracker square
Total Carbohydrate: 5g
One carbohydrate serving is 3 graham cracker squares.

- **If the total carbohydrate is more than 15 grams**, as in the box in the middle, then divide the total by 15. For example, a food with 30 grams of carbohydrate contains 2 carbohydrate servings, because 30 divided by 15 equals 2.

- **If the total is less than 15**, as in the box on the right, then multiply the serving size so that your serving will have 15 grams of carbohydrate.

How do I get started with carbohydrate counting?

Ask your health care provider how you can learn more about carbohydrate counting. You can also get more information from the American Diabetes Association. Visit www.diabetes.org, call 1-800-DIABETES (342-2383), or email AskADA@diabetes.org.

Serving sizes for some carbohydrate foods (each has about 15 grams of carbs)	
apple: 1 small (4 ounces)	milk, fat-free or reduced-fat: 1 cup
bagel: ¼ large (1 ounce)	orange juice: ½ cup
banana: 1 extra small (4 ounces)	pasta or rice (cooked): ⅓ cup
bread: 1 slice (1 ounce) or 2 slices reduced calorie bread (1½ ounces)	green peas: ½ cup
cake (unfrosted): 2-inch square	pinto beans or kidney beans (cooked): ½ cup
cereal, unsweetened (ready-to-eat): ¾ cup	popcorn (popped): 3 cups
cereal, cooked: ½ cup	potato, mashed: ½ cup
cookies: 2 small (2¼ inches across)	potato chips: ¾ ounce (about 9 to 13)
corn: ½ cup	pretzels: ¾ ounce
crackers (saltines): 6	rice: ⅓ cup
fruit, canned: ½ cup	sugar: 1 tablespoon
hamburger bun: ½ bun (1 ounce)	sweet potato: ½ cup
ice cream (light): ½ cup	taco shells: 2 (5 inches across)
jam or jelly: 1 tablespoon	tortilla, corn or flour: 1 (6 inches across)



Provided By
 Purdue Extension - Knox County
 Tonya Short, Health & Human Sciences Educator
 812-882-3509; short43@purdue.edu