



Sugar's Glycemic Index:

Debunking the Myths

There is no reason to avoid sugar because of concerns about high glycemic foods.

What are glycemic index & glycemic load?

The body must convert the starches and sugars in foods into blood glucose to meet basic energy needs. The glycemic index (GI) is a measure of how fast the body breaks down starches and sugars into blood glucose after a food or beverage is consumed. The glycemic load is determined by multiplying a food's glycemic index by the amount of carbohydrate it contains.

Sugar is not a high glycemic food.

Sugar has a moderate glycemic index, similar to those of wheat bread. The popular belief that sugar should be avoided because it has a high glycemic index is wrong. As the table shows, sugar is not a high glycemic food. Rather, at a GI of 58, sugar is only 3 points above the low GI range of 55 or below and also has a low glycemic load. The premise that sugar causes a rapid rise in blood glucose or glycemic response which then triggers an abnormal production of insulin followed by an atypical drop in blood glucose is not a physiological or scientific reality. Sugar does not uniquely raise blood glucose levels.

Debunking the GI diet

The theory behind the GI diet fails to recognize that foods are not eaten in isolation. Glycemic response depends on both the amount and type of carbohydrates eaten and how much fat or protein is eaten with the carbohydrates. In fact, food manufacturers can lower the GI of a food by adding fat to it. Both the U.S. Institute of Medicine and the Dietary Guidelines for Americans reject the concept of glycemic index as a useful measure of diet quality or for use as a weight loss tool.

The 2010 Dietary Guidelines Advisory Committee concluded, "Strong and consistent evidence shows that glycemic index and/or glycemic load are not associated with body weight and do not lead to greater weight loss or better weight maintenance. Abundant, strong epidemiological evidence demonstrates that there is no association between glycemic index or load and cancer. A moderate body of inconsistent evidence supports a relationship between high glycemic

index and T2D. Strong, convincing evidence shows little association between glycemic load and T2D. Due to limited evidence, no conclusion can be drawn to assess the relationship between either glycemic index or load and cardiovascular disease. When selecting carbohydrate foods, there is no need for concern with their glycemic index or glycemic load. What is important to heed is their calories, caloric density, and fiber content."

Creating a Healthy Diet

Eating fruits, vegetables, whole grains and fiber rich foods is important dietary advice and remember that sugar makes many of these healthy foods palatable. It is important to look at the entire nutrient profile of a food and of your entire diet. Eating less and increasing your activity level is the only proven way to lose weight and maintain long-term weight loss. **There are no low-fat, low-carb or low GI short cuts.**

Comparison of glycemic index and glycemic load of certain foods

Food	Glycemic index	Glycemic load
Apple	40	6
Baked potato	85	26
Brown rice	50	16
Carrots	92	5
Corn flakes	92	24
Orange juice	50	13
Plain bagel	72	25
Potato chips	54	11
Wheat bread	53	11
Table sugar (sucrose)	58	6

Ranges for glycemic index (GI) and glycemic load (GL)

	GI	GL
High	70 or more	20 or more
Medium	56 to 69	11 to 19
Low	55 or less	10 or less

K F Powell et al, International table of glycemic index and glycemic load values: 2002, *Am J Clin Nutr* 2002; 76:5-56.