

The slow track to a healthy diet

Tracking digestion rates essential to proper eating

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Over the past while, the weight conscious have become very carb savvy. Rather than forsaking carbs, they are now seeking choices with better nutritional profiles. Among the factors often assessed is the rate of digestion of various carb-rich selections and the speed at which they are incorporated into the bloodstream.

Instead of quickly digested products such as refined breads and sugary drinks, slowly digested ones like multi-grain breads or fresh fruit are the preferred picks. But opting for slowly digested carbohydrate foods is not just for those concerned with waist management alone. A decreased risk of a number of diseases including heart disease, certain cancers and diabetes is linked to smart carb eating.

Using a measure called the glycemic index (GI) can help to sort through the carb maze. This tool, first developed by U of T professor Dr. David Jenkins in 1981, is now being given worldwide recognition. It's a calculation that compares the rate of digestion of an assortment of foods to either that of white bread or the sugar glucose, both speedily digested carbs which rate a high GI reading of 100. A selection of what's considered to be a lower GI food is one that rings in under 50 or 70 depending on whether bread or glucose is the test measure.

But banishing a food that may have a high GI, as some nutrition regimes recommend, is unnecessary dietary deprivation and a needless undertaking when opting for healthy food choices. Using only the GI as the criteria for selecting a food would leave nutritious vegetables and fruits such as cooked carrots, parsnips and melons out in the cold. While it's true that quickly digested carbs can lead to a rapid rise in blood sugar together with a spike in insulin (the hormone responsible for regulating blood sugar readings), in many cases, these foods are not eaten on their own. When they're consumed as part of a meal, as they most often are, there's more to the blood sugar-insulin equation than the GI value of a single food. This is where portions come into play.

It's the amounts of low and high GI foods that appear to have the biggest impact on disease risk. Scientists are now evaluating the effects of various amounts of low and high GI foods over time and have termed it the glycemic load. This measure takes into consideration both the GI of a food and how much is eaten. So if you're eating carrots or melon, which contain very little carbohydrate, the amounts eaten would likely contribute very little to the glycemic load. But consuming too many or large portions of high GI foods leads to a high glycemic load.

A focus on lightening your load may be very smart indeed, especially in this day of gargantuan portions. Harvard researchers, in a study of more than 80,000 nurses published in the New England Journal of Medicine, found that eating patterns with a high glycemic load are over time associated with a greater likelihood of developing type-2 diabetes. Moreover, a lighter glycemic load not only decreases the risk of the disease, it also helps to control blood sugar readings in those with diabetes.

Over an eight-year investigation of more than 90,000 subjects, the same Harvard research group linked a higher risk of breast cancer to high glycemic loads in overweight women. Other cancers such as that of the colon have also been associated with high glycemic loads.

Some studies, though, have shown contradictory results. One of the reasons is that the effects of a high glycemic load may be altered by factors such as exercise and hormonal status. But while the verdict on various cancers and glycemic load is not final, there's other compelling research pointing to the potential adverse effects of consuming a diet laden with quickly digested carbs.

In the battle against cardiovascular disease, a high glycemic load may carry a heavy burden. Various independent risk factors may each be affected by carb choices. For example, scientists have linked elevated levels of C-reactive protein (CRP) to dietary patterns with a high glycemic load. CRP readings, a measure of inflammation in the body, are now thought to be linked to artery damage and the development of heart disease and stroke.

In a study in the Canadian Journal of Cardiology, scientists from Queen's University evaluated the effects of a low glycemic load diet on cardiac rehabilitation patients compared to those following a higher glycemic load. At six months into the study, the subjects on the low glycemic load diet had lost more weight, particularly in the abdominal area -- the location on the body which carries the greatest threat to health. They also had a greater improvement in the blood levels of beneficial HDL-cholesterol and triglycerides, an apparent artery-clogging fat. Blood sugar readings were also better controlled. After a year on the program, the low glycemic group continued to show similar differences over the high glycemic subjects.

But the advantages for heart health can also be reaped by younger individuals. Scientists at the Medical College of Wisconsin, in a group of participants aged 11 to 25 years, also found that low HDL-cholesterol readings and a high glycemic diet went hand in hand. As artery disease is one that takes years to develop, pinpointing risks factors such as low HDL in younger people is a call for action.

For all ages, opting for low GI selections by including carbohydrate-containing choices like fruits, vegetables, whole grains, legumes and nuts provides more sustained energy, aids in waist management efforts and reduces the risk of a host of diseases. In fact, because of the mounting scientific evidence favouring low GI diets, the food industry in Australia is now putting GI levels -- low, medium and high -- on food packaging. There are no plans to do so here in Canada. So to incorporate the concept into your food style, instead of a painstaking and tedious counting of GI values of foods, keep some basics in mind:

- Go for fewer processed foods. For example, large flake or rolled oats have a much lower GI than do the finely chopped instant oats. The same goes for long grain versus instant rice.
- Opt for intact grains such as breads where some of the grains are still visible. Include products such as cracked wheat (bulgur), barley and quinoa.
- When selecting products like pasta and rice, be sure not to overcook them. While pasta that has been cooked to an al dente (meaning chewy) state is much more palate pleasing and has a low GI, overcooking boosts the GI counts.
- Rather than eliminating high GI foods, a smarter and more practical approach is to include low glycemic index choices through the day, especially when high GI foods are being included. For example, when having mashed potatoes, have a smaller portion and add some chick peas to a salad. But as with any calorie-containing food, keep portions in check.

GLYCEMIC INDEX

A GI UNDER 50 IS CONSIDERED TO BE LOW.

One minute oats: 65; Rolled oats: 49; Cornflakes: 81; All-Bran: 50; Barley: 22;
Spaghetti: 35; Bagel: 72; Coarse Pumpernickel bread: 41; Doughnut: 76; Apple:
38; Grapefruit: 25; Pear: 41; Chick Peas: 33; Lentils, green: 22

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