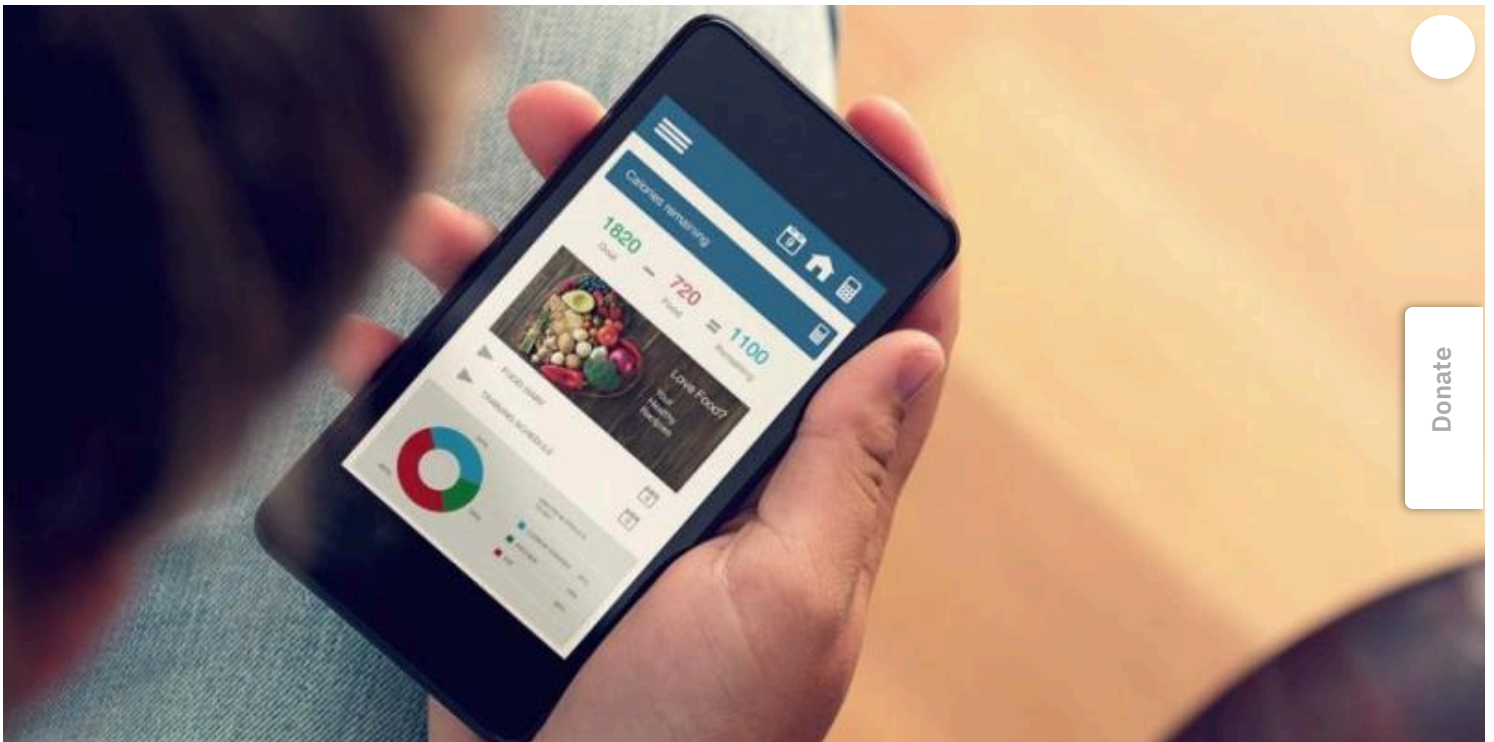


FOOD & NUTRITION

Carb Counting and Diabetes



Carbohydrates, or carbs, are naturally found in certain foods. For example, grains, sweets, starches, legumes and dairy all contain different amounts of carbs.

When foods and drinks with carbs are digested, the carbs break down into glucose to fuel our cells, and the body's blood glucose, or blood sugar, level rises. In people without diabetes, blood glucose levels rise after eating but the body's insulin response keeps levels from rising too high.

If you have diabetes, there's a problem with the insulin used to process blood glucose. How carb counting can help you manage your blood glucose depends on what type of diabetes you have and your treatment plan.

- **Type 1:** If you have type 1 diabetes, your pancreas stops making insulin, so you need to take insulin to manage blood glucose changes from the food you eat. To do this, you have to know how many carbs are in your meals and snacks—cue carb counting!
- **Type 2:** If you have type 2 diabetes, you are resistant to the insulin your body makes and you don't produce enough to reach your target blood glucose levels. It's important that you be mindful of your carb intake. To avoid high blood glucose, it helps to eat a consistent amount of carbs at meals and snacks throughout the day. People taking other medications may use a more basic form of carb counting than those taking insulin.

