

## Food Labels: Carbohydrates

### CARBOHYDRATES AND SUGARS IN YOUR FOOD

As part of an overall healthy eating plan, you can enjoy carbohydrates and sugars in moderation. Foods containing carbohydrates must be chosen wisely so that your diet is nutritionally adequate and your weight stays within healthful limits.

Carbohydrates are important sources of energy (calories), providing 4 calories per gram. This energy is needed for physical activity and proper organ function. When these calories are not used for energy, your body stores the excess as fat.

Get most of your “carbs” from starchy foods, which the body slowly breaks down into simple sugars. Choose unrefined carbohydrates like whole-grain breads, cereals, rice and pasta, as well as fruits, starchy vegetables and legumes. These foods are great sources of complex carbohydrates, and many are low in fat. They also are nutrient-dense because they generally supply vitamins, minerals, fiber, and many important phytonutrients.

The *2005 Dietary Guidelines for Americans* makes the following recommendations about daily consumption of unrefined carbohydrate foods, based on a 2,000-calorie diet:

- Choose fiber-rich fruits, vegetables, and whole grains often.
  - 6 ounces or more of grain products, with at least half of this amount being whole grain products
  - 2 ½ cups vegetables
  - 2 cups fruit (not juice)
- Choose and prepare foods and beverages with little added sugars or caloric sweeteners

- Reduce the incidence of dental caries (tooth decay) by practicing good oral hygiene and consuming sugar-and starch-containing foods and beverages less frequently.

According to nutrition experts, carbohydrates should provide 45-65% of your total daily calories. That means carbohydrates should supply 1,100 calories or more in a 2,000-calorie-a-day diet.

### FACTS ON FOOD LABELS

Food labels contain clues to a food’s carbohydrate content, including the amount per serving. Two important parts of a food label are the “Nutrition Facts” panel, which contains nutrition information, and the ingredients list.

**“Nutrition Facts” Panel:** Since 1994 food manufacturers have been required to provide information on certain nutrients of greatest public concern. As a result, total carbohydrate, dietary fiber, and sugars are required under the “Nutrition Facts” panel of food labels. The serving size and the listed nutrients are consistent, making it easy to compare similar products without any calculations.

**% Daily Values (% DVs)** are listed in a column on the “Nutrition Facts” label. By looking at these percentages, you easily can determine whether a food contributes a lot or a little of a particular nutrient to your daily diet.

Use % DV as your guide for identifying which foods are high or low in a nutrient so that you eat enough of some nutrients while not eating too much of others. Select foods with a higher % Daily Value (% DV) for total carbohydrate, dietary fiber, vitamins and minerals.

The label does the math for you, putting all the numbers on the same scale of 0-100% DV for the day. These percentages are based on a 2,000-calorie daily diet, which is average for someone who is moderately active. Your daily values may be higher or lower depending on your calorie needs. The % DV column does not add up vertically to 100%.

Few foods contain 100 percent of the Daily Value for any nutrient. To determine how your total daily diet measures up to the recommended amount, add the % DVs for the individual nutrients from different food choices.

Quick Guide to % DV makes it easy to choose foods. It tells you that 5% DV or less of a nutrient is low, and 20% DV or more is high. Select foods with 20% DV or more of nutrients that you want to consume in larger amounts (e.g., fiber and calcium). On the other hand, choose foods often that contain 5% DV or less of nutrients that you want to limit (e.g., total fat, saturated, fat, trans fat, cholesterol and sodium).

<b>Nutrition Facts</b>	
Serving Size 1 packet (28g) makes 6-8 fl oz Servings Per Container 10	
Amount Per Serving	
<b>Calories</b> 110	Calories from Fat 10
% Daily Value*	
<b>Total Fat</b> 1g	<b>2%</b>
Saturated Fat 0.5g	2%
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 150mg	<b>6%</b>
<b>Total Carbohydrate</b> 24g	<b>8%</b>
Dietary Fiber 1g	3%
Sugars 19g	
<b>Protein</b> 2g	
<b>INGREDIENTS:</b> SUGAR, NONFAT MILK, WHEY, PARTIALLY HYDROGENATED SOYBEAN OIL, COCOA PROCESSED WITH ALKALI, MARSHMALLOWS (SUGAR, CORN SYRUP, FOOD STARCH-MODIFIED, GELATIN, SODIUM HEXAMETAPHOSPHATE, ARTIFICIAL AND NATURAL FLAVORS, BLUE 1), CORN SYRUP SOLIDS, SODIUM CASEINATE, CARBOXYMETHYLCELLULOSE, SALT, ARTIFICIAL FLAVOR.	

Example: On this label the total amount of carbohydrates in one serving (1 packet) is 24 g, or 8% DV. The dietary fiber is 1 g, or 3% DV. The total amount of sugars is 19 g. Currently there is no standard reference for sugar consumption.

The product in this example lists sugar as the first ingredient, which means there is more of it than any other ingredient. Other sources of sugar found on the list of ingredients are: nonfat milk, whey, marshmallows, and corn syrup solids.

**Total Carbohydrate** is the part of your diet that affects blood glucose levels. The Daily Value (DV) for total carbohydrate is 300 grams (g) or 100% DV, based on a 2,000-calorie diet. This number combines several types of carbohydrates: dietary fiber, sugars and complex carbohydrates.

Listed below total carbohydrate on the food label are the values for dietary fiber and sugars. It is voluntary to list the number of grams of sugar alcohols (polyols) per serving.

