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Carbohydrate Counting for People with Diabetes

Foods with carbohydrates make your blood glucose level go up. Learning how to count carbohydrates can help you control your blood glucose levels. First, identify the foods you eat that contain carbohydrates. Then, using the Foods with Carbohydrates chart, determine about how much carbohydrates are in your meals and snacks. Make sure you are eating foods with fiber, protein, and healthy fat along with your carbohydrate foods.

Foods with Carbohydrates

The following table shows carbohydrate foods that have about 15 grams of carbohydrate each. Using measuring cups, spoons, or a food scale when you first begin learning about carbohydrate counting can help you learn about the portion sizes you typically eat.

The following foods have 15 grams carbohydrate each:

<p>Grains</p> <ul style="list-style-type: none"> • 1 slice bread (1 ounce) • 1 small tortilla (6-inch size) • ¼ large bagel (1 ounce) • 1/3 cup pasta or rice (cooked) • ½ hamburger or hot dog bun (¾ ounce) • ½ cup cooked cereal • ½ to ¾ cup ready-to-eat cereal • 2 taco shells (5-inch size) 	<p>Fruit</p> <ul style="list-style-type: none"> • 1 small fresh fruit (¾ to 1 cup) • ½ medium banana • 17 small grapes (3 ounces) • 1 cup melon or berries • ½ cup canned or frozen fruit • 2 tablespoons dried fruit (blueberries, cherries, cranberries, raisins) • ½ cup unsweetened fruit juice
<p>Starchy Vegetables</p> <ul style="list-style-type: none"> • ½ cup cooked beans, peas, corn, potatoes/sweet potatoes • ¼ large baked potato (3 ounces) • 1 cup acorn or butternut squash 	<p>Snack Foods</p> <ul style="list-style-type: none"> • 3 to 6 crackers • 8 potato chips or 13 tortilla chips (¾ ounce to 1 ounce) • 3 cups popped popcorn
<p>Dairy</p> <ul style="list-style-type: none"> • ¾ cup (6 ounces) nonfat plain yogurt, or yogurt with sugar-free sweetener • 1 cup milk • 1 cup plain rice, soy, coconut or flavored almond milk 	<p>Sweets and Desserts</p> <ul style="list-style-type: none"> • ½ cup ice cream or frozen yogurt • 1 tablespoon jam, jelly, pancake syrup, table sugar, or honey • 2 tablespoons light pancake syrup • 1 inch square of frosted cake or 2 inch square of unfrosted cake • 2 small cookies (2/3 ounce each) or ¼ large cookie

Sometimes you'll have to estimate carbohydrate amounts if you don't know the exact recipe. One cup of mixed foods like soups can have 1 to 2 carbohydrate servings, while some casseroles might have 2 or more servings of carbohydrate.

Foods that have less than 20 calories in each serving can be counted as “free” foods. Count 1 cup raw vegetables, or ½ cup cooked non-starchy vegetables as “free” foods. If you eat 3 or more servings at one meal, then count them as 1 carbohydrate serving.

Foods without Carbohydrates

Not all foods contain carbohydrates. Meat, some dairy, fats, non-starchy vegetables, and many beverages don’t contain carbohydrate. So when you count carbohydrates, you can generally exclude chicken, pork, beef, fish, seafood, eggs, tofu, cheese, butter, sour cream, avocado, nuts, seeds, olives, mayonnaise, water, black coffee, unsweetened tea, and zero-calorie drinks. Vegetables with no or low carbohydrate include green beans, cauliflower, tomatoes, and onions.

How much carbohydrate should I eat at each meal?

Carbohydrate counting can help you plan your meals and manage your weight. Following are some starting points for carbohydrate intake at each meal. Work with your registered dietitian nutritionist to find the best range that works for your blood glucose and weight.

	To Lose Weight	To Maintain Weight
Women	2 - 3 carb servings	3 - 4 carb servings
Men	3 - 4 carb servings	4 - 5 carb servings

Checking your blood glucose after meals will help you know if you need to adjust the timing, type, or number of carbohydrate servings in your meal plan. Achieve and keep a healthy body weight by balancing your food intake and physical activity.

Tips

How should I plan my meals?

Plan for half the food on your plate to include non-starchy vegetables, like salad greens, broccoli, or carrots. Try to eat 3 to 5 servings of non-starchy vegetables every day. Have a protein food at each meal. Protein foods include chicken, fish, meat, eggs, or beans (note that beans contain carbohydrate). These two food groups (non-starchy vegetables and proteins) are low in carbohydrate. If you fill up your plate with these foods, you will eat less carbohydrate but still fill up your stomach. Try to limit your carbohydrate portion to ¼ of the plate.

What fats are healthiest to eat?

