Carbohydrate Counting – As easy as 1, 2, 3...
The Way to Better Blood Glucose Management

Basic Carbohydrate Guide

15 grams of carbohydrate:

1/2 English muffin
1/4 cup peas or beans
1 slice of bread
1 cup cereal (flakes)
1/3 cup potato, rice or pasta
½ cup of vanilla ice cream
1 small sized piece of fruit – orange, apple, peach
½ cup unsweetened applesauce
½ cup cooked or canned fruit – not in syrup
½ cup of fruit juice
½ banana
*Check the nutrition label for desserts, snack foods and sweetened beverages.

10 grams of carbohydrates:
½ - 1 cup of fresh fruit
1 cup of milk or sugar-free yogurt

5 grams of carbohydrate:
1 cup raw vegetable
½ cup cooked vegetable

0 carbohydrate:
Meats – poultry, fish, beef, pork
Eggs
Margarine
Butter
Nuts
Spices and seasonings

What is carbohydrate counting?

Let's start with a little background. Carbohydrates are essential in our diet. Foods that contain carbohydrates include:

- Breads and cereals
- Grains such as rice, pasta, and crackers
- Fruit and vegetables
- Milk and yogurt
- Desserts
- Snack Foods
- Sweetened beverages
- Sugar

Some vegetables such as beans, corn and potatoes contain a higher amount of carbohydrate than other vegetables such as zucchini, lettuce, peppers, tomatoes, and cucumbers.

Carbohydrates provide energy along with fiber, vitamins and minerals; so they are an important part of a healthy diet. When carbohydrates are broken down during digestion, the end product is glucose. Glucose is the basic energy source for the cell. Insulin is a hormone that gets glucose from the blood into the cell where it is used for energy. Diabetes is a disease where the body does not produce enough insulin.

Controlling the carbohydrate content of meals is the first step to control blood glucose (also called blood sugar) Carbohydrate counting or carb counting for short is a tool to evaluate the amount of carbohydrate in a food or meal. If you can estimate the carbohydrate content of a meal or snack you can adjust your insulin dose to accurately cover the meal, plan meals with consistent carbohydrate content and more tightly manage your child's blood sugar.

Protein and fat do not affect blood sugar directly. For the purposes of carbohydrate counting, foods such as meats, eggs, oils, dressings which contain very little carbohydrate are not counted.

Resources for more detailed nutrient content:

http://www.nal.usda.gov/fnic/foodcomp/search/

The USDA national nutrient database

http://www.carbohydrate-counter.org/

A free resource that has been set up as a simple way of finding the carbohydrate content in a variety of foods

Created by G. Garlow, RD | FSU Graduate Student in Food and Nutrition | 2011

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Food Labels– Nutrition Facts

1) Check the serving size and the number of servings per container. Notice the calories/serving.

2) Use the "Total Carbohydrate" number, it is expressed in grams. The sample label on the right shows 31 grams of carbohydrate for each 1 cup serving.

3) Is it a good food choice? Use the Nutrition Facts label to make a decision about whether to include a food or beverage. How does this food fit in to your child's nutrition prescription?

Nutrition Facts

Serving size 1 cup
Servings per container 2

Amount per serving

Calories 250	Calories from fat 110
	% Daily Value*
Total fat 12 g	18%
Saturated fat 3 g	15%
Trans fat 3 g	
Cholesterol 30 mg	10%
Sodium 470 mg	20%
Total carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

*Percent Daily Values are based on a 2000 calorie diet. Your Daily Values may be higher or lower depending on Your calorie needs.

	Calories	2000	2500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Dietary fiber		25g	30g

Carb Counting for a Day

Let's look at these sample meals and count the carbs:

Breakfast:	Carb (grams)
½ cup oatmeal	15
1 slice toast with margarine	15
1 egg	0
½ cup orange juice	15
	40
Lunch:	
Sandwich with:	
2 slices bread	30
2 oz. turkey	0
Lettuce, tomato	2
Mayonnaise	0
½ cup grapes	10
1 cup. milk	10
	52
Snack:	
1 graham cracker	10
1 cup milk	10
	20
Dinner:	
Chicken leg	0
1/3 cup mashed potato	15
½ cup broccoli	5
½ cup applesauce	10
1 cup milk	10
	40

Insulin Dose

When you're able to calculate the carbohydrate content of a meal or snack your doctor may give you guidelines to adjust your insulin dose.
Typical dose scales are 1 unit of insulin for each 10 or 15 grams of carbohydrate. So for the sample meals on the left, insulin dose may vary from 3 or 4 units at breakfast and dinner to 4 or 5 units at lunch and 1 unit for the snack. The exact ratio of insulin to carbohydrate is prescribed by your physician.
When you plan meals, think of the Carb containing foods in blocks of the Carb units prescribed, for examples blocks of 15. For dinner to the left, 1, 2, 3 Carb units and there you have it, you are carbohydrate counting!

For More Information About Carb Counting:

The American Diabetes Association provides free information at - http://www.diabetes.org/food-and-fitness/food/planning-meals/carb-counting/

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