

# DIABETES AND DIET: *CARBOHYDRATES*

## WHAT ARE CARBOHYDRATES?

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Carbohydrates, or carbs, can come in many forms, but the three main types are starch, sugar, and fiber. On nutrition labels on packaged foods, the term “total carbohydrate” refers to all three of these types. Carbohydrate foods should make up just one quarter of your plate. Examples and descriptions of each of the three main types are below:

## STARCH

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- » Vegetables like corn, winter squash, and all kinds of potatoes.
- » Grains like cereals, rice, and pasta.
- » Beans and lentils contain some starch (but also fiber).

## SUGAR

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- » Naturally-occurring sugars are found in milk or fruit.
- » Even though they are naturally-occurring sugars are “natural”, they should only be eaten a little.
- » Processed sugars should be barely eaten or avoided (added or processed sugars are found in sodas, sweets, and baked goods).

## FIBER

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- » Helps to improve digestion, manage blood sugar, and reduce risk of heart disease.
- » You may notice some of these foods are also in the starch category: some types of legumes like lentils, chickpeas, and beans.
- » Some examples of fibrous foods are:
  - » Fruits, especially those with edible skin like apples and pears, and those with edible seeds, like berries, tomatoes, and kiwi.
  - » Nuts and seeds are also a good source of fiber, but should be eaten in moderation because of the high fat content.
  - » Whole grains like quinoa, barley, farro, brown rice, whole oats, and whole wheat foods.

# DIABETES AND DIET: CARBOHYDRATES

## WHAT TYPES OF CARBOHYDRATES TO EAT

Overall, when you're eating carbs, try to eat more fiber, some starch, and only a little refined, highly processed, or sugary carbohydrate foods.

| COMPLEX CARBS  | SIMPLE CARBS   |
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| <ul style="list-style-type: none"> <li>» Eat more of these</li> <li>» Complex carbs have more nutrients, like fiber, essential vitamins, and minerals</li> <li>» Complex carbs are natural forms of food with less ingredients</li> <li>» Complex carbs help keep your weight down, blood sugar levels healthy, and reduces risks of other chronic diseases</li> </ul>                           | <ul style="list-style-type: none"> <li>» Eat less of these</li> <li>» Simple carbs are sugars</li> <li>» Simple carbs are processed and refined foods</li> <li>» Simple carbs increase your risk of out-of-control blood sugars, diabetic complications, and developing other chronic diseases</li> </ul>  |
| EXAMPLES   | EXAMPLES   |
| <ul style="list-style-type: none"> <li>» Fiber-rich fruit like apples, berries, bananas</li> <li>» Fiber-rich vegetables like broccoli, leafy greens, carrots</li> <li>» Nuts (a little at a time because of the high fat content) and seeds</li> <li>» Beans and legumes (peas, chickpeas)</li> <li>» Whole grains</li> <li>» Quinoa, buckwheat, whole wheat, whole oats, brown rice</li> </ul> | <ul style="list-style-type: none"> <li>» Raw, white, or brown sugar</li> <li>» Foods with corn syrup and high-fructose corn syrup</li> <li>» Fruit juice concentrate</li> <li>» Soda</li> <li>» White bread, rice, and pastas</li> <li>» Baked goods</li> <li>» Cookies, crackers, candy, chips</li> <li>» Breakfast cereals</li> <li>» 1-minute anything</li> </ul> |

# DIABETES AND DIET: *CARB COUNTING*

## TYPE 1 DIABETES

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If you have Type 1 Diabetes, your body no longer makes insulin. So when you eat, you need to take insulin to balance the carbs you're putting in your body. To do this correctly, you need to know how many grams of carbohydrates are in your meal.

Use an insulin-to-carb ratio to calculate how much insulin you will need to take to manage your blood sugars after eating.

## TYPE 2 DIABETES

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If you have Type 2 Diabetes, your body may still produce insulin, but it may not be enough, or your body may be resistant to the insulin. To avoid sugar spikes, it's important to eat the right amounts of carbohydrates at each meal throughout the day, rather than all at once.

People with Type 2 Diabetes who take oral medications may use a more basic method of carb counting than those on insulin.

To count carbs you can read labels or, if a product doesn't have a label, you can use apps and other tools to help calculate. The U.S. Department of Agriculture has a food database of nutritional information of thousands of foods. When you're reading a nutrition label, pay attention to the serving size and grams of total carbohydrates.