Diabetes increases risk for heart disease. To help protect your heart, eat more healthy fats, such as olive oil, nuts, and avocado. Eat less saturated fats like butter, cream, and high-fat meats, like bacon and sausage. Avoid *trans* fats, which are in all foods that list “partially hydrogenated oil” as an ingredient.

What should I drink?

Choose drinks that are not sweetened with sugar. The healthiest choices are water, carbonated or seltzer waters, and tea and coffee without added sugars.

Sweet drinks will make your blood glucose go up very quickly. One serving of soda or energy drink is ½ cup. It is best to drink these beverages only if your blood glucose is low.

Artificially sweetened, or diet drinks, typically do not increase your blood glucose if they have zero calories in them. Read labels of beverages, as some diet drinks do have carbohydrate and will raise your blood glucose.

Label Reading Tips

Read Nutrition Facts labels to find out how many grams of carbohydrate are in a food you want to eat. Don't forget: sometimes serving sizes on the label aren't the same as how much food you are going to eat, so you may need to calculate how much carbohydrate is in the food you are serving yourself.

Carbohydrate Counting for People with Diabetes Sample 1-Day Menu

Breakfast	<ul style="list-style-type: none">¾ cup yogurt, low fat, low sugar (1 carbohydrate serving)½ cup cereal, ready-to-eat, unsweetened (1 carbohydrate serving)1 cup strawberries (1 carbohydrate serving)¼ cup almonds (½ carbohydrate serving)
Lunch	<ul style="list-style-type: none">1, 5 ounce can chunk light tuna2 ounces cheese, low fat cheddar6 whole wheat crackers (1 carbohydrate serving)1 small apple (1½ carbohydrate servings)½ cup carrots (½ carbohydrate serving)½ cup snap peas1 cup 1% milk (1 carbohydrate serving)
Evening Meal	<ul style="list-style-type: none">Stir fry made with: 3 ounces chicken1 cup brown rice (3 carbohydrate servings)½ cup broccoli (½ carbohydrate serving)½ cup green beans¼ cup onions1 tablespoon olive oil2 tablespoons teriyaki sauce (½ carbohydrate serving)
Evening Snack	<ul style="list-style-type: none">1 extra small banana (1 carbohydrate serving)1 tablespoon peanut butter

Carbohydrate Counting for People with Diabetes Vegan Sample 1-Day Menu

Breakfast	1 cup cooked oatmeal (2 carbohydrate servings) ½ cup blueberries (1 carbohydrate serving) 2 tablespoons flaxseeds 1 cup soymilk fortified with calcium and vitamin D 1 cup coffee
Lunch	2 slices whole wheat bread (2 carbohydrate servings) ½ cup baked tofu ¼ cup lettuce 2 slices tomato 2 slices avocado ½ cup baby carrots (½ carbohydrate serving) 1 orange (1 carbohydrate serving) 1 cup soymilk fortified with calcium and vitamin D
Evening Meal	Burrito made with: 1 6-inch corn tortilla (1 carbohydrate serving) 1 cup refried vegetarian beans (2 carbohydrate servings) ¼ cup chopped tomatoes ¼ cup lettuce ¼ cup salsa 1/3 cup brown rice (1 carbohydrate serving) 1 tablespoon olive oil for rice ½ cup zucchini
Evening Snack	6 small whole grain crackers (1 carbohydrate serving) 2 apricots (½ carbohydrate serving) ¼ cup unsalted peanuts (½ carbohydrate serving)

Carbohydrate Counting for People with Diabetes Vegetarian (Lacto-Ovo) Sample 1-Day Menu

Breakfast	1 cup cooked oatmeal (2 carbohydrate servings) ½ cup blueberries (1 carbohydrate serving) 2 tablespoons flaxseeds 1 egg 1 cup 1% milk (1 carbohydrate serving) 1 cup coffee
Lunch	2 slices whole wheat bread (2 carbohydrate servings) 2 ounces low-fat cheese ¼ cup lettuce 2 slices tomato 2 slices avocado ½ cup baby carrots (½ carbohydrate serving) 1 orange (1 carbohydrate serving) 1 cup unsweetened tea
Evening Meal	Burrito made with: 1 6-inch corn tortilla (1 carbohydrate serving) ½ cup refried vegetarian beans (1 carbohydrate serving) ¼ cup tomatoes ¼ cup lettuce ¼ cup salsa 1/3 cup brown rice (1 carbohydrate serving) 1 tablespoon olive oil for rice ½ cup zucchini 1 cup 1% milk (1 carbohydrate serving)
Evening Snack	6 small whole grain crackers (1 carbohydrate serving) 2 apricots (½ carbohydrate serving) ¼ cup unsalted peanuts (½ carbohydrate serving)

Notes