

CARBS THAT DON'T COUNT!

Carbohydrates include starch, sugar, and fibre.

- Starch and sugar will raise blood glucose levels, while fibre will not. When reading nutrition labels, **subtract** the amount of fibre from the total carbohydrate to find the amount of *available* carbohydrate that is able to raise the blood sugar.
- While sugar values may be indicated on a nutrition label, the amount of starch is hidden in the total carbohydrate value. **Subtract** the sugars and fibre from the amount of total carbohydrate to find the starch value.

Sweeteners

- In many foods today, a variety of sweeteners is used in place of table sugar to make a product sweet-tasting and sometimes being lower in calories and sugars.
- Note that some sweeteners can contain significant amounts of carbohydrates (e.g. honey, lactose, fructose, and fruit juice concentrate). Others, such as sugars alcohols (see below) and non-nutritive sweeteners, such as sucralose (Splenda®), acesulfame K, stevia and aspartame (Equal®) do not generally affect the blood sugars.

Sugar alcohols

- Sugar alcohols, also called "polyols", are carbohydrate-based sweeteners that are very slowly and incompletely absorbed, so they don't generally raise the blood sugar.
- In general, we no longer include the sugar alcohols in carb counts. **Subtract all** the value of sugar alcohol from the amount of total carbohydrate to find the total available carbohydrate.
- Sugar or sugar alcohol? Sugar names end in "-ose", such as glucose, sucrose, fructose, or lactose. Sugar alcohols typically end in "-ol", such as isomalt, lactitol, maltitol, mannitol, sorbitol, xylitol and erythritol.
- Eating lots of sugar alcohols can cause gas, bloating, and diarrhea. The CDA suggests no more than 10 grams per day.

YOU DO THE MATH #1!

If the label says...

Carbohydrate 23 g

Fibre 6 g

Sugars 7 g

then...

Available carbohydrate

= total carbs - fibre

= _____ g

Starch

= total carbs - fibre -
sugar

= _____ g

YOU DO THE MATH #2!

If the label says...

Carbohydrate 28 g

Sugars 5 g

Sugar alcohols 7 g

then...

Available carbohydrate

= total carbs - sugar
alcohols

= _____ g

"NATURAL SUGAR"

Many natural foods contain a fair amount of sugar, particularly fruits. It is a common misconception that this sugar is healthier than added sugar, or that it doesn't cause a rise in blood sugar.

Fat substitutes

- As with sugar substitutes, fat replacements are also used to lower the amount of calories and fat that a product contains.
- Fat substitutes can be fat-, protein-, or carbohydrate-based. Some of the carbohydrate-based substitutes don't have a potential effect on your blood glucose. Others do, but they are already counted as starch or fibre, so you don't need to adjust your total available carbohydrate for them.
- Carb-based fat substitutes that you might see in the list of ingredients include: maltodextrin, carrageenan, guar gum, carob bean gum, locust bean gum, cellulose gum, methylcellulose and other fibres, to name a few.

IS IT A SUGAR OR A FAT?





Polydextrose (Litesse®) is a fat substitute that's made from glucose and sorbitol. BUT it has NO significant effect on your blood glucose levels! The polydextrose is included in the fibre content on the nutrition label.

Low-carb vs. low-fat products

- Be aware that products that advertise as being low-fat or fat-free may be relying on a number of different fat substitutes, and are consequently high in carbohydrate. On the other hand, products that advertise as being low-carb may not necessarily be low-fat or low-calorie.
- Take a look at the following ice cream examples to see how regular, low-fat, and low-carbohydrate products compare in calories, fat, and carbohydrate for a ½-cup serving, as well as in their ingredients (partial list).

FABULOUS FIBRE

Dietary fibre refers to the portion of the total carbs that do not get absorbed or raise the blood sugar. There are different classes of dietary fibre, and a mixture of these leads to improved gut health, better insulin sensitivity and improved blood sugar and cholesterol levels.

Regular Ice Cream*	Low-Carb Ice Cream*	No-Sugar-Added Ice Cream*	No-Sugar-Added Light Ice Cream*
			
per ½-cup serving: Calories: 170 Fat: 10 g Carb: 19 g *(all of which all is sugar)	per ½-cup serving: Calories: 150 Fat: 10 g Carb: 13 g *(of which 10 g are fibre, sugar alcohols and polydextrose)	per ½-cup serving: Calories: 90 Fat: 3 g Carb: 13 g *(of which 5 g are fibre, sugar alcohols and polydextrose)	per ½-cup serving: Calories: 100 Fat: 0 g Carb: 22 g *(of which 12 g are fibre, sugar alcohols and polydextrose)

YOU DO THE MATH #3!

Here's one last challenge:

If the label says...

- Carbohydrate** 33 g
- Fibre 3 g
- Sugars 15 g
- Starch 11 g
- Sugar alcohols 4 g

then...

Available carbohydrate

= ____ g

The nutrition labels on common products can be confusing. Always read the label to make the best choice for you.

ANSWERS

- #1: Available carbs 17 g; starch 10 g
- #2: Available carbs 21 g;
- #3: Available carbs 26 g.