

**Diabetes** means your blood glucose (often called blood sugar) is too high. The pancreas releases insulin into the blood. Insulin helps the glucose from food get into your cells. If your body doesn't make enough insulin, or if the cells do not respond to the insulin that is produced, then the glucose stays in your blood instead. Your blood glucose level then gets too high, causing pre-diabetes or diabetes.

**Signs of Diabetes:**

- being very thirsty
- urinating often
- feeling very hungry or tired
- losing weight without trying
- having dry, itchy skin
- having sores that heal slowly
- losing the feeling in your feet or having tingling in your feet
- having blurry eyesight

**Signs of Insulin Resistance (Pre-diabetes):**

- High Triglyceride levels in the blood
- High blood pressure
- Inability to lose weight when on a low fat diet
- Chronic fatigue,
- Mental fogginess
- Cravings for sugar-filled foods, binge eating
- Depression, irritability and/or anxiety

**NATURAL AND ARTIFICIAL SWEETENER INFORMATION**

	Calories /gram	Glycemic Index	Comment	Sweetness relative to Sucrose	Source and Brand Names
<b>Natural Sweeteners</b>					
White Sugar (sucrose)	4.0	65	refined	1.0	cane or beet sugar
Brown Sugar (sucrose)	4.0	60	refined	1.0	cane or beet sugar
Unrefined Sugar (sucrose)	4.0	60	unrefined	1.0	cane or beet sugar Florida Crystals, Sucanat, etc
Maltodextrin (dextrose=glucose)	4.0	100	refined	0.3	Corn starch hydrolysis
Maple Syrup	4.0	54	unrefined	0.8	Maple trees
Sourgum	4.0	55	unrefined	0.8	grain source
Molasses	4.0	55	unrefined	0.8	cane or beet sugar
Honey	4.0	50	unrefined	2.0	nectar
Agave	3.0	25	unrefined	1.5	agave plant
Fructose crystals	4.0	20	refined	1.2	Corn
High Fructose Corn Syrup	4.0	73	refined	0.8	Corn (fructose and glucose)

Natural Non-calorie Sweeteners					
Stevia	0.0	0	after taste	250-300	steviol glycoside from the herb PureVia, Sun Crystals and Truvia
Monk fruit/Luo han guo	0.0	0		150-300	Lo Han fruit Nectresse

Artificial Non-calorie Sweeteners					
Acesulfame-K (not heat stable)	0.0	0	(bitter)	200.0	organic acid and potassium Ace-K, Sunett and Sweet One
Aspartame	4.0	0		160-220	aspartic acid and phenylalanine Equal and NutraSweet
Neotame	0.0	0		7,000-13,000	aspartic acid and phenylalanine and Methanol (wood alcohol):
Saccharin (not heat stable)	0.0	0	(bitter)	200-700	benzoic sulfimine Necta Sweet, Sugar Twin, Sweet 'N Low
Sucratose	0.0	0		600.0	sucrose and chlorine Splenda
Cyclamates	0.0	0		60.0	banned in the US - causes bladder cancer

Sugar Alcohols			Laxative effect		
Arabitol	0.2	1	Med	14.0	isolated from gum arabic
Erythritol	0.2	1	High	15.0	yeast fermented glucose
Glycerol	4.3	5	Med	0.6	from triglycerides in soap making
Isomalt	2.0	2	Med	1.0	hydrogenated beet sugar
Lactitol	2.0	3	Low-Med	0.8	hydrogenated lactose
Maltitol	2.1	3	Med-High	1.7	hydrogenated starch (corn)
Mannitol	1.6	2	Low	1.2	hydrogenated fructose
Sorbitol	2.6	4	Med	0.9	reduction of glucose
Xylitol	2.4	12	Med-High	1.6	hardwoods and corncobs