

*Not all Carbs are created equal:*

# An intro to the Glycemic Index

**By Dr. James Proodian**

These days, it seems that dieting has become a confusing venture. Low carb. High carb. Low fat. High fat. High protein. Which way is a dieter to turn?

As if things weren't challenging enough, we now have this concept of "good carbs" vs. "bad carbs" in what is called the Glycemic Index. Although the Glycemic Index was first introduced over 20 years ago, many are still largely unfamiliar with this guide to carbohydrate foods. So, let's take a look at the Glycemic Index, what it is, and what it means to your health.

The Glycemic Index is a number, usually somewhere between 0-140, assigned to a particular carbohydrate-containing food that reflects how quickly that food will raise your blood sugar. Just about every food imaginable has been measured for its Glycemic Index, with some foods falling in the "Low Glycemic" category while others are considered "High Glycemic".

A low glycemic food will have only a small impact on your blood sugar, whereas a high glycemic food will cause a rapid blood sugar rise. For example, a serving of kidney beans, with a glycemic index of only 42, will cause a very mild elevation of

blood sugar. On the other hand, a bowl of instant mashed potatoes clocks in at 118, creating a sharp and swift jump in blood sugar.

For those of you who may be a little rusty in the science department, here's a quick summary of how our body handles blood sugar. Let's say you gobble down a Twinkie and a Coke. As they are digested in your stomach and intestinal tract, the sugar they contain is absorbed into your bloodstream, at which point we call it 'blood sugar' or 'blood glucose'. Since our blood sugar levels are very tightly regulated, we cannot have large swings up or down. That's where insulin comes in. As the Twinkie sugar is rushing through your bloodstream, insulin is released from the pancreas and escorts the sugar out of the blood and into the cells. Or at least that's what's supposed to happen.

Diabetics have a breakdown in the insulin system. Type I diabetics don't produce enough insulin, while Type II diabetics have cells that won't respond to insulin. There is also a condition called "insulin resistance", which is sort of a pre-diabetic state, where insulin has to be released in greater and greater amounts in order to be effective. As a result, we end up with too much insulin

in our bloodstream, which is also problematic.

So, how does all of this affect your health? There has been a considerable volume of research indicating that a diet loaded with high-glycemic foods increases the risk for diabetes, cardiovascular disease, cancer and perhaps Alzheimer's disease. At the very least, too many high-glycemic foods contributes to weight gain. A recent study published in the journal *Pediatrics* demonstrated that overweight adolescents felt fuller longer if they ate more low-glycemic foods, suggesting that such a diet may aid in weight loss efforts.

Unfortunately, the old notion of simply categorizing a carbohydrate food as either a "simple" or "complex" carbohydrate can be misleading. The reason is that, when scientists actually tested individual foods for their glycemic index score, there were some surprises. Some foods that had always been considered "complex" carbohydrates turned out to have a strong effect on blood sugar and behaved more like high-glycemic foods. So, it pays to have at least some idea of where your favorite carbs fall on the index.

For you low-carb dieters, you will still need to keep track of

your carbohydrate grams. But dieters, along with the rest of us, would do well to eat more low-glycemic foods and reduce our consumption of high-glycemic ones. There are many books and websites that contain at least a partial listing of the glycemic index for the most common foods. See Table 1 for a head start.

The Glycemic Index gives us a way to measure the blood sugar effects of the carbohydrates we eat and allows us to better categorize "good" and "bad" carbs in our diet. While the glycemic index is not the only factor in determining the health benefits of a particular food, for the most part low glycemic foods are healthier, and incorporating more of them in your diet can help guard against disease and weight gain.

Perhaps someday we will see the Glycemic Index on food labels, but until then you'll have to do a little homework.

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