

The Glycemic Index

by Carol Sullivan

Most people have heard of the glycemic index, but not everyone knows how to apply it to their eating habits for the greatest benefit. Briefly, the glycemic index is a way of labeling carbohydrates by how rapidly they are converted to glucose. When large amounts of glucose are absorbed into the blood, the rise in blood sugar triggers a rise in insulin. For diabetics, those who do not make and/or utilize insulin well, this means a blood sugar level remaining high enough to damage the blood vessels. This blood vessel damage, in time, is the cause of heart attacks, strokes, blindness, and loss of circulation and nerve supply to the extremities. For non-diabetics, the rise in insulin causes the sugar to be dealt with promptly – any not needed for immediate energy needs being converted to fats such as cholesterol and triglycerides. If these rapid glucose-producing foods are the major part of the intake, the blood sugar rapidly falls as the glucose is converted to other compounds, resulting in hunger and lack of energy. This leads to eating more and exercising less as well as to elevated cholesterol and triglyceride levels.

The idea of a low glycemic diet is to choose carbohydrates that release glucose more slowly. This slow release is then better used for energy needs and stops sharp peaks and valleys of blood glucose levels. While there are elaborate glycemic index tables available, some common sense information may prove more practical for most of us. Sugar has a high glycemic index. Also, white bread, potatoes, and rice are generally high glycemic index foods. This does not mean they are bad for you – they merely should not be a major portion of a meal. If you eat a lot of one of these foods, you might want to substitute what you can, but also explore the actual glycemic index of each food, because there are some surprises. Pasta usually has a relatively low glycemic index because it is made with semolina, a hard wheat flour. The short grain white rices have a high glycemic index, but long grain Basmati has a pretty low one. The long grain Thai Jasmine rice has the highest!

Another related concept is glycemic load. This refers to the rate of glucose release from the entire meal. Proteins are metabolized slowly into glucose and fats more slowly yet. So an ideal glycemic load is reached by combining a small amount of a high glycemic index carbohydrate with larger amounts of low glycemic index carbohydrates, some protein and a small amount of fat. Such a meal will provide a slow, prolonged release of glucose – providing energy and reducing hunger over several hours, while reducing sugar and insulin spikes.

Fiber also plays a role because fiber slows down the breakdown of foods to glucose. As an example, orange juice with pulp has a slightly lower glycemic index than OJ without pulp, but a higher one than a whole orange. Enter bran and whole grains into the picture, as well as whole fruits and vegetables. Adding a dollop of oat bran to stews, chili, and other dishes lowers their glycemic index.

For ways to provide more information about a healthy diet to your parish, contact Carol Sullivan, the health ministry liaison for the Diocese of Easton at 410-827-6907 or by email songofjoy@dmv.com.

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