

Sweeteners At A Glance



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	Sugar	Honey	High Fructose Corn Syrup	Fruit Juice Concentrate	Glucose	Saccharin
How Many Calories? (dry solids basis)	4/gram	4/gram	4/gram	4/gram	4/gram	0/gram
How Sweet Is It?	Benchmark	As sweet as sugar	HFCS-55 as sweet as sugar; HFCS-42 about 92% as sweet	As sweet as sugar	67% as sweet as sugar	300-500 times sweeter than sugar
What Sugars Are In It?	50% fructose 50% glucose	48% fructose 52% glucose	HFCS-55: 55% fructose 45% glucose HFCS-42: 42% fructose 58% glucose	Grape Juice: 50% fructose 50% glucose	100% glucose	100% saccharin
Is It Natural?	Yes	Yes	Yes	Yes	Yes	No
How Is It Used?	Sweetener, preservative, flavor enhancer, texturizer, bulking agent, fermentation agent, humectant (retains moisture)	Sweetener, preservative, flavor enhancer, texturizer, humectant (retains moisture)	Sweetener, preservative, flavor enhancer, texturizer, bulking agent, fermentation agent, humectant (retains moisture)	Sweetener, preservative, flavor enhancer, humectant (retains moisture)	Preservative, flavor enhancer, texturizer, bulking agent	Sweetener, calorie reducer
What Are The Benefits?	Maintains flavor when heated, excellent creaming agent, gives cookies a crunchy top	Lends a distinct floral note to products, contains antioxidant compounds	Enhances fruit and spice flavors, keeps foods fresh, improves texture of high fiber products	Similar benefits to HFCS and honey; provides a consumer friendly label	Improves textures and enhances colors without masking natural flavors	Provides sweetness without calories

Continued...	Sugar	Honey	High Fructose Corn Syrup	Fruit Juice Concentrate	Glucose	Saccharin
What Is It Made From?	Domestic and imported sugar cane and sugar beets	Nectar from a variety of flowers and trees; most honey is now imported from China	Yellow dent corn primarily grown in the United States	Juices from a variety of domestic and imported fruits, primarily apple, grape, and pear	Yellow dent corn primarily grown in the United States	Methyl anthranilate
How Is It Made?	Pulping sugar cane (slicing sugar beets); milling to separate juice from fiber (diffusion to extract sugar from beets); removal of impurities; evaporation; crystallization; separation of crystals via centrifugation; decolorization; evaporation; separation	Extracting honey from the comb by centrifugal force, gravity or straining; heat pasteurization; high pressure filtration	Steeping corn; physical separation of the kernel; break down starch to glucose; use of enzymes to invert glucose to fructose; removal of impurities; and blending of glucose and fructose	Heating fruit juices to remove water; treating with enzymes; filtering	Steeping corn; physical separation of the kernel; break down starch to glucose; removal of impurities	Diazotization of methyl anthranilate to 2-carbomethoxybenzene-diazonium chloride; sulfonation followed by oxidation to 2-carbomethoxybenzene-sulfonyl chloride; amidation followed by acidification to form insoluble acid saccharin; addition of sodium or calcium hydroxide to produce soluble sodium and calcium saccharin

	Xylitol	Erythritol	Stevia	Agave	Splenda	Zsweet
How Many Calories?	2.4/gram	0.2/gram	0/gram	2.9/gram	0/gram (less than 5 cal/serving)	0/gram
How Sweet Is It?	Equally as sweet as sugar at 10% solids	65% as sweet as sugar	Leaves are 30-45 times sweeter than sugar; Extracts can have up to 300 times the sweetness of sugar (1 teaspoon of Stevia leaves or ¼ teaspoon of extract powder replaces 1 cup of sugar)	25 % to 75% sweeter than sugar (1/4 to 3/4 cup replaces 1 cup sugar for most recipes depending upon vendor and species)	As sweet as sugar	As sweet as sugar
What Sugars Are In It?	100% xylitol	100% erythritol	100% Stevia; sweetness is derived from the glycosides in the leaves	10% glucose 90% fructose (% varies slightly among vendors)	Sucralose (derived from sucrose), dextrose and/or maltodextrin	Erythritol, fructose
Is It Natural?	No	Yes	Yes	Yes	No	Yes
How Is It Used?	Sweetener	Sweetener, calorie reducer	Sweetener, flavor enhancer, calorie reducer	Sweetener, flavor enhancer, calorie reducer	Sweetener, flavor enhancer, calorie reducer	Sweetener, flavor enhancer, calorie reducer
What Are The Benefits?	Reduces plaque formation and aids in the repair of damaged tooth enamel	Low in calories and high digestive tolerance	Antimicrobial, use much smaller amounts than sugar, zero calorie, heat stable, pH stable, non-fermentable, zero carbohydrate, zero glycemic index, does not raise blood sugar, slower onset and longer duration than sugar	Pours more easily than honey, dissolves easily in liquid, absorbed more slowly by the body, lower on the glycemic index, contains minerals, sweeter than sugar so you use less,	Provides sweetness without calories	Provides sweetness without calories, zero glycemic index, kosher

	Xylitol	Erythritol	Stevia	Agave	Splenda	Zsweet
Benefits Continued...				Contains no processing chemicals, kosher, long shelf life, will not solidify		
What Is It Made From?	Glucose primarily derived from the corn wet milling process or xylan from hardwood trees	Glucose primarily derived from the corn wet milling process	Leaves or powdered extract of <i>Stevia rebaudiana</i>	Nectar from the Agave cactus native to Mexico	Derived from cane sugar (fructose and glucose)	Erythritol and natural fruit extracts
How Is It Made?	hydrogenation of xylose	fermentation of glucose	Water extraction from the dried leaves, decoloration, and purification using ion-exchange resins, electrolytic techniques, or precipitating agents	Juice is expressed from the core of the Agave cactus, filtered, and then heated to hydrolyze the carbohydrates into sugars. The juice is then concentrated into syrup.	3 hydrogen-oxygen groups on a molecule of cane sugar are replaced with 3 chlorine atoms, sucrose is converted to sucralose	Fermentation of glucose by a safe and suitable non-genetically modified microorganism, Moniliella Pollinis (a food grade yeast), Purification, ultra-filtration, crystallization, and drying, White crystal, 99.9% purity (no residues of yeast or any other materials). GMO Free.