## Science

## Fact Sheet: Carbohydrate

*What is it?* Carbohydrate is one of the major nutrients that the body requires in adequate amounts every day. The basic building blocks of carbohydrates are sugar molecules that can be linked together in many ways to form a vast array of carbohydrates in foods in the forms of sugars and starches. We eat sugars naturally in foods every day – fruits are rich in a single-molecule sugar called fructose and milk contains lactose made from two different sugar molecules hooked together. Longer arrangements of sugar molecules make up starches, fiber and complex carbohydrates found in foods like whole grains, fruits and vegetables.

*What does it do?* Carbohydrates are generally the most abundant nutrient in the diet, and for good reason. Carbohydrates are the major source of fuel for the body – the body *can* use fat or protein for fuel, but these nutrients are put to better use for building cells and tissues. In foods, carbohydrates provide flavor (such as sweetness) and structure (such as fiber in a carrot or a stalk of celery). Fiber provides bulk to the diet and assists with regularity.

*Why is it important?* As the primary source of fuel to the body, carbohydrates are critical to keep us going. If we didn't consume enough carbohydrate in the diet, it would be difficult to get through daily activities or to exercise adequately. Fiber is important in the diet to help keep the digestive tract running smoothly. And, having enough carbohydrate in the diet means that we don't have to use dietary protein for fuel - that way, protein can be spent to build and repair tissue.

Where is it found? Starchy foods such as potatoes, peas, corn and grain products (rice, cereal, bread, pasta, crackers, etc.) are 'carbs', but fruits and vegetables are also excellent sources of carbohydrate. Sugars – like table sugar, brown sugar, honey, maple syrup – are also sources of 'simple' carbohydrates. The healthiest carbohydrate sources are whole fruits, vegetables and whole grains like whole wheat, barley or oats, because these foods provide not only carbohydrate, but also fiber and phytonutrients for good health. These sources of carbohydrate should be emphasized in the diet, with less emphasis on sugars, sugary foods and refined carbohydrate products such as white rice, white bread, pretzels, regular pasta, and products made with white flour such as cakes, cookies and pastries.

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