

Type 2 Diabetes Nutrition Therapy

Why Is Carbohydrate Counting Important?

- Counting carbohydrate servings may help you control your blood glucose level so you feel better.
- The balance between the carbohydrates you eat and insulin determines what your blood glucose level will be after eating.
- Carbohydrate counting can also help you plan your meals.

Which Foods Have Carbohydrates?

Foods with carbohydrates include:

- Breads, crackers, and cereals
- Pasta, rice, and grains
- Starchy vegetables, such as potatoes, corn, and peas
- Beans and legumes
- Milk, soy milk, and yogurt
- Fruits and fruit juices
- Sweets, such as cakes, cookies, ice cream, jam, and jelly

Carbohydrate Servings

In diabetes meal planning, 1 serving of a food with carbohydrate has about 15 grams of carbohydrate:

- Check serving sizes with measuring cups and spoons or a food scale.
- Read the Nutrition Facts on food labels to find out how many grams of carbohydrate are in foods you eat.

The food lists in this handout show portions that have about 15 grams of carbohydrate.

Meal Planning Tips

An Eating Plan tells you how many carbohydrate servings to eat at your meals and snacks. For many adults, eating 3 to 5 servings of carbohydrate foods at each meal and 1 or 2 carbohydrate servings for each snack works well.

- In a healthy daily Eating Plan, most carbohydrates come from:
 - At least 6 servings of fruits and nonstarchy vegetables
 - At least 6 servings of grains, beans, and starchy vegetables, with at least 3 servings from whole grains
 - At least 2 servings of milk or milk products
- Check your blood glucose level regularly. It can tell you if you need to adjust when you eat carbohydrates.
- Eating foods that have fiber, such as whole grains, and having very few salty foods is good for your health.
- Eat 4 to 6 ounces of meat or other protein foods (such as soybean burgers) each day. Choose low-fat sources of protein, such as lean beef, lean pork, chicken, fish, low-fat cheese, or vegetarian foods such as soy.
- Eat some healthy fats, such as olive oil, canola oil, and nuts.
- Eat very little saturated fats. These unhealthy fats are found in butter, cream, and high-fat meats, such as bacon and sausage.
- Eat very little or no *trans* fats. These unhealthy fats are found in all foods that list “partially hydrogenated oil” as an ingredient.

Label Reading Tips

The Nutrition Facts panel on a label lists the grams of total carbohydrate in 1 standard serving. The label’s standard serving may be larger or smaller than 1 carbohydrate serving.

To figure out how many carbohydrate servings are in the food:

- First, look at the label’s standard serving size.
- Check the grams of total carbohydrate. This is the amount of carbohydrate in 1 standard serving.
- Divide the grams of total carbohydrate by 15. This number equals the number of carbohydrate servings in 1 standard serving. Remember: 1 carbohydrate serving is 15 grams of carbohydrate.

Note: You may ignore the grams of sugars on the Nutrition Facts panel because they are included in the grams of total carbohydrate.

Foods Recommended

1 serving = about 15 grams of carbohydrate

Grains

- 1 slice bread (1 ounce)
- 1 tortilla (6-inch size)
- ¼ large bagel (1 ounce)
- 2 taco shells (5-inch size)
- ½ hamburger or hot dog bun (¾ ounce)
- ¾ cup ready-to-eat unsweetened cereal
- ½ cup cooked cereal
- 1 cup broth-based soup
- 4 to 6 small crackers
- 1/3 cup pasta or rice (cooked)
- ½ cup beans, peas, corn, sweet potatoes, winter squash, or mashed or boiled potatoes (cooked)
- ¼ large baked potato (3 ounces)
- ¾ ounce pretzels, potato chips, or tortilla chips
- 3 cups popcorn (popped)

Fruit

- 1 small fresh fruit (¾ to 1 cup)
- ½ cup canned or frozen fruit
- 2 tablespoons dried fruit (blueberries, cherries, cranberries, mixed fruit, raisins)
- 17 small grapes (3 ounces)
- 1 cup melon, berries
- ½ cup unsweetened fruit juice

Milk

- 1 cup fat-free or reduced-fat milk
- 1 cup soy milk
- 2/3 cup (6 ounces) nonfat yogurt sweetened with sugar-free sweetener

Sweets and Desserts

- 2-inch square cake (unfrosted)
- 2 small cookies (2/3 ounce)
- ½ cup ice cream or frozen yogurt
- ¼ cup sherbet or sorbet
- 1 tablespoon syrup, jam, jelly, table sugar, or honey
- 2 tablespoons light syrup

Other Foods

- Count 1 cup raw vegetables or ½ cup cooked nonstarchy vegetables as zero (0) carbohydrate servings or “free” foods. If you eat 3 or more servings at one meal, count them as 1 carbohydrate serving.
- Foods that have less than 20 calories in each serving also may be counted as zero carbohydrate servings or “free” foods.
- Count 1 cup of casserole or other mixed foods as 2 carbohydrate servings.

Type 2 Diabetes Sample 1-Day Menu

Breakfast	1 slice whole grain toast (1 carbohydrate serving) 1 teaspoon trans-fat free margarine 1 egg omelet 1 orange (1 carbohydrate serving) 6 ounces low-fat, plain Greek yogurt (1 carbohydrate serving)
Lunch	2 ounces turkey breast 2 slices whole grain bread (2 carbohydrate servings) Lettuce and tomato salad 1 small apple (1 carbohydrate serving) 1 cup cucumber slices (0.5 carbohydrate serving)
Evening Meal	3 ounces baked chicken 1 cup baked, mashed sweet potato (2 carbohydrate serving) 1/2 cup cooked broccoli 1 large green salad 1 cup fat-free skim milk (1 carbohydrate serving) 1 cup fresh raspberries (1 carbohydrate serving)
Evening Snack	1 tablespoon nuts 1/2 cup ice cream (1 carbohydrate serving) 1-1/4 cups strawberries (1 carbohydrate serving)

Type 2 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 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)

Type 2 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 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 (1 carbohydrate serving) 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)

Notes