Dietary fiber is included in total carbohydrate. Fiber promotes bowel regularity and helps fight some diseases. However, fiber is not a nutrient, because it is neither digested nor absorbed by the body.

Recommended intake of dietary fiber is 14 grams per 1,000 calories consumed. The Daily Value for fiber is 25 grams. The Dietary Reference Intake (DRI) for fiber is 25 grams per day for adult women and 38 grams per day for adult men.

Sugars, which are listed under total carbohydrate, include both naturally occurring sugars and added sugars. Therefore, you must check the ingredients list to identify the types of sugar in the product. The label can claim “no sugar added,” yet the beverage or food can contain naturally occurring sugar from fructose in fruits or lactose in milk, as well as sugar in vegetables, cereals, grains, and legumes.

Added sugars supply calories but little, if any, of the essential nutrients. A few names for added sugars include: table sugar (sucrose), corn syrup, maple syrup, fruit juice concentrate, honey, maltose, dextrose and other caloric sweeteners.

There is no daily reference value for the total amount of sugars you should eat every day. A good rule of thumb is to limit added sugars to 10% or less of your daily calories. To limit sugar in your diet, compare labels of similar products and choose foods with the lowest amount.

Sugar alcohols (sorbitol, xylitol, and mannitol) are other sweeteners that occur naturally in foods. Often they are additives in sugar-free products such as gum and mints. Although not as sweet as sucrose, they have the advantage of being less likely to cause tooth decay. When sugar alcohols are used as the sweetener, the product may be labeled “sugar-free,” but the product may not be “calorie-free.”

**Ingredients List:** The ingredients list is usually located under the “Nutrition Facts” panel or on the side of a food label. This list is required when a food is made with more than one ingredient.

Ingredients are listed in order by weight, with the greatest amount listed first and the least amount last. Check this list carefully, paying special attention to the first three ingredients. Avoid products in which sugar is the main ingredient.

Naturally occurring sugars, such as those in fruit and milk, aren’t listed on the ingredients list. In addition, you won’t always see the word “sugar” in the ingredients list.

These ingredients are names for “added sugars” that may be in processed foods:

- sugar, brown sugar, raw or invert sugar
- corn sweetener
- syrup or malt syrup
- corn syrup or high-fructose corn syrup
- honey
- molasses
- fruit juice concentrates
- glucose
- lactose
- dextrose
- fructose
- maltose

These names can be listed separately. When added together, sugar may become the main ingredient.

**Nutrient and Health Claims:** In addition to the “Nutrition Facts” label on the side or back of the package, check the health and nutrient claims on the front of the product. These claims, which provide optional information, tell you that the food contains desirable levels of the stated nutrients.

**Nutrient Claim:** “Sugar-free” is a nutrient claim. If a label reads “sugar-free” or “no added sugar,” then the polyol (sugar alcohol) content also must be declared separately under carbohydrates. The term “sugar alcohol” must be used on the “Nutrition Facts” label if there is more than one polyol present.

**Health Claim:** “A good source of dietary fiber” is a health claim. A food with a health claim is a smart choice, because the food must meet strict standards to display the FDA approved claim.

Health claims link food or food components with a lowered risk for some chronic diseases. For example, a diet adequate in fiber-containing grain products, fruits and vegetables may reduce the risk of coronary heart disease and certain cancers.

For more information on carbohydrates request: [HGIC 4019 Whole Grains](#); [HGIC 4052 Fiber](#); and [HGIC 4053 Limit Sugar](#).

For more information on food labeling request: [HGIC 4056 Reading the New Food Labels](#); [HGIC 4057 Determining Nutritional Value of Foods](#); [HGIC 4058 Food Labels: Fat and Cholesterol](#); [HGIC 4060 Serving Sizes for Special Diets](#); [HGIC 4061 Nutrient Claims on Food Labels](#); and [HGIC 4062 Nutrient Density](#).

Sources:

1. U.S. Food and Drug Administration (FDA), Center for Food Safety and Applied Nutrition. *How to Understand and Use the Nutrition Facts Label*. November 2004. [www.cfsan.fda.gov/~dms/foodlab.html](http://www.cfsan.fda.gov/~dms/foodlab.html)
2. U.S. Department of Health and Human Services and U.S. Department of Agriculture. *Dietary Guidelines for Americans 2005*. <http://www.healthierus.gov/dietaryguidelines>
3. Duyff, Roberta Larson. American Dietetic Association *Complete Food and Nutrition Guide, 3<sup>rd</sup> Edition*. 2006.
4. International Food Information Council Foundation. *Frequently Asked Questions About Sugars and Carbohydrates*. April 2005. [www.ific.org/publications/qa/sugarscarbsfaq.cfm](http://www.ific.org/publications/qa/sugarscarbsfaq.cfm)
5. International Food Information Council Foundation. *Sugar Alcohols Fact Sheet*. September 2004. [www.ific.org/publications/factsheets/sugaralcohols.cfm](http://www.ific.org/publications/factsheets/sugaralcohols.cfm)
6. *Learning About Carbohydrates*. January 2005. <http://www.kidshealth.org/kid/nutrition/food/carb.html>

---

This information has been reviewed and adapted for use in South Carolina by J. G. Hunter, HGIC Information Specialist, and K. L. Cason, Professor, State EFNEP Coordinator, Clemson University.

---

This information is supplied with the understanding that no discrimination is intended and no endorsement by the Clemson University Cooperative Extension Service is implied. (New 11/06).