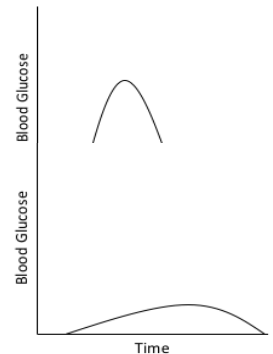


# The Glycemic Index

## What is the Glycemic Index?

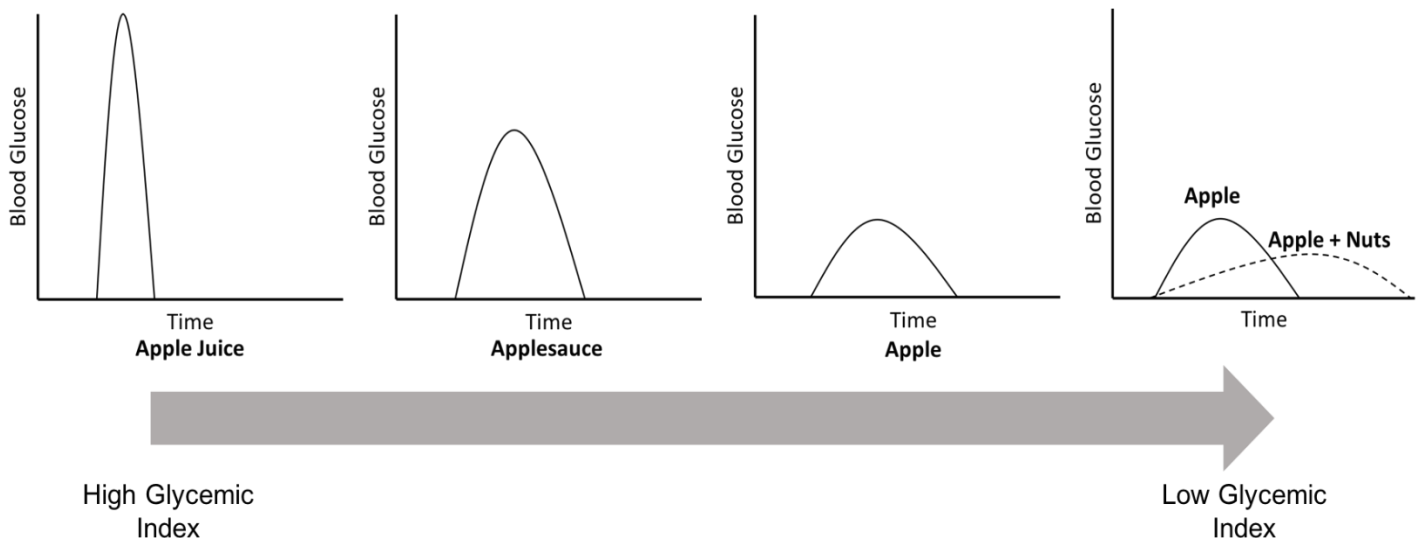
- The **Glycemic Index (GI)** is a scale from 1-100 that ranks carbohydrate-containing foods by how much they raise blood glucose levels when compared to a standard food, such as glucose or white bread.
- **High Glycemic Index** foods, such as white bread and sugar have a score of 100 and raise blood sugar levels higher and faster. These foods may lead to sudden spikes in blood sugar levels.
- **Low Glycemic Index** foods, such as whole grain products, lead to smaller and slower rises in blood sugar levels compared to high glycemic index foods.



## What Affects the Glycemic Index of Food?

There are many things that may increase or decrease the glycemic index of a food, such as:

- **Cooking method** – In some cases, cooking foods for a long time can increase the GI of the food. For example, overcooked pasta has a higher GI than pasta cooked “al dente”.
- **Fat and acid in food** – Acidic foods, such as sourdough bread, and/or foods with fat, such as full-fat cheese or milk slow down digestion, which lowers the GI of these foods.
- **Processing** – The more we process food, the higher the GI. For example, an apple has a low GI, applesauce has a slightly higher GI, and apple juice has the highest GI.
- **Protein and Fibre** – Similar to fat and acid, protein and fibre in food lower the GI by slowing down digestion. For example, adding nuts which have protein to an apple which has fibre lowers the GI when they are eaten together, compared to an apple alone.



## Benefits of Low Glycemic Index Foods

People with diabetes or at risk for diabetes may find eating low GI foods to be helpful in improving their health. Eating foods with a lower GI may help you to:

- **Control your blood sugar levels** – Low GI foods are digested slower and release sugar into the blood slowly, which can help control your blood sugar levels after a meal.
- **Lower your cholesterol levels** – Low GI foods are often higher in fibre, which can help reduce cholesterol levels in the blood, lowering your risk of heart disease.
- **Appetite Control** – The extra fibre in low GI foods helps us feel full longer, which can help us lose or maintain weight.

## Adding Low Glycemic Index Foods to Your Diet

The GI is only used for foods which have carbohydrates in them, including fruits, starchy vegetables (i.e., corn, potatoes), milk, yogurt, grain products, and legumes (beans, peas, lentils). To increase the number of low GI foods in your diet, you can:

- 1) **Substitute high GI foods with lower GI options** – For example, switching from white bread to whole grain bread, a baked potato for sweet potatoes, or fruit juice to the whole fruit are all great options to lower the GI of your meal or snack.
- 2) **Balance your meal with protein and healthy fats** – Adding proteins such as meats and alternatives (i.e., fish, legumes, nuts) and healthy fats help to lower the GI of your meal and provide you with more balanced nutrition!
- 3) **Choose high-fibre foods** – Vegetables, most fruits, and whole grain products are high in fibre and have a low GI. Adding fibre to your diet can help you control your blood sugars and appetite, and lowers your risk of heart disease.

## Examples of the Glycemic index of Foods

Low GI Choose Most Often	Medium GI Choose More Often	High GI Choose Less Often
Pumpernickel	Whole wheat bread	White Bread
All Bran Cereal	Oatmeal/Quick oats	Corn Flakes, Rice Krispies, Cheerios
Barley	Brown rice	White rice or Instant rice
Sweet potatoes	New potato	Baked potato
Legumes (beans, peas, lentils)	Popcorn	Pretzels
Apples, pears, plums	Black bean or green pea soup	Bananas, mangoes