

COUNTING ON CARBOHYDRATES

As energy-producing compounds, carbohydrates are typically divided into two classes: complex carbohydrates (starches and fiber) and simple sugars (naturally occurring sugars and added sugars). Although they're grouped into different classes, all carbohydrates share one important trait: they all consist of the same basic unit—sugar. Understanding the different qualities of each type of carbohydrate can help you achieve and maintain your weight loss goal.

Simple Carbohydrates

Because of their chemical arrangement, simple carbohydrates (also called simple sugars) taste sweet and perk up the flavor of foods. Examples include sucrose (table sugar), fructose (fruit sugar) and lactose (milk sugar). You can typically find sucrose, known as table sugar, in candies, cakes, cookies, etc. You can find naturally occurring sugar in fructose in fruit and lactose in milk and dairy products.

The table below lists some foods with high levels of simple sugars. Although you'll find fruit and fruit juices on this list because they contain high amounts of fructose, they also contain high levels of vitamins, minerals and fiber, making them good food choices. Be sure to watch your intake of the starred (*) foods on this list—they're also high in fat.

Complex Carbohydrates

Complex carbohydrates have a different, more complex, chemical sequence which makes them taste "starchy" instead of sweet. Examples include starches and fiber which are found in breads, cereal, pasta, rice, etc. Foods high in complex carbohydrates are usually bursting with vitamins, minerals, fiber, and sometimes protein. Therefore, you should select these foods more often than the foods high in simple sugars. Take a look at the examples below:

Foods High in Simple Carbohydrates (Also Known As Sugars) (Eat in Moderation)		
cakes*	fruit punches	pies*
candy*	gelatin desserts	puddings (w/ whole milk*)
chewing gum	honey	soft drinks
cookies*	ice cream*	syrup
doughnuts*	jellies, jams	frozen fruit pops
dried fruit	pastries*	

Foods High in Complex Carbohydrates (Best Choices)		
cereals (whole grain) (unsweetened)	grains (whole grain) (e.g., wheat, rye, oats)	
fresh fruits (whole)	pasta (whole grain)	
beans, peas, legumes	potatoes	
breads (whole grain)	rice (brown)	
corn	vegetables	

A Special Word about Fiber

Unlike sugars and starches, fiber can't be broken down and digested by our digestive juices. So think of fiber as your friend: it provides bulk (so it helps fill you up) but passes through your digestive tract without leaving calories behind. And scientific studies show that a high-fiber diet lowers the risk of heart disease and some forms of cancer. Fiber also promotes bowel regularity by hastening the passage of foods through the digestive tract.

^{*}Watch your intake. These are high in fat!

The recommended daily intake for fiber is 20-38 grams daily. To make sure you get enough fiber, select more of your carbohydrates from the list of foods high in complex carbohydrates. Review the *Fabulous Fiber* module to learn more about how fiber works and how to add it to your diet.

Carbohydrates Fuel the Body

Carbohydrates are digested in the intestines, broken down into small simple sugar units and carried to the liver, where they are converted to glucose. This glucose circulates throughout the body, supplying energy to all its tissues and organs. Fueling the body with this energy is the main function of carbohydrates in the diet. All simple sugars and complex carbohydrates (with the exception of fiber) supply energy at four calories per gram. Keep in mind that complex carbohydrates (starches and fiber) provide a more sustained energy, while simple sugars provide an energy level that may peak and then drop quickly.

How much is too much? Although carbohydrates provide energy, too much of them can pack on the pounds. Here's how: The body converts excess glucose to either glycogen or body fat. The good news: glycogen serves as a back-up energy source. (An average 150-pound person can store about 1,750 calories as glycogen.) The bad news: once glycogen stores are full, the excess glucose converts to fat. Unfortunately, the body can store an unlimited amount of fat, so it's important to eat only as many calories as you need.

Carbohydrates and Diet

Carbohydrates play an important role in your diet. They can be found in four of the six basic food groups: vegetables, grains, fruits and milk. Vegetables and grains are sources of complex carbohydrates and dietary fiber, while the carbohydrates in milk, fruit and fruit juices are comprised of primarily simple, naturally occurring sugars.

Foods rich in complex carbohydrates aren't necessarily rich in calories. The real problem stems from the high-fat toppings added to carbohydrate foods. For example, do you put sour cream or gravy on your potatoes? Butter on your bread or vegetables? Cheese sauce on your rice or pasta? An innocent baked potato, at about 100 calories, can transform into a 300-calorie side dish when smothered in butter and sour cream. It is also important to choose whole grains instead of refined white bread products.

Simple sugars also suffer from guilt by association—the sugar in sweet desserts (i.e. ice cream, pies, cookies, etc.) suffers from a "fattening" reputation when, in reality, the calorie-culprit lies in the desserts' fat content. When you want a sweet treat, limit foods containing only simple sugars (such as candy and baked goods), and choose fresh fruit (which still contain simple sugars but also include vitamins, minerals and fiber).

Take advantage of the variety of delicious food choices available in this category, incorporate healthy preparation techniques, and enjoy!