How do you count carbs?

Carb counting at its most basic level involves counting the number of grams of carbohydrate in a meal and matching that to your dose of insulin.

If you take **mealtime insulin**, that means first accounting for each carbohydrate gram you eat and dosing mealtime insulin based on that count. You will use what's known as an *insulin-to-carb ratio* to calculate how much insulin you should take in order to manage your blood sugars after eating. This advanced form of carb counting is recommended for people on intensive insulin therapy by shots or pump, such as those with type 1 and some people with type 2.

While people with type 2 diabetes who **don't take mealtime insulin** may not need detailed carb counting to keep their blood sugars in line, some prefer to do it. While some choose to stick with traditional carb counting, there are others who do a more basic version of carb counting based on "carbohydrate choices," where one "choice" contains about 15 grams of carb. Still others use the [Diabetes Plate](#)

[Method](#) to eat a reasonable portion of carb-containing foods at each meal by limiting whole grains, starchy vegetables, fruits or dairy to a quarter of the plate.

So, there are a few ways to go about it and it's really about personal preference, but remember that the best carb counting method for you is the one that addresses your medication and lifestyle needs. A registered dietitian nutritionist (RDN/RD) or Certified Diabetes Care and Education Specialist (CDCES) can help you figure out what works best for you.

How many carbs should I eat?

As for the ideal number of carbs per meal, there's no magic number. How much carbohydrate each person needs is in large part determined by your body size and activity level. Appetite and hunger also play a role.


In order to figure out how many carbs you should be eating, schedule an appointment with your RD/RDN or CDCES. They'll work out an eating plan specifically for you. This service, when provided by a dietitian, is known as medical nutrition therapy.

Diabetes self-management education (DSME) sessions also may include creating an eating plan. During the sessions, you'll determine your carb needs and how to divide your carbs among your meals and snacks. Everybody's insulin response is going to be different, and we don't want to make the diet more restrictive than it needs to be to manage blood sugars.

[Find a diabetes education program](#)

To get started, you'll want to figure out how many carbs you are eating at your meals and snacks now. Tracking your food intake and your blood sugar before and about 2-3 hours after your meals for a few days can provide useful information for you and your diabetes care team to see how different meals impact your blood glucose so you can determine the right amount of carbs for you.

How many carbs are in my food?

You can find how many carbs foods have by reading food labels. If a product doesn't have a food label, such as a whole piece of fruit or a vegetable, there are apps and other tools available to help you calculate. For example, the U.S. Department of Agriculture's [Food Composition Database](#)  has nutrition information for thousands of foods in a searchable format. The good news is, the longer you practice carb counting, the more you'll remember the carb content of the foods you commonly eat.

There are two items on the [nutrition facts label](#) that you'll want to pay attention to when carb counting:

- **Serving size.** The serving size refers to how much a person usually eats or drinks, and all the information on the label is about this specific amount of food. If you eat more, you will need to account for the additional nutrients. For example, eating two or three servings of something, means you will need to double or triple the amount of grams of carbs (and all other nutrients) on the label in your calculations.
- **Grams of total carbohydrate.** This number includes all carbs: sugar, starch and fiber. That's right: You don't have to worry about adding on grams of added sugars—they're included in the number of total carbs! The added sugars and other bullets below the total carbs listing are included to provide more information about what's in the food that you are eating. And while you don't need to worry about adding added sugars when it comes to counting carbs, you should still aim to minimize the amount of added sugar in the foods you eat.

What about protein and fat?

Carb counting would be simple if we only ate carbohydrate foods, but meals are usually a mix of carbohydrate, protein and fat. A meal high in protein and fat can

change how quickly the body absorbs carbs, which impacts blood sugar levels.

A great way to understand how food impacts your blood sugar is to keep track of your numbers and discuss them with your diabetes care team including a RD/RDN and/or CDCES. Continuous glucose monitoring (CGM) or self-monitoring of blood glucose can also help, especially for insulin dosing.

What should I eat?

Whether you count each carb gram or use one of the other meal planning methods, you'll want to choose foods that are rich in nutrients. Opt for whole foods that are unprocessed and in their natural state, such as vegetables, fruits, whole grains and lean proteins. Processed foods, such as packaged cookies, crackers and other snack foods, usually contain added salt, sugar, carbohydrates, fat or preservatives.

While this sounds like a lot, don't be overwhelmed—start by making small changes and sticking to them. Even small changes can have huge results!

Source

Carb counting and diabetes. (n.d.). American Diabetes Association. Retrieved September 24, 2024, from <https://diabetes.org/food-nutrition/understanding-carbs/carb-counting-and-diabetes>