

Definition: **carbohydrates** from *The Penguin Dictionary of Science*

An abundant class of biological molecules composed of carbon, with hydrogen and oxygen in a ratio of about two hydrogens and one oxygen per one carbon. Carbohydrates occur as ►monosaccharides (such as ►glucose), ►disaccharides (such as ►sucrose), ►oligosaccharides and ►polysaccharides (such as ►starch) and are a principal source of energy intake for humans.



Image from: [Sugar beet \(left\) and sugar cane \(right\) produce... in Philip's Encyclopedia](#)

Summary Article: **Carbohydrates**

From *Health Reference Series: Diet & Nutrition Sourcebook*

## What Are Carbohydrates?

<sup>1</sup>Carbohydrates are the body's main source of energy. They are sometimes called “carbs” for short. If you have heard of low-carb diets, you may think carbs are bad for you. Well, eating some carbohydrates is important. They help your body store energy for later use. Keep reading to learn more about:

- Types of carbohydrates
- Choosing carbohydrates

## What Are the Types of Carbohydrates?

The carbohydrate group includes simple carbohydrates, complex carbohydrates, and fiber.

**Simple carbohydrates** are “simple” because they are in the most basic form. They are also sometimes called simple sugars. They include the sugar in sugar bowls and in candy. They also include the kinds of sugar that are naturally in fruits, vegetables, and milk. So, if fruit and candy both have sugar, why should you pick the fruit? Fruit has

lots of other nutrients that are great for your health. An orange, for example, has vitamin C that is good for your skin.

**Complex carbohydrates** are “complex” because they are made of lots of simple sugars strung together. They are also called starches. They include bread, cereal, and pasta. They also include certain vegetables, like potatoes, peas, and corn. Your body needs to break starches down into sugars to use them for energy.

**Fiber** comes in many forms, like the outer parts of rice and other grains. Fiber offers a lot of health benefits, including helping with digestion. Also, because your body can't break it down, fiber helps you feel full. That means you may be less likely to overeat.

## Choosing Carbohydrates

Sure, you may want to have some sweet treats from time to time. Try to choose carbohydrates that offer the best boost for your health. Here's some useful info to help you choose:

### When Eating Grains, Choose Mostly Whole Grains

Grains are foods like wheat, rice, oats, and cornmeal. There are two main types of grains: whole grains

and refined grains.

- **Whole grains** are foods like whole wheat bread, brown rice, whole cornmeal, and oatmeal. They offer lots of nutrients that your body needs, like vitamins, minerals, and fiber.
- At least half the grains you eat should be whole grains.
- It's not hard to figure out whether a product has a lot of whole grain. Just check the ingredients list on the package and see if a whole grain is one of the first few items listed.
- Keep in mind that “multi grain,” “100% wheat,” and brown-looking bread are not necessarily whole grain breads.
- **Refined grains** mean that the food company has removed some of the grain—and, along with it, some of the great nutrients. That's why your best bet is whole grain.
- **Enriched products** means some of the nutrients have been added back in. If you eat products with refined grains, try to eat ones that are enriched.

### Try to Eat Foods with Dietary Fiber

Foods that contain good amounts of fiber include fruits, veggies, beans, nuts, seeds, and whole grains.

- The Nutrition Facts label on the back of food packages tells you how much fiber a product has. Aim to eat a total of around 25 grams of fiber per day.

### Try to Avoid Foods with a Lot of Added Sugar

- Foods with a lot of sugar can have many calories but not much nutrition.
- Eating a lot of calories can lead to being an unhealthy weight, which can cause health problems such as diabetes and heart disease.
- Aim to keep added sugars to less than 10% of your calories. If you eat around 2,000 calories a day, that means you want no more than 200 calories to come from added sugar. A can of regular soda might have around 150 calories from added sugar.
- Things that have a lot of added sugars include fruit drinks, energy or sports drinks, cakes, cookies, donuts, and ice cream.
- You can tell if a food or drink has added sugars by looking at the list of ingredients. The ingredients are listed from the greatest amount to the least amount. If a type of sugar comes early in the list, it means the product has a lot of sugar. Types of added sugars include:
  - Corn sweetener and corn syrup
  - Fructose and high-fructose corn syrup
  - Dextrose
  - Glucose
  - Maltose
  - Sucrose

- Honey
- Sugar and brown sugar
- Molasses
- Syrup and malt syrup
- If you are thinking about using a sugar substitute, you may wonder if they are safe. The U.S. Food and Drug Administration (FDA) approves their safety before they can be sold in foods and drinks like diet sodas. They can be used “in moderation,” so try not to eat and drink them all day long, and focus instead on foods that are packed with nutrients, such as fruits and vegetables. Some sugar substitutes you can buy include:
  - Aspartame, in products such as Equal
  - Sucralose, in products such as Splenda
  - Saccharin, in products such as Sweet'N Low
  - Acesulfame potassium, in products such as Sweet One
  - Stevia, in products such as Truvia

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This chapter includes text excerpted from “Carbohydrates,” Office on Women's Health (OWH), U.S. Department of Health and Human Services (HHS), November 5, 2013.

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Carbohydrates. (2015). In J. B. Shannon, *Health reference series: Diet and nutrition sourcebook: basic consumer health information about dietary guidelines, servings and portions, recommended daily nutrient intakes and meal plans, vitamins and supplements, weight loss and maintenance, nutrition for different life stages and medical conditions, and healthy food choices; along with details about government nutrition support programs, a glossary of nutrition and dietary terms, and a directory of resources for more information* (5th ed.). Detroit, MI: Omnigraphics, Inc. Retrieved from <https://search.credoreference.com/content/topic/carbohydrate>

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## APA

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## Chicago

"Carbohydrates." In *Health Reference Series: Diet & Nutrition Sourcebook*, by Joyce B. Shannon. 5th ed. Omnigraphics, Inc., 2015. <https://search.credoreference.com/content/topic/carbohydrate>

## Harvard

Carbohydrates. (2015). In J.B. Shannon, *Health reference series: Diet and nutrition sourcebook: basic consumer health information about dietary guidelines, servings and portions, recommended daily nutrient intakes and meal plans, vitamins and supplements, weight loss and maintenance, nutrition for different life stages and medical conditions, and healthy food choices; along with details about government nutrition support programs, a glossary of nutrition and dietary terms, and a directory of resources for more information*. (5th ed.). [Online]. Detroit: Omnigraphics, Inc. Available from: <https://search.credoreference.com/content/topic/carbohydrate> [Accessed 17 November 2019].

## MLA

"Carbohydrates." *Health Reference Series: Diet & Nutrition Sourcebook*, Joyce B. Shannon, Omnigraphics, Inc., 5th edition, 2015. *Credo Reference*, <https://search.credoreference.com/content/topic/carbohydrate>. Accessed 17 Nov. 2019.