



Glycaemic Index



Health



Wellness



Nutrition



Support

Introduction

Different foods that contain carbohydrates are broken down in our body at different speeds. All carbohydrate foods, regardless of the source are broken down and digested into glucose. The type of food, how it is cooked and what else you eat with it will affect how fast this process occurs.

The glycaemic index (GI) is a measurement of how fast the sugar that is in the food gets into your bloodstream. Foods are classified as either High, Medium or Low. Understanding GI can help to manage blood glucose levels for anyone with diabetes. It also helps to prevent diabetes and managing a healthy weight.

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Glycaemic Index (GI)

Any food that contains carbohydrate can be classified as having a high, medium or low Glycaemic Index (GI) rating. The higher a food is on this scale, the faster the glucose from that food is released into our blood stream.

High GI foods

Carbohydrate foods that are broken down quickly by your body and cause a rapid increase in blood glucose have a high GI rating. Once our level of blood glucose has risen, our body works to reduce it rapidly, and this can lead to blood glucose levels going too low, resulting in regular feelings of hunger and tiredness.

This, in turn, can make you feel like you need a 'pick me up' treat or snack. If we then reach for another high GI snack, this process repeats itself. Continuing to eat this way is a common way of developing type 2 diabetes.

Low and medium GI foods

These are carbohydrate foods that are broken down more slowly by your body and cause a gradual rise in blood sugar levels.

This means our energy levels stay more stable and our bodies can manage our blood glucose levels effectively without spikes and dips. You will find your attention, energy levels and mood are more stable when choosing lower GI foods and you will generally be less hungry.

Using GI to make healthier choices

Every food that contains carbohydrates has a GI rating. This GI rating can change based on the way a food has been made, cooked or any processed, making it extremely difficult to monitor and measure all the foods you eat.

Glycaemic Index does not mean different foods are 'healthy' or 'unhealthy'. In fact, you will find different natural and highly processed foods can be classified as high, medium and low on GI depending on other ingredients they contain or the amount of processing they have had. Even the same food can be classified differently depending on how it has been processed. (For example, a whole apple has a lower GI than apple juice.)

The practicalities of using GI every day are quite difficult. However, a general rule to follow is that the more processed or refined a food is, the higher its score on the Glycaemic Index chart (for example: brown or wholemeal bread, rice and pasta has a lower GI than white versions).

Processed sugary foods and drinks are not always high GI. Crisps and chocolate are lower GI than potatoes and fruit, for example, but their high fat, sugar and salt levels make these less healthy choices. So, if you only focused on the glycaemic index of foods, you could end up with a diet that is high in saturated fat and calories and miss some beneficial nutrients.

What affects the Glycaemic Index of food?

When a food is eaten on its own, its GI rating is quite simple to determine. However, there are different things that will affect the GI of a food...

Other nutrients: Carbohydrate foods can also contain protein, fat and fibre that will lower the GI.

How the food is cooked: How you cook a food will affect its GI. Generally, the longer a food is cooked for, the more its GI will increase. For example, starchy foods such as potatoes, rice and pasta have been found to have an increased GI immediately after cooking, and this increases further the longer they are cooked for.

Other foods eaten at the same time: