



Diabetes: How Food Affects Your Blood Sugar

Understanding how both the foods you eat and the amount you eat can affect your blood sugar is the first step toward making healthy food choices.

Food is made up of three major nutrients: carbohydrates, protein and fat. All three of these are essential to maintain normal body growth, development and energy for your day-to-day activities. These nutrients must be obtained through your diet, as the body cannot produce these.

CARBOHYDRATES (also referred to as Carbs)

Of the three essential nutrients, carbohydrates are a body's main source of energy. **Carbohydrates also have the largest impact on raising your blood sugar levels.** Therefore, it is important to eat carbohydrates. Remember, the amount of carbohydrates you eat at one time (portion control) is essential to maintain normal blood sugar levels.

All foods have varying amounts of carbohydrates. It is important to become familiar with the food categories that contain carbohydrates, as well as how to identify carbohydrate amounts on a food label.

PROTEINS

This essential nutrient, by itself, usually has a small impact on blood sugar levels. However, portion control is still important in terms of calories and fat, both of which could impact your ability to lose weight and your risk for heart disease. Protein is found mostly in animal products, nuts, some dairy products and beans.

Be aware, that if a protein has a sauce or breading, this usually means it contains carbs and will need to be accounted for.

FATS

By itself, this essential nutrient typically has a small impact on your blood sugar levels. Choose healthier fats, such as olive oil, avocado or peanut butter, and limit high-fat foods to help reduce your risk of weight gain and heart disease.

GLUCOSE, SUGAR AND CARBOHYDRATES: WHAT'S THE DIFFERENCE?

What Is Glucose?

Glucose is another term for SUGAR. Glucose is the sugar that circulates in your blood. Many times this is referred to as blood glucose or blood sugar.

Are Carbohydrates Considered Sugar?

YES! These are foods that your body needs to break down into sugar (or glucose) during digestion, the process that provides energy to the body.

The term carbohydrates is used to describe all of the different types of sugars found in starches, fruits, grains, vegetables and milk products. Every food you eat has a different level of carbohydrate, and in many cases this can be identified by reading the food label.

Can I Still Eat Sugar or Carbohydrates?

YES! Your body still needs some sugar for energy. The type of sugar or carbohydrate you eat is also very important. Nutritious carbohydrates should take priority over those with simple added sugars such as desserts, juices and sodas. Portion size and eating sugar in moderation is key!

Should I Be Following a Special Diet?

There is no specific diet for people with diabetes. Eating plans should be based on your individual goals and characteristics. Food plans, however, will typically cover these areas: healthy foods in healthy amounts, keeping food timing in mind, and a plan that is doable and sustainable for your lifestyle.

A balanced food plan targets three goals: maintaining good blood sugar, maintaining a healthy weight, and keeping your risk of heart disease low.

Is There Someone Who Can Help Me With Food Choices?

YES! People managing diabetes should see a dietitian. Your dietitian can help you choose a carbohydrate goal and meal plan that considers your food, medication and physical activity. Those managing diabetes should become familiar with reading food labels and identify foods that increase their blood sugar levels.

Other resources include utilizing Independent Health's FREE Brook Health Companion app, meeting with a Certified Diabetes Educator, taking a diabetes education class or using a technical assistance program on your smart device.

What Are Common Foods That Could Raise Blood Sugar Levels?

Foods high in carbohydrates, or the food your body breaks down into sugar, will have the biggest impact on raising your blood sugar levels. Becoming familiar with these main carbohydrate categories is important in helping you manage your blood sugar levels.

CARBOHYDRATE CATEGORY	WHAT ARE EXAMPLES OF THESE?	HEALTHY TIPS
Starches 	Bread, pasta, rice, crackers, cereal, oatmeal and grains.	Choose starches high in fiber and monitor your portion size.
Vegetables 	Starchy vegetables have a larger impact on raising blood sugar levels. Corn, peas, potatoes and baked beans. Hint: if your vegetable is "mushy," it may be a starchy vegetable.	Choose non-starchy vegetables. These typically have a much smaller impact on blood sugar levels. Non-starchy vegetables are also usually low in calories and high in fiber and nutrients, making them ideal food choices. These include salad, spinach, kale, peppers, onions, mushrooms, cucumbers, broccoli and cauliflower. Hint: if your vegetable is "crunchy," it may be a non-starchy vegetable.
Fruit 	Berries, watermelon, apples, oranges and bananas. This includes all forms and preparations such as fresh, canned, dried or frozen.	Consider the size of the fruit. Choose fresh or frozen fruit that is not canned with added sugars. Large bananas are typically more than one serving and may contribute more carbs than you think. Consider getting small bananas from the store. For pieces of fruit such as apples and oranges, choose fruit the size of a baseball instead of a softball. Be aware, some fruit smoothies (fresh or packaged) can contain a large amount of sugar due to the large portion of fruit used.
Dairy 	Milk, yogurt and ice cream.	Always read the food label. All dairy milk contains the same amount of sugar regardless of fat content. Choose skim or 1% for lower calories and fat. Non-dairy milk (almond, cashew, etc.) varies widely in sugar content. Look for "unsweetened" on the package. Yogurt varies widely in sugar content. Choose yogurts lower in fat. Get in the habit of checking food labels to see which product is the healthier option for you.

CARBOHYDRATE CATEGORY

WHAT ARE EXAMPLES OF THESE?

HEALTHY TIPS

Desserts and Sweets



Candy, cake, jelly, jams and regular juice or soda.

Moderation is key!

Save desserts and sweets for special occasions.

Be aware, fruit juices typically contain a high amount of sugar. Choose unsweetened beverages or water as the healthier option.

Alcohol



Beer, wine and liquor.

Use in moderation. Limit alcohol to 1 or less drinks per day for women or 2 drinks or less per day for men.

Be aware, many mixers that are used in drinks can also contribute a large amount of added sugar.

In addition to this, some people will experience fluctuations in blood sugar when they drink alcohol regardless of the sugar amount. Alcohol can cause high blood sugars for some or low blood sugar for others.

Watch the Portion Size: Remember Balance Is Key!

Food labels provide the amount of carbohydrates in each product. Check the serving size and use measuring cups or spoons. It's easy to overestimate the size of an actual portion. If you are eating double the portion size, then you are eating double the amount of carbohydrates!

Check serving size. Information on the label is based on 1 serving. Keep in mind that packages often contain more than 1 serving. This example shows that the package contains 8 servings. But the information provided is for only 1 serving.

Look at the amount of fat, especially saturated and trans fat, in each serving.

See how many grams of carbs are in each serving.

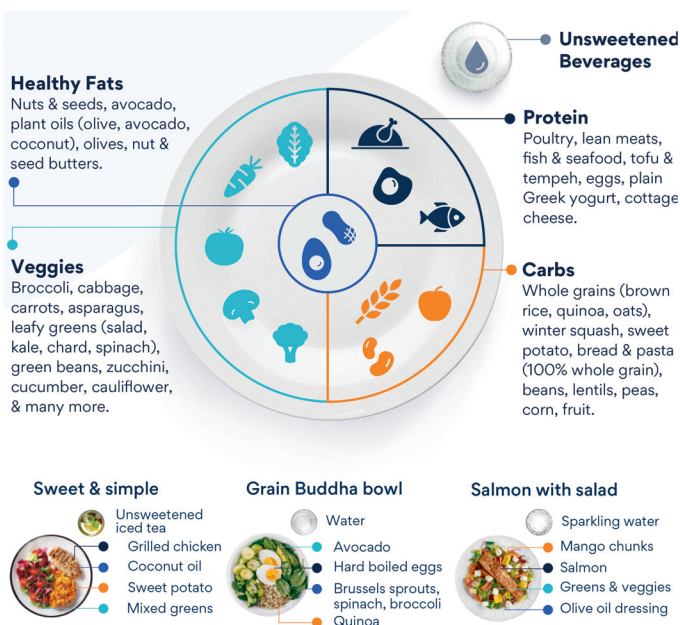
You can also see how many grams of Added Sugar the food contains. This is sugar that has been added as the food is made. Try to choose foods with less added sugar.

Decide whether the food fits into your plan.

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 Carbohydrate 37g	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 is used for general nutrition advice.

The Healthy Plate



YOU are the key to successfully controlling your diabetes. Managing your diabetes can help to lower your risk of complications such as heart attack, stroke and kidney issues. Below are some tips for those with diabetes:

LIVE A HEALTHY LIFESTYLE

The best approach to managing diabetes is to watch what you eat and to be active. Seeing a dietitian to help with food choices can be invaluable. Aim for 150 min/week of moderate-intensity exercise. To help members achieve these goals and stay on track, we've partnered with Brook to offer members the Brook Health Companion app. Brook makes it simple to take control of your health, including what you eat, medications you take, activity, sleep and more. Brook's team of registered dietitians can help you set the right goals and discover healthy habits that work for you. To learn more or to download the app, visit brook.health/join.

SEE YOUR HEALTH CARE PROVIDER REGULARLY

Your health care provider is your partner! Meeting with your health care provider on a regular basis allows for the opportunity to assess how well your diabetes is managed. It also gives you the opportunity to ask questions and to share any concerns you have with your provider.

GET ANY BLOOD WORK YOUR DOCTOR RECOMMENDS

Regular blood work helps your health care provider determine how well your diabetes is managed. Your health care provider will routinely monitor your A1C.

You may also be advised to obtain blood work to monitor your cholesterol and kidneys. Do not forget to discuss the results of your blood work at your appointments. It is important not only to "know your numbers" but to understand what they mean to you.

TAKE YOUR MEDICATIONS AS PRESCRIBED

It is important to take any prescribed medications exactly as your doctor advises. Missing doses of medications, or taking medications differently than prescribed, can result in your diabetes not being well controlled. Failing to take your medications as prescribed can also lead to having additional medications prescribed. Let your provider know if there is a reason you are not taking your medication such as a side-effect or cost issue. Do not forget to ask about generic medications.

ADDITIONAL RESOURCES

<https://diabetes.org>

