

Sugars and Sugar Substitutes

Most people understand that eating too much carbohydrate can cause high blood sugar. Since sugar is a carbohydrate, should a person with diabetes avoid all sugar? Are sugar substitutes safe to eat? What about the sugar alcohols found in many foods?

Types of Sugar

When people hear the word “sugar” they usually think of the white stuff in the sugar bowl. That familiar form of sugar is really sucrose. There are other types of sugars as well. Sugars occur naturally in many foods such as fruits, vegetables and dairy foods. They can be produced commercially and added to many foods and beverages. Some common sugars found in foods include:

- Corn syrup, high fructose corn syrup
- Fructose
- Glucose
- Lactose
- Maltose
- Sucrose

Sugar Substitutes (Artificial Sweeteners)

Sugar substitutes, also called non-nutritive or artificial sweeteners, are products made to provide intense sweetness without calories. The Food and Drug Administration (FDA) has tested these products extensively and established an acceptable daily intake (ADI) for them. This means that if you don't eat or drink more than the ADI, you can safely consume artificial sweeteners without bad effects. There are many overblown stories on the internet that sugar substitutes are not safe to eat and drink. As always, you need to weigh the pros and cons and decide for yourself what is best.

There are 5 artificial sweeteners approved by the FDA:

- Saccharin- the pink package; sold as Sweet 'n'Low
- Aspartame- the blue package; sold as Nutrasweet
- Acesulfame K- used by manufacturers in desserts and beverages
- Sucralose- the yellow package; sold as Splenda
- Neotame- used by manufacturers in baked goods, gum and beverages

There is another popular artificial sweetener call Stevia which is an herb. The leaves of this herb, when dried and finely ground are very sweet. The FDA has not approved it as a sweetener. It is sold widely in health food stores.

Sugar Alcohols

Sugar alcohols are sugar replacers which are used in many sugar-free and reduced-sugar products. Sugar alcohols are not the same type of alcohol as you find in beer, wine or liquor. They have about half the calories and carbohydrate of sugar. They are not totally digested in the body and may cause gas and/or diarrhea if eaten in large amounts. Many foods now contain sugar alcohols. Look for this information on the food label. For people

who are counting carbs, count half the sugar alcohol as carb. For example, 10 grams of sorbitol = 5 grams of carbohydrate. Common sugar alcohols include:

- Sorbitol
- Mannitol
- Isomalt
- Xylitol
- Maltitol

Myths or Truths

Many people with diabetes have been told “you can’t have any sugar”. This is not true. Sugar is another carbohydrate just like bread and pasta. With planning, a little bit of sugar can fit into most meal plans. Check the examples below.

<u>Food/Beverage</u>	<u>Equivalent teaspoons of sugar</u>	<u>Carb servings</u>
Angel food cake, 1 slice	4	1
Graham cracker (1 full sheet)	3	1
12 ounce Coke	9	2+
½ cup ice cream	4	1
1 Tablespoon jam	3	1
1 Tablespoon all fruit spread	1	less than ½

What’s best for you?

- If you really like sugar on your cereal or in your coffee.....
1 teaspoon of sugar = 4 grams of carbohydrate (about equal to ¼ slice of bread).
- If you love real Vermont maple syrup.....
1 Tablespoon = 15 grams of carbohydrate (about equal to 1 slice of bread).
- If you choose to use sugar substitutes or reduced sugar products, you will have more room to eat a variety of other healthy carbs.
- If you have excessive abdominal gas or diarrhea, limit use of foods or beverages with sugar alcohols.
- If you are concerned about food additives and artificial sweeteners, the Center for Science in the Public Interest ¹ researched sweeteners and found:
 - Sucralose (Splenda) and neotame are safe.
 - Sugar alcohols while safe, may give you the runs if you eat too much
 - Aspartame is probably safe.
 - Saccharin isn’t safe, though the risk is small
- If you want to read more about artificial sweeteners, check....
 - Center for Science in the Public Interest (CSPI): www.cspinet.org.
 - International Food Information Council Foundation (IFIC): www.ific.org
 - American Diabetes Association: www.diabetes.org.
 - American Dietetic Association: www.eatright.org.

¹Nutrition Action Health Newsletter, March 2004