

## **Good Carbs, Bad Carbs or No Carbs? An Insider's View of the Glycemic Index**

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Who isn't talking about carbs these days? Whether trying to avoid them or deciding *which* ones to eat, we are definitely hyper-focused on our carbohydrate consumption in an unprecedented way. With reported cases of obesity and diabetes soaring, many people are scrutinizing their diets to understand if their food choices are the root of the problem or a real part of the solution.

Carbohydrates are fundamental to this ongoing debate. The high-protein, low-carb advocates encourage a severe restriction of carbohydrates, especially starches, to restrain glucose and insulin surges in the blood. The Food Guide Pyramid, on the other hand, identifies carbohydrates as the mainstay of a balanced diet. Prominent health groups, like the American Heart Association and the American Cancer Institute, promote daily inclusion of whole grains, fruits, vegetables and low fat dairy products, all of which contain carbohydrates. So, which is it? Are carbs good for us or are they bad for us? Are there "good" carbs and "bad" carbs?

The science behind the glycemic index (GI) can help provide the answer. As a nutrition consultant in private practice, I have taught the glycemic index for more than a decade. I would like to give an insider's view of what it is and how effectively it helps with glycemic management.

Initiated in 1981, the glycemic index evolved from research designed to find the best foods for glycemic control. Conventional wisdom at the time suggested that simple carbohydrates (sugars) caused a spike in blood glucose levels but complex carbohydrates (starches) did not. This was not, however, what the researchers observed. Their data showed, for example, that refined white bread, a starch, had a greater influence on blood glucose elevations than ice cream, despite its sugar content! As they continued to test foods, they created a "glycemic index," which is a ranking system (0 – 100) of carbohydrate foods based on their impact on blood glucose levels after consumption. The higher the GI value, the more rapid spike in blood glucose levels, while a low GI value means glucose is released more slowly into the blood, creating a more modest, sustained elevation. This initial research spurred further testing and today more than 600 carbohydrates are listed in the glycemic index.

Why only carbohydrates? Since they are the body's fuel of choice, 100% of their calories are converted into glucose. Therefore, carbohydrates have the greatest

effect on blood glucose levels after eating and, thus, impact the most on glycemic control.

Current nutrition recommendations from the American Diabetes Association (ADA) encourage diabetes patients to focus on the *total amount* of carbohydrate eaten rather than the *source or type*. This is in direct contrast to the firmly documented, longstanding, worldwide glycemic index research, which affirms that the *type* of carbohydrate consumed *does affect* blood sugar levels. Quickly digested carbs (let's call them "gushers") produce a higher and faster glucose elevation than slowly digested carbs (we'll call these "tricklers"). This is why orange juice (GI of 57) is a better antidote to a hypoglycemic episode than milk (GI of 27). The controversy extends beyond just isolated carbohydrates and into the GI efficacy in an entire meal with protein and fat. At least twelve separate studies have demonstrated that the glycemic response to mixed meals can also be projected with acceptable accuracy.

As an "in the trenches" dietitian, I closely watch how quickly and easily my patients learn to recognize and incorporate low GI carbs into their meal planning. And, because low GI carbs like old fashioned oats, whole grain breads, etc. are also touted for other health benefits (for example, heart health, anti-cancer properties, weight loss), they realize they are improving their general health as they gain better glycemic control through their diet. Once they start seeing the results of low GI eating (my patients test 4 x day, before and after meals), the numbers speak for themselves and they become committed to their low GI choices. Many patients succeed in reducing, even eliminating, diabetes medications, including insulin for some. They improve their cardiac profiles by lowering blood fats and blood pressure. And low GI eating is unbeatable for gradual, permanent weight loss – one patient lost 180 pounds in two years of low GI eating! Does the glycemic index work? Yes – and sometimes dramatically!

A way to expose more people to the virtues of low GI carbohydrates may come from teaching about glycemic load. Since both the ADA and GI research point to the importance of total carbs *absorbed*, this may be the common ground. ADA explains that by controlling total carbs consumed, the amount of glucose dumping into the bloodstream afterwards (the "glycemic load") will also be controlled. GI research ascertains that, because low GI carbs are slowly released into the bloodstream, the glycemic load is equally controlled. Additionally, since low GI carbs are highly satisfying, they naturally limit the amount consumed. Herein converges the experts' current understanding of carbohydrate metabolism and glycemic control.

What is the best way to begin reducing glycemic load? Choose 45-65% of total daily calories from low or intermediate GI carbs. This is not to say that high GI foods cannot be eaten. A good rule of thumb is: the higher the GI, the smaller the portion to control the resulting glycemic load. In fact, this is exactly

why low GI carbs ultimately prevail: *patients can eat larger quantities without a glycemic overload!*

Distribute the remaining daily calories as in a normal balanced diet. A Registered Dietitian can provide meal planning guidance if needed. A series of books called *The Glucose Revolution* gives in-depth information about the glycemic index research, application and food lists. The following websites also provide valuable information: [www.glycemicindex.com](http://www.glycemicindex.com); [www.mendosa.com](http://www.mendosa.com); [www.Fifty50.com](http://www.Fifty50.com).

### **A Partial Listing of the Glycemic Index**

#### **Low 0 - 55**

Low-fat yogurt with artificial sweetener  
14  
Peanut butter  
14  
Kidney beans  
23  
Spaghetti, boiled 15 minutes  
44  
Baked beans, canned  
48  
100% stoneground whole wheat bread  
53

#### **Intermediate 56 - 69**

Raisins  
56  
Cheese pizza  
60  
Hamburger bun  
61  
Instant oatmeal  
66  
Angel food cake  
67  
Pancakes  
67

#### **High 70 or more**

Bagel  
72  
Cheerios  
74  
Rice cakes  
78  
Pretzels  
83  
Baked potato, Russet  
85  
Corn Flakes  
92