



Nutrition and Diabetes Management

A key part of managing blood sugars is healthy eating.

Carbohydrates, Protein, and Fats

Carbohydrates

Carbohydrates (carbs) from starches and sugars will increase the blood sugar more than protein or fats. People with diabetes can eat carbohydrates but need to focus on portion control. Your doctor or dietitian can recommend the amount you can have per meal, depending on your personal needs. In general, one serving of carbohydrate contains 15 grams of total carbohydrate.

Carbohydrates are found in many foods including:

- Starches such as breads, tortillas, pasta, cereal, rice, dried beans, and lentils
- Starchy vegetables such as corn, potatoes, and dried beans
- Fruit and juice
- Dairy products such as milk, pudding, and yogurt
- Sweets such as cake, pies, cookies, and candy
- Sugar containing beverages
- Condiments such as barbeque sauce, honey, and agave

Low carbohydrate vegetables have little impact on blood sugars and should be the largest part of the meal. In general, 1 cup raw or ½ cup cooked non-starchy vegetables have only 5 grams of carbohydrates.

Low carbohydrate vegetables include:

- Broccoli
- Cauliflower
- Green beans
- Leafy greens
- Mushrooms
- Tomatoes



Carbohydrates, Protein, and Fats (continued)

Fiber

Fiber is a type of carb, but as it passes through the body greatly unchanged, the impact on blood sugars is minimal. Fiber slows down digestion. This can help to prevent blood sugars from rising too quickly and can help to feel full. Choose high fiber foods to improve your blood sugars and overall health. The average adult should eat between 20 – 35 grams (g) of fiber each day.

Sources of fiber include:

- Fruits & vegetables
- Whole grains
- Dried beans and legumes
- Nuts and seeds



Protein

Animal sources of protein such as poultry, fish, lean meats, and eggs will cause only a small increase in the blood sugar. Plant protein such as dried beans and lentils are good sources of protein but contain carbohydrates as well. These can impact blood sugar, but as they contain healthy fiber, they remain excellent choices.



Fats

Fats, when eaten in moderation, have little impact on blood sugar levels. Choose healthy fats such as olive oil, unsalted nuts, or avocados.



Carbohydrate Control and Carbohydrate Targets

Blood sugar management focuses on controlling the amount of carbohydrates a person eats. There are two general methods that can be used, the Diabetic Plate Method or (carbohydrate) Carb Counting.

The Diabetic Plate Method is the easiest method to learn and promotes balanced eating.

