

Sugar Alcohols

What is a sugar alcohol?

Sugar alcohols, also known as polyols, are neither sugar nor alcohol. They are carbohydrates that are not completely absorbed by the body. They do not cause as much increase in blood sugar levels as regular table sugar.

Where do sugar alcohols come from?

Sugar alcohols occur naturally in certain fruits and vegetables, and some are even produced by the human body. However, large amounts of sugar alcohols are produced by food manufacturers for use in commercial food products.

Why are sugar alcohols used in food products?

Sugar alcohols tend to have fewer calories than regular sugar, with 0-3 Calories per gram versus 4 Calories per gram of sugar. Sugar alcohols impart various degrees of sweetness, and are used by the food industry as sugar substitutes in order to lower both the calorie and sugar content of foods.



The chart below lists some of the most common sugar alcohols and some information about them.

Sugar Alcohol	Calories per Gram	Approximate Sweetness (Table sugar = 100%)	Typical Uses in Food
Sorbitol	2.6	50 - 70%	Sugar-free candies, chewing gums, frozen desserts and baked goods
Xylitol	2.4	100%	Chewing gum, gum drops and hard candy, drugs, cough drops, cough syrups, children's chewable vitamins, toothpastes and mouthwashes, foods for special dietary purposes
Maltitol	2.1	75%	Hard candies, chewing gum, chocolates, baked goods and ice cream
Isomalt	2.0	45 - 65%	Candies, toffee, lollipops, fudge, wafers, cough drops
Lactitol	2.0	30 - 40%	Chocolate, some baked goods (cookies and cakes), hard and soft candy and frozen dairy desserts
Mannitol	1.6	50 - 70%	Dusting powder for chewing gum, chocolate-flavored coating for ice cream and confections
Erythritol	0 - 0.2	60 - 80%	Sweetener in low calorie foods
Hydrogenated Starch Hydrolysates (HSH)	3	25 - 50%	Sweetener in low calorie foods,

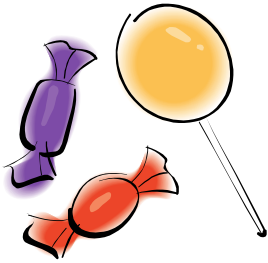
Source: International Food Information Council (IFIC) Foundation, 2008. <http://www.ific.org/publications/factsheets/sugaralcohols.cfm>.

Do sugar alcohols damage teeth?

Sugar alcohols do not contribute to tooth decay.

Are sugar alcohols safe? Are there side effects?

Sugar alcohols are considered safe for people with diabetes and the general public. However, sugar alcohols can cause gas, bloating, diarrhea, and headaches when consumed in large amounts. Some people may experience these side effects even with small amounts of sugar alcohols. The American Dietetic Association currently advises avoiding intakes greater than 50 grams per day of sorbitol or greater than 20 grams per day of mannitol, as they “may cause diarrhea.”



Sugar alcohols may cause:

Gas
Diarrhea
Bloating
Headaches



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References:

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<http://snap.nal.usda.gov/>

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