



TO: Diabetes Care and Education Dietetic Practice Group (DCE DPG) members

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TOPIC: Reproduction of the education handout *Ready, Set, Start Counting*

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Ready, Set, Start Counting

Carbohydrate Counting — a Tool to Help Manage Your Blood Glucose

When you have diabetes, keeping your blood glucose in a healthy range will help you feel your best today and in the future. Carbohydrate counting, or “carb counting,” is a meal-planning tool (not a diet) that helps you understand how your food choices affect your blood glucose level. The best part about carbohydrate counting is that it’s flexible, allowing you to eat a variety of foods.

Carbohydrate and Blood Glucose

Any carbohydrate food you eat (e.g., fruit, milk, pasta) is digested into glucose, which causes your blood glucose level to increase. That said, it’s still important to eat carbohydrates throughout the day because they provide energy and important nutrients to your body. The key is to pay attention to how much carbohydrate you eat in order to manage your blood glucose.

The right balance between carbohydrate and insulin (whether you make it or take it) keeps your blood glucose level normal. When you eat, how much you eat, and whether or not you have snacks should be based on your lifestyle, medications and meal-planning goals. A registered dietitian (RD) can help you choose the best goal for you, based on the following:

○ **Consistency** For many people who use diabetes medications or insulin, it is important to eat the same amount of food at the same time each day. Planning the amount of carbohydrate you eat can keep your blood glucose from getting too high or too low.

○ **Maximums** If you focus on a healthy lifestyle to control your diabetes or take medications that do not cause low blood glucose, having a maximum limit for carbohydrate at meals keeps your blood glucose from getting too high.

○ **Matching** Some insulin plans allow you to vary meal times or carbohydrate amounts. If you follow this type of insulin plan, you need to know how to match your insulin to the amount of carbohydrate you eat.

To Count Carbohydrates, You Need to Know:

Foods that contain carbohydrate

- Grains (e.g., breads, crackers, rice, cereals)
- Starchy vegetables (e.g., potatoes, peas, corn)
- Fruits and juices
- Milk and yogurt
- Sweets and desserts

Nonstarchy vegetables (e.g., carrots, broccoli, tomatoes) contain small amounts of carbohydrate and will not affect blood glucose unless you eat large amounts.

Portion sizes

➤ A “carbohydrate choice” is a portion of food that has 15 grams of carbohydrate. **(1 carbohydrate choice = 15 grams of carbohydrate)**



➤ Carbohydrate from any food has about the same effect on blood glucose. Small portions of sweets or sugar can occasionally be used in place of other carbohydrate foods when counting carbohydrates.



➤ Measure or weigh foods to learn what common portion sizes look like. When you can’t, use the hand estimates illustrated here.

How to read a food label

- Find the **Serving Size**.
- Find the **Total Carbohydrate** in one serving. (Sugars are included in this number, so you do not need to count them separately.)
- Compare the serving size listed to your portion.
- Calculate the amount of carbohydrate in your portion.
- You can count grams of carbohydrate or carbohydrate choices.

Nutrition Facts:	
Serv. size 15 crackers (30g)	
Calories 130	
Calories from fat 30	
Total Fat 3g	5%
Sat. Fat 0g	
Cholesterol 0mg	
Sodium 160mg	7%
Total Carb. 22g	7%
Dietary Fiber 2g 8%	
Sugars 3g	
Protein 3g	
Vitamin A	0%
Vitamin C	0%
Calcium	2%
Iron	4%

Carbohydrate Choices

When there is not a nutrition label available, use the food lists below to help you.

Each portion is one carbohydrate choice (15 grams of carbohydrate)

(Foods with fewer than 20 calories and 5 grams of carbohydrate are considered “free.” These include sugar-free sodas and beverages, sugar substitutes, spices and seasonings.)

Grains, Breads, Cereals	Milk and Yogurt	Fruits	Vegetables and Beans	Sweets and Snack Foods
<ul style="list-style-type: none"> • 1 oz bread product (e.g., 1 slice bread, 1/4 large bagel, 6” tortilla) • 1/3 cup cooked pasta or rice • 1 cup soup • 3/4 oz cold cereal* • 1/2 cup cooked cereal • 3 cups popcorn 	<ul style="list-style-type: none"> • 1 cup milk • 3/4 to 1 cup (6 to 8 oz) plain yogurt or yogurt made with low-calorie sweetener 	<ul style="list-style-type: none"> • 1 small piece of fresh fruit • 1/2 cup canned fruit in own juice • 1 cup melon • 1/2 cup fruit juice • 2 Tbsp dried fruit • 1 cup raspberries • 1 1/4 cup strawberries • 3/4 cup blackberries, blueberries 	<ul style="list-style-type: none"> • 1/2 cup potato, peas or corn • 1/2 cup cooked beans/legumes (e.g. garbanzo, kidney or black beans) • 3 cups raw vegetables • 1 1/2 cups cooked vegetables (Small portions of non-starchy vegetables are free.) 	<ul style="list-style-type: none"> • 3/4 oz snack food (e.g., pretzels, chips, 4 to 6 crackers) • 1 oz sweet snack (e.g., 2 small sandwich cookies, 5 vanilla wafers) • 1 Tbsp sugar or honey • 1/2 cup ice cream

*Serving sizes vary between 1/2 cup to 1 1/2 cup. Check the product’s nutrition label.

My Carbohydrate Goals

Breakfast _____ (time)
_____ carbohydrate choices or grams

Snack: _____ carbohydrate choices or grams

Lunch _____ (time)
_____ carbohydrate choices or grams

Snack: _____ carbohydrate choices or grams

Dinner _____ (time)
_____ carbohydrate choices or grams

Snack: _____ carbohydrate choices or grams

General guidelines for carbohydrates*:

- Most women need about 3 to 4 carbohydrate choices (45 to 60 grams) at each meal
- Most men need about 4 to 5 carbohydrate choices (60 to 75 grams) at each meal
- If you eat snacks, choose 1 to 2 carbohydrate choices (15 to 30 grams)

* **The number of carbohydrate choices you need depends on your body size, activity level and weight management goals.**

Healthy eating is more than just carbohydrate counting. Eat a variety of foods, including at least 5 servings of fruits and vegetables, at least 3 servings of whole grains, and 2 to 3 servings of low-fat or fat-free dairy. Foods in the meat and fat groups do not directly affect blood glucose. To keep your heart healthy, choose foods low in saturated and trans fat.

For a referral to a registered dietitian or more information on meal planning, contact the American Dietetic Association at www.eatright.org or 1-800-366-1655.



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