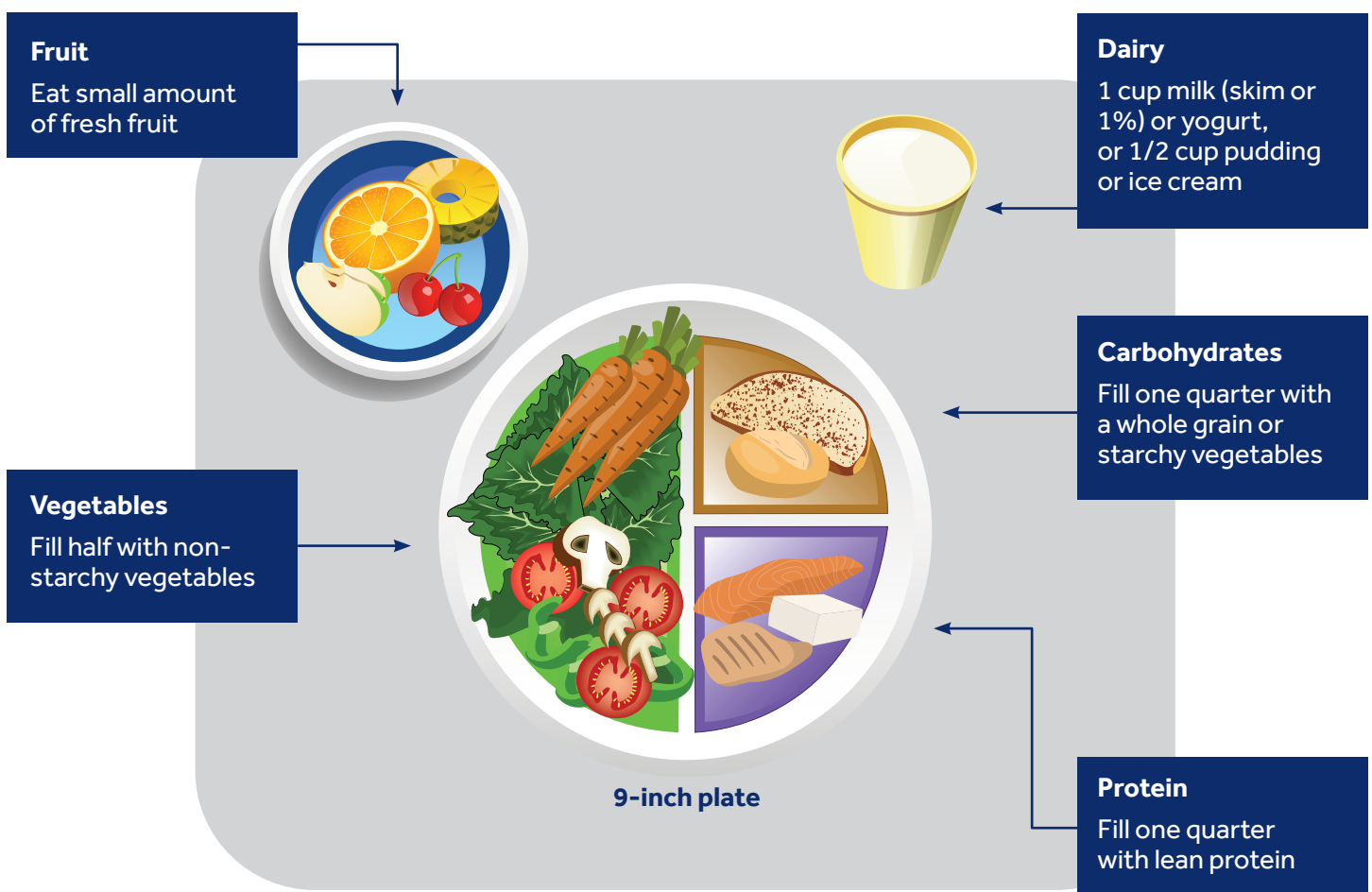
Serve meals on a 9" plate

Fill half of plate with a variety of low carbohydrate (or non-starchy) vegetables

Fill one quarter with a lean protein

Fill the final quarter with a whole grain or starchy vegetable

A small piece of fruit or dairy serving can be added, depending upon your carbohydrate target



Servings of Carbohydrates:

Women: 2-3 per meal (30-45 grams)

Men: 3-4 per meal (45-60 grams)

Per Snack:

1 carbohydrate (15 grams) per snack

1-2 snacks per day

Caution – snacking too much between meals can cause your glucoses to be too high.

**These nutrition recommendations are general. Individualized recommendations are based upon weight goals and blood sugar levels during the day. Please consult with your provider, dietitian or certified diabetes care and education specialist to determine what is best for you.*

Carbohydrate Control and Carbohydrate Targets (continued)



Carb Counting is a method that focuses on counting how many carbohydrate servings are consumed at a meal. Carbohydrate lists are available that show the quantity of carbohydrate containing foods that contain 15 grams of carbohydrate and are equivalent to one carb choice. Reading the Nutrition Facts label on packaged foods, using carb counting books, or the internet can all be used to find out how many grams of carbohydrates are in the foods a person is eating.

Examples of a carb serving containing approximately 15 grams of carbohydrates include:

- 1 slice of bread
- ½ cup cooked cereal or starchy vegetable
- ½ cup dried beans or lentils
- 1/3 cup cooked pasta, rice, or quinoa
- (1) 6" tortilla
- 6 small crackers
- ½ cup sweetened canned fruit
- 1 small piece of fresh fruit
- ½ cup fruit juice
- 1 cup cow's or soy milk
- ¾ cup (6 oz) plain or sugar free yogurt
- ½ cup pudding or ice cream



Carbohydrate Control and Carbohydrate Targets (continued)

Using a food label

Determine how much will be consumed compared to the serving size and adjust the amount of carbs accordingly. Include fiber rich food items.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrates 37mg	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%
* The Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet 2,000 calories a day for general nutrition advice.	

Serving Size

This tells you how much of the food makes up one serving. If you eat more than one serving, all the other values increase. The grams listed here refer to the weight of the serving.

