# Glycemic Index and Glycemic Load

## How the Glycemic Index of Food is Measured

To determine the glycemic index of a food, volunteers are typically given a test food that provides 50 grams of carbohydrate. On a different day, they get a control food, either white bread or pure glucose, that provides the same amount of carbohydrate. Blood glucose measurements are taken prior to eating and at regular intervals after eating over the next several hours.

The changes in blood glucose over time are plotted as a curve. The glycemic index is calculated as the area under the glucose curve after the test food is eaten, divided by the corresponding area after the control food is eaten. The value is multiplied by 100 to represent a percentage of the control food.

For example, a baked potato has a glycemic index of 76 relative to glucose and 108 relative to white bread, which means that the blood glucose response to the baked potato is 76% of the blood glucose response to the same amount of carbohydrate in pure glucose and 108% of the blood glucose response to the same amount of carbohydrate in white bread.

## About Glycemic Load

The glycemic index compares the potential of foods containing the same amount of carbohydrate to raise blood glucose. However, the amount of carbohydrate consumed also affects blood glucose levels and insulin responses. The glycemic load of a food is calculated by multiplying the glycemic index by the amount of carbohydrate in grams provided by a food and dividing the total by 100.