

# GLYCEMIC INDEX

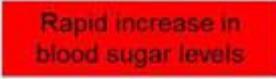
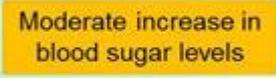
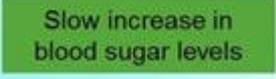
Definitions, How it Benefits You and Facts of AceNuwara Red Basmathi Rice Glycemic Index

## What is Glycemic Index

Our body breaks down most carbohydrates from the foods we eat and converts them to a type of simple sugar called glucose. Glucose is the main source of fuel for our body. After eating, the time taken by our body to convert carbohydrates and release glucose into the bloodstream varies, depending on the type of carbohydrate and the food that contains it. Some carbohydrate-containing foods cause the blood glucose level to rise rapidly; others have a more gradual effect.

The Glycemic Index (GI) ranks carbohydrate containing foods from 0-100 based on their effect on blood sugar (glucose) levels. Foods that raise blood sugar (glucose) more rapidly are called as HIGH GI foods and foods that raise the blood glucose levels gradually are called as LOW GI foods.

## Glycemic Index Classification

GI	GI rating	Effect
	$\geq 70$	
	56 - 69	
	0 - 55	

Glycemic Index classification

## How is Glycemic Index Determined?

Glycemic Index values of foods are determined scientifically by feeding 10 or more healthy human subjects a fixed portion of the food after an overnight fast and subsequently drawing blood samples and measuring blood glucose response at specific intervals over a period of 2 hours. On another occasion, the same 10 or more people consume an equal-carbohydrate portion of glucose sugar (the reference food) and their two-hour blood glucose response is also measured. Then the GI value is calculated by using a formula. To determine the GI value of one food, 10 or more human subjects have to undergo the two hour blood glucose response testing on four different days.

*Note: For glycemic index values to be declared on food labels, the GI should be determined in an accredited GI testing laboratory. Singapore's Accredited Glycemic Index Research Unit is located at School of Applied Science, Temasek Polytechnic. For details about GI testing visit: <http://www.tp.edu.sg/schools/asc/about-asc/Centres-of-Excellence/Glycemic-Index-Research-Unit-%28GIRU%29>*

## Benefits of Low GI diet

Consumption of low GI foods has been shown to:

- Increase the feeling of fullness or satiety. This helps to control food intake which will indirectly prevent getting obese.
- Improve blood glucose control and thus reduces the risk of getting diabetes.
- Improve blood glucose management in diabetics, which leads to better control and reduces the diabetic complications.
- Improve blood lipid profile, thus reducing the risk of heart diseases
- Enhance sports performance and endurance

For more information visit: <http://www.tp.edu.sg/schools/asc/about-asc/Centres-of-Excellence/Benefits-Of-Low-Glycemic-Index-Foods>

## Comparison of GI of AceNuwara Red Basmati Rice to other rice VARIETIES (white, brown & red rice) and commonly eaten foods:

### 70 and GREATER

- Jasmine Rice
- Glutinous Rice
- Short Grain Rice
- Yellow Noodles
- Mashed Potato
- Processed Cereals  
(corn, wheat flakes, popcorn)
- White Bread
- Watermelon
- Tapioca