Fat

This is the total amount of fat in each serving. Limit saturated fats and avoid trans fats.

Total Carbohydrates

This tells you how many grams of carbohydrates are in one serving. This number helps you fit the food into your meal plan.

Total carbohydrates including grams of sugar and fiber.

Carbohydrates

The amount of carbohydrates eaten will directly impact the amount of sugar in the blood. The general recommendations for carbohydrates are based upon gender, and adjusted based on blood sugar levels and weight goals. A registered dietitian or certified diabetes education and care specialist can guide you further.

	Carbohydrates per meal (3 per day)	Carbohydrates per snack (0-2/day)
Males	45-75g	0-30g
Females (not pregnant or lactating)	30-60g	0-30g

Sodium

The food label tells how many milligrams of sodium are in one serving. Limiting sodium to 1,500 – 2,300 mg per day is generally considered as heart healthy (2021 Diabetes Standards of Care).

Carbohydrate Control and Carbohydrate Targets (continued)

Fiber

The general daily fiber intake recommendations are based on gender and age.

	19-50 years of age	51 years and older
Males	31-34g	28g
Females	25-28g	22g

Source: Dietary Guidelines for Americans, 2020 - 2025

Alcohol

If you Drink Alcohol:

- Ask your healthcare provider if it is medically safe for you.
- Ask how your diabetes medication (if any) may be affected by drinking alcohol.
- Include the alcoholic beverage with a meal or snack to minimize the risk of low blood glucose.
- Limit the amount you drink. The American Diabetes Association recommends no more than 1 drink per day for women and 2 drinks per day for men. Moderation is the key.

Source: American Diabetes Association

Sample meals using 45g of carbs/ meal

Breakfast

45 Grams of Carbs or 3 Carb Choices

1 cup cooked oatmeal 4 oz skim milk 2 tbsp raisins	1 english muffin 1/2 banana 1 tbsp peanut butter	1 pkt no-sugar-added instant nutrition breakfast drink 8 oz skim milk 1 small orange	2 slices toast 4 oz juice 1 egg 2 tsp margarine
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Lunch and Dinner Menus

45 Grams of Carb or 3 Carb Choices

2 slices whole-grain bread lettuce, tomato 1 small apple 2-3 slices lean luncheon meat 2 tsp light mayo	2 slices "light" bread lettuce, tomato 10 baked chips 1/2 large pear 2-3 slices lean ham 2 tsp light mayo	1 cup vegetable soup 6 saltines 17 grapes 1 oz low-fat cheese	2 cups salad 1/4 cup chickpeas 1/2 cup tuna, plain 1/2 medium pita 1 cup fruit salad 2 tsp light dressing
1 cup cooked rice 1 cup broccoli 3-4 oz baked chicken breast 1 tbsp low-fat margarine sugar-free Jell-O	2/3 cup pasta 1/2 cup tomato sauce salad 2-3 oz protein 2 tbsp light dressing	1 plain fast-food hamburger 1 garden salad 1 pkg fat-free herb vinaigrette	2 cups Caesar salad 1/2 cup croutons 2-3 oz grilled chicken 1 tbsp Caesar dressing 1/2 cup frozen yogurt
2 tortillas 1/2 cup refried beans 1/2 cup salsa lettuce, tomato 3 tbsp light sour cream	2/3 cup brown rice 1 cup stir-fry vegetables 3-4 oz light tofu 1/2 cup light ice cream	1 cup mashed potatoes 1/2 cup corn 1/2 cup carrot 3-4 oz turkey 2 tbsp gravy	1 cup sweet potato 1 cup green beans 3-4 oz broiled fish 1/2 cup applesauce 1 tbsp low-fat margarine

It is recommended that all people with diabetes receive formal diabetes education after diagnosis and every year thereafter. Your diabetes team includes your primary care provider, endocrinologist, registered dietitian nutritionist, Certified Diabetes Care and Education Specialist and pharmacist.

www.BannerHealth.com/DiabetesGuide

LWWD e-book/ BH website with 602-230-CARE classes

These menus are taken from the Banner Health Living With Diabetes booklet. These are only suggestions. You may substitute other foods within a meal, provided that the food contains the same amount of carbohydrate or protein. Example: If you don't like tofu, you could have a 3 ounce portion of chicken in that meal.