

THE GLYCEMIC INDEX

There's more to whole grains, fruits and vegetables than dietary fiber, antioxidants and protective phytonutrients. Health benefits from these foods are also attributed to the rate at which these carbohydrate foods are digested and absorbed into the bloodstream.

Whole grains are digested and absorbed into our bloodstream more slowly than refined grains. When carbohydrates are digested, they are converted to glucose in the blood. The rise in the blood sugar level in your blood signals your pancreas to release insulin into the bloodstream. Insulin moves the glucose from the bloodstream into your cells, where it's needed for energy or stored as glycogen in the muscles and liver, the rest being stored in your fat cells. Slower rises in blood sugar levels produce more consistent energy levels. High insulin levels may contribute to the development of heart disease, diabetes and cancer.

The rate at which foods cause blood sugars to rise are assigned a value. This measure is referred to as the **glycemic index (GI)**. The GI ranks foods from 0 to 100. The number indicates whether the food raises your blood sugar levels rapidly or slowly. Foods digested quickly cause your blood sugar to rise quickly and have a high GI value; foods digested slowly lead to a gradual rise in blood sugar levels, and are rated a low GI value. All foods are compared with pure glucose, which GI's value is 100.

Diets with lower GI foods are healthier for you. Diets with lower GI scores reduce triglyceride levels and raise HDL cholesterol and produce lower levels of inflammatory blood proteins, compounds linked to heart disease.

Effects of high glycemic carbohydrates on your insulin levels may also increase the risk of colon cancer as insulin may trigger the rapid growth of colon cells.