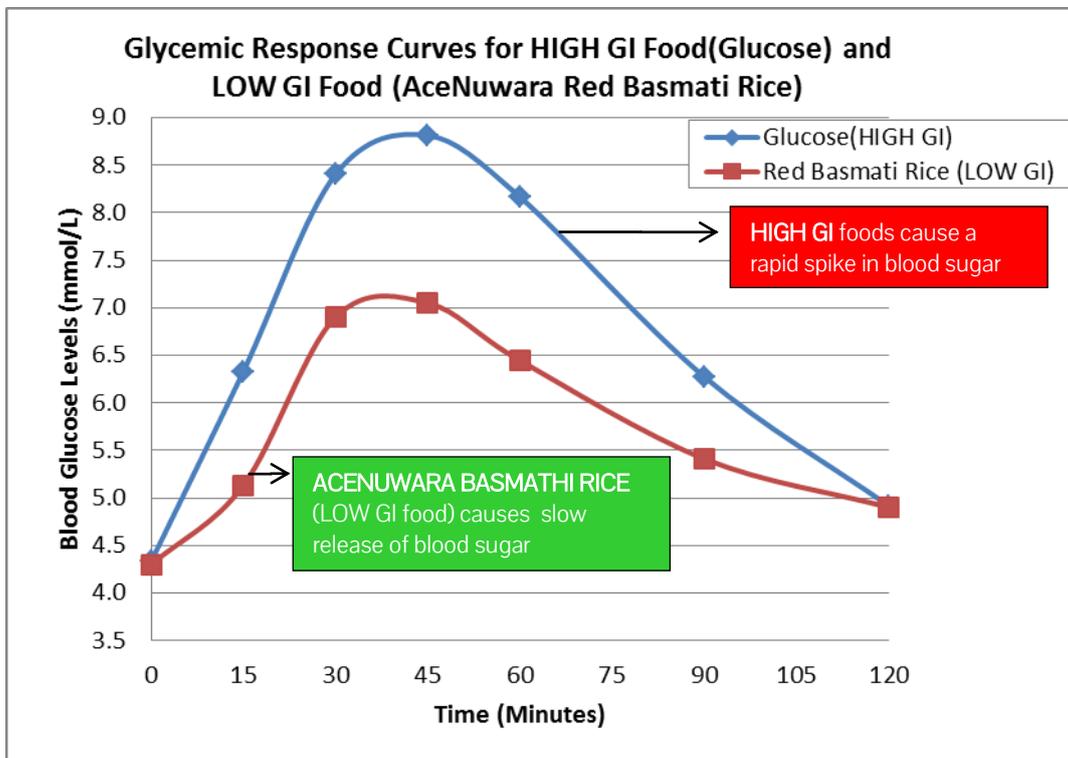
### 56 to 69

- Basmati Rice  
(most types)
- Brown Rice  
(long grain)
- Laksa Noodles
- White Pita Bread
- Chapatti
- Pineapple
- Mango
- Most Pastries
- Pizza

### 0 to 55

- Red Basmati Rice  
(ACENUWARA)
- Basmati Rice  
(parboiled)
- Bee Hoon
- Tung Hoon
- Pasta  
(cooked al dante)
- Multigrain Bread
- Sourdough Bread
- Most Vegetables & Fruits
- Milk & Milk Products  
(unsweetened)
- Most Beans & Legumes

## Glycemic Response Curves for GLUCOSE (HIGH GI FOOD) and ACENUWARA RED BASMATHI RICE (LOW GI FOOD)



### What is Glycemic Load (GL)?

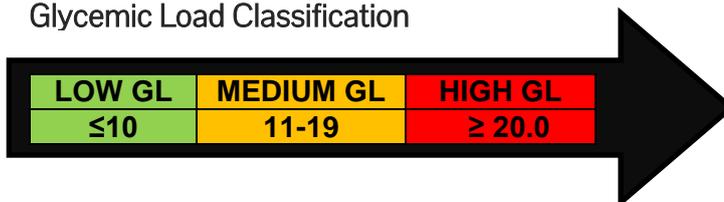
The GL provides a more practical way of evaluating the effect of carbohydrate containing foods on blood sugar by combining both quantity (serving size) *and* quality (GI) of carbohydrates into one number.

Glycemic Index = Carbohydrate quality (Effect of carbohydrate containing foods on blood blood sugar levels)

Glycemic Load = GI (effect on blood glucose, i.e., Carbohydrate Quality) + Amount of carbohydrates present in the food consumed, i.e., Quantity.

For instance, a food can have a high GI, but if it contains very little carbohydrate, the effect of a serving on blood glucose is low and the GL will be low.

#### Glycemic Load Classification





## Why do we need to go for LOW or MEDIUM GL foods?

Consumption of a high-glycemic load meal, leads to a rapid increase of blood glucose and insulin levels. In the long run, high blood glucose levels and excessive insulin secretion are thought to contribute to the loss of the insulin-secreting function of the pancreatic beta-cells that might lead to diabetes. High dietary glycemic load have been associated with an increased risk of developing type 2 diabetes mellitus (DM) in several large prospective studies. So it is advisable to follow a meal plan that includes foods with low GL.

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