Healthy Eating

Eating Right to Manage Diabetes

How you eat is very important for managing your health and your diabetes. There is no standard meal plan or eating pattern that works for all people with diabetes. Work with your healthcare providers to learn what to eat, how much to eat and when to eat. This will help you manage your blood glucose levels and your weight. It will also help lower your risk of heart disease and other diabetes complications.

Make Healthy Choices

As often as possible, choose nutritious, natural, less-processed foods. These include:

- High-fiber foods such as whole grains, beans, fresh vegetables and fruits.
- Low-fat protein such as poultry without skin, fish and seafood, lean cuts of meats, soy products, fat-free and low-fat milk, cheese and yogurt.
- Small amounts of heart-healthy fats such as olive, canola or peanut oil, avocado, nuts, and seeds.
- Eat fish twice a week, especially salmon and sardines, which contain omega 3 healthy fats.

Choose the Right Portions

- How much energy (calories) you need depends on your age, gender, activity level and weight goal (desire to lose, gain or maintain weight).
- Energy (calories) come from 3 key nutrients:
  - carbohydrates turn into glucose, so should be evenly spread through the day
  - protein builds and maintains muscle, helps you feel fuller longer and helps keep your blood glucose stable

- fat is found in many foods and can add a lot of extra calories, so may need to be limited

The following chart can help to estimate portion sizes.

Visual Aids to Help You Estimate Portion Size

Visual Aids to Help Your Estimate

1 cup =	baseball
3/4 cup =	tennis ball
1/2 cup =	computer mouse
1/4 cup =	egg
3 oz. =	deck of cards
2 tablespoons =	Ping-Pong ball

Two methods to help with portion control are "the plate method" and "carbohydrate counting".

The Plate Method
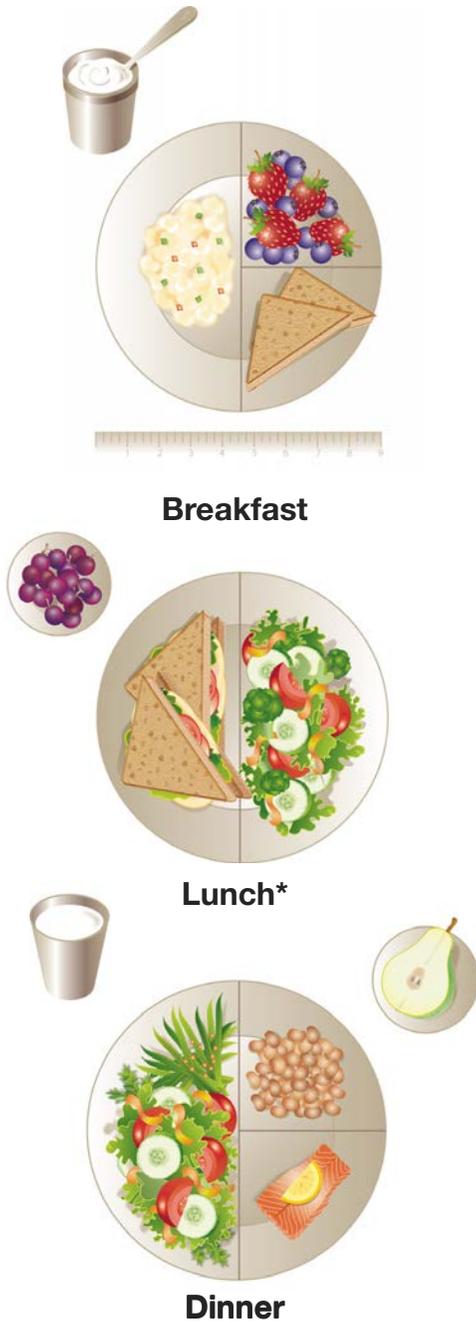
The plate method is a good way to plan well-balanced meals that are limited in carbohydrates. Divide your food groups on a 9- to 10-inch plate as shown in the diagram.

A common goal for meals may include two to four servings of carbohydrates.

Breakfast

Lunch*

Dinner

General Guidelines:

- A portion of whole grains, whole grain products (breads and cereals), lentils, dried beans, or starchy vegetables fits on one quarter of the plate.

- A portion of lean protein fits on one-quarter of the plate.

- A variety of colorful, non-starchy vegetables fits on half the plate (especially for lunch and dinner).

- Include fruits and/or vegetables at every meal.

- A cup of milk or yogurt and/or a serving of fruit may be eaten with the meal or saved for snack.

- Use a small amount of heart-healthy oil for cooking or flavoring foods and/or add a few nuts or seeds to your meal.

- Use herbs and spices liberally.

* The sandwich at lunch contains whole grain bread (one-quarter of the plate) and lean protein (one-quarter of the plate).

Carbohydrate Counting

Carbohydrates are a main source of energy and are part of healthy eating. Counting carbohydrates when you eat is a good way to manage your weight and diabetes. However, eating too many carbohydrates can raise your blood glucose to unhealthy levels. Eating the right kinds of carbohydrates in the right portions is part of a healthy meal plan.

Major carbohydrate food groups include:
- Starches, beans, starchy vegetables
- Fruit and fruit juices
- Milk
- Sweets, sweetened drinks, and snacks

Carbohydrate Choices

A carbohydrate choice is a serving of food that has approximately **15 grams of carbohydrates**. The more grams of carbohydrates you eat, the higher your blood glucose level will rise. Planning meals by limiting and evenly spreading your carbohydrates through the day can improve diabetes management. The following table shows the amount of food in one carbohydrate choice, that may be used for portion control.

