

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

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TOPIC: Reproduction of the educational slick *Ready, Set, Start Counting: How to Use Carbohydrate Counting to Keep Your Blood Glucose Healthy*, part of the *Eat • Move • Live Nutrition Notes* series from the DCE DPG

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# READY, SET, START COUNTING

## HOW TO USE CARBOHYDRATE COUNTING TO KEEP YOUR BLOOD GLUCOSE HEALTHY

When you have diabetes, keeping your blood glucose in a healthy range helps you feel your best today and in the future. Carbohydrate counting is a way to plan the amount of carbohydrate you eat and better manage your diabetes. Carbohydrate counting is not a diet. It is a *meal planning tool* that helps you understand how your food choices affect your blood glucose level.

### CARBOHYDRATE AND BLOOD GLUCOSE

Most of the carbohydrate you eat is digested to glucose. The right balance between carbohydrate and insulin (made by the pancreas or from injections) 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 dietitian can help you choose, from the goals below, the one that is best for you.

- CONSISTENCY** For many people who use diabetes medications or insulin, it is important to eat the same amount of food at the same times. Planning the amount of carbohydrate you eat can keep your blood glucose from going too high or too low.
- MAXIMUMS** If you use a healthy lifestyle to control your diabetes, or medications that do not cause low blood glucose, having a maximum limit for carbohydrate at meals keeps your blood glucose from going too high, and allows you to choose less carbohydrate when you wish.
- 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:

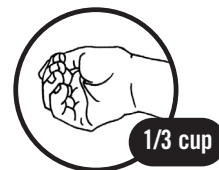
#### FOODS THAT CONTAIN CARBOHYDRATE

- Grains, breads, cereals and dried beans
- Starchy vegetables
- Fruits
- Milk and yogurt
- Sweets and desserts

(Nonstarchy vegetables 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 the same effect on blood glucose. Small portions of sweets or sugar can be used in place of other carbohydrate foods.
- Measure or weigh foods to learn what common portion sizes look like. When you can't, use these hand estimates.



#### HOW TO READ A FOOD LABEL

- Find the **Serving Size**.
- Find the **Total Carbohydrate** in one serving. (Sugars are included in this number, do not 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.

<b>Nutrition Facts</b>	Amount/Serving	%DV*	Amount/Serving	%DV*
Serv. size 2 cookies (28g)	<b>Total Fat</b> 7g	11%	<b>Total Carb.</b> 18g	6%
<b>Calories</b> 120	Sat. Fat 2g	10%	Dietary Fiber 1g	3%
Fat Calories 60	<b>Cholest.</b> 0mg	0%	Sugars 0g	
	<b>Sodium</b> 110mg	5%	Sugar Alcohol 5g	
			<b>Protein</b> 2g	
*Percent Daily Values (DV) are based on a 2,000 calorie diet.	Vitamin A 0% • Vitamin C 0% • Calcium 0% • Iron 6%			

## CARBOHYDRATE CHOICES

When there is not a label, these food lists can help you.

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

(Foods with less 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	Sweets and Snack Foods
<ul style="list-style-type: none"> <li>- 1 oz bread (1 slice bread, 1/4 large bagel, 6” tortilla)</li> <li>- 1/2 cup cooked dried beans</li> <li>- 1/3 cup pasta or rice</li> <li>- 1 cup soup</li> <li>- 3/4 cup cold cereal</li> <li>- 1/2 cup cooked cereal</li> </ul>	<ul style="list-style-type: none"> <li>- 1 cup milk</li> <li>- 2/3 cup unsweetened yogurt (6 oz) or sweetened with noncaloric sweetener</li> </ul>	<ul style="list-style-type: none"> <li>- 1 small fresh fruit</li> <li>- 1/2 cup fruit</li> <li>- 1 cup melon or berries</li> <li>- 1/2 cup fruit juice</li> <li>- 1/4 cup dried fruit</li> </ul>	<ul style="list-style-type: none"> <li>- 1/2 cup potato, peas, or corn</li> <li>- 3 cups raw vegetables</li> <li>- 1 1/2 cups cooked vegetables</li> </ul> <p>(Small portions of nonstarchy vegetables are free.)</p>	<ul style="list-style-type: none"> <li>- 3/4 oz snack food (pretzels, chips, 4-6 crackers)</li> <li>- 1 oz sweet snack (2 small sandwich cookies, 5 vanilla wafers)</li> <li>- 1 Tbsp sugar or honey</li> <li>- 1/2 cup ice cream</li> </ul>

For a referral to a dietitian or more information on meal planning contact the American Dietetic Association at [www.eatright.org](http://www.eatright.org) or 1-800-366-1655.

### 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

Most women need about **3-4 carbohydrate choices** (45 to 60 grams of carbohydrate) at each meal. Men generally need about **4-5** (60 to 75 grams of carbohydrate). If you eat snacks, **1-2 carbohydrate choices** (15-30 grams of carbohydrate) is reasonable. How many carbohydrate choices you need will depend on your size and activity level.

**Healthy eating is more than just carbohydrate counting.** Eat a variety of foods, including 5 servings of fruits and vegetables, 6 servings of grains (3 whole grain), 2 servings of low-fat dairy. Foods in the meat and fat groups do not directly affect blood glucose. Make heart healthy choices for optimal health.