15
grams of carbohydrates = 1 carbohydrate choice

Carbohydrate Choices

Starch

Each serving contains 15 grams of carbohydrate and about 80 calories
- ⅓ cup cooked rice or pasta (brown or whole grain is best)
- ½ cup cooked beans and lentils
- ½ cup starchy vegetables – potatoes, peas, corn
- ½ cup cooked whole grains – oats, barley, bulgur, quinoa
- 1 slice (1 oz.) bread (sprouted grain is best)

Fruit

Each serving contains 15 grams of carbohydrate and about 60 calories
- 1 small (4-5 oz.) piece of fruit
- 1 cup melon chunks
- ½ cup diced fruit
- ¾ to 1 cup berries

Milk

Each serving contains 15 grams of carbohydrate and about 90 to 120 calories
- 1 cup milk (reduced-fat and fat-free are best)
- 6 to 8 oz. nonfat plain or flavored "light" yogurt
- 1 cup fortified (calcium-enriched) soy milk

Other Carbohydrates   Limit these

Each serving contains 15 grams of carbohydrate and variable amounts of calories
- ½ cup low-fat ice cream or frozen yogurt
- 2-inch square of cake or brownie (unfrosted)
- 2 small cookies (2 inches each)
- 1 Tbsp sugar, honey, syrup, jam, or jelly
- 4 oz. of juice or sweetened drink

How Much to Eat

Work with your health care provider to find the best meal plan for your particular health needs. For many people, the following guidelines work well.

- Choose two to four carbohydrate choices per meal (30 to 60 grams).
- Choose up to one or two carbohydrate choices at each snack (15 to 30 grams).
- Choose 4 to 6 ounces of lean protein in a day (about two decks of cards).
- Choose 1 to 2 tablespoons of heart-healthy fat every day.

Number of total carbohydrate grams per carbohydrate (CHO) choice**

11-20 grams = 1 CHO choice
21-25 grams = 1.5 CHO choice
26-35 grams = 2 CHO choice
36-40 grams = 2.5 CHO choice
41-50 grams = 3 CHO choice
51-55 grams = 3.5 CHO choice
56-65 grams = 4 CHO choice
66-70 grams = 4.5 CHO choice
71-80 grams = 5 CHO choice

*** If a food has 5 or more grams of fiber, subtract half the total grams of fiber from the total grams of carbohydrate before using the table above.*

Include Protein

Eating enough protein not only helps you build muscle, but it helps keep your blood glucose stable. Choose lean protein, such as white-meat poultry with no skin; nonfat or low-fat dairy products; fish, pork, or beef tenderloin; soy products and whole eggs, egg whites and egg substitute.

Eat small portions of nuts and seeds.

Avoid eating fatty protein, such as sausage, salami, regular or full-fat cheese, ribs, bacon, or regular ground beef.

Choose Healthy Fats

A meal high in unhealthy fats can interfere with insulin action and affect glucose levels. In addition, eating too much fat can result in weight gain and a worsening of diabetes.

Choose **heart-healthy fats**. Examples include: vegetable oil (canola, olive or peanut), avocado, nuts, seeds, trans fat-free tub margarines, and salad dressing made with healthy oils.

Avoid unhealthy (trans and saturated) fats. These may make insulin resistance worse and increase your risk for heart disease. Trans and saturated fats are found in fatty meats, whole-fat dairy products, pastries, poultry skin, cheese, cookies, sausage, sour cream, some crackers, creamer, half-and-half, and premium or full-fat ice cream.

More Tips for Healthy Eating

- Use measuring cups, measuring spoons, and a food scale for portion control.
- Drink unsweetened or noncaloric beverages.
- Limit alcoholic beverages, but if you do drink, be sure to have with food or snack as it could lead to low blood glucose.
- Use sugar substitutes in place of sugar, honey or syrup.
- Choose a wide variety of types and colors of fruits and vegetables, such as dark-green and orange vegetables and blue and red fruits.

Guidelines for Reading Food Labels

Nutrition Facts

1 Serving Size 1 cup (228g)
Servings per Container 2

Amount per serving

2 **Calories** 190   Calories from Fat 45

%Daily Value*

3 **Total Fat** 5g   8%
     Saturated Fat 3g   15%
     Trans Fat 0g
Cholesterol 30mg   10%
Sodium 470mg   20%

4 **Total Carbohydrate** 31g   20%
     Dietary Fiber 6g
     Sugars 5g
Protein 5g

5 Vitamin A 4%   •   Vitamin C 2%
Calcium 20%   •   Iron 4%

* Percent Daily Values are based on a 2,000-calorie diet. Your Daily Values may be higher or lower, depending on your calorie needs.

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1 **Start with the serving size**
- All the listed nutrients are based on this serving size.
- Note that *Servings per Container* equals the number of servings contained in the package.

2 **Check the calories**
- The amount of *Calories* you eat affects your weight.
- Fewer calories helps with weight loss

3 **Choose less fat and sodium**
- Keep *Saturated Fat* as low as you can
- Avoid *Trans Fat*
- Limit *Cholesterol*
- Look for the lowest amount of *Sodium*

4 **Count carbohydrates**
- Look at *Total Carbohydrate* per serving
- 1 Carbohydrate Choice = 15 grams of carbohydrate
- *Sugars* are included in the total grams of carbohydrate
- If *Fiber* is 5 grams or more, you may subtract half from the *Total Carbohydrate*

5 **Choose more fiber, vitamins and minerals**
- Look for the highest amount of *Fiber*
- Look for high amounts of *vitamins* and *minerals*

Read the ingredients to help choose healthy foods
The ingredients are listed in order from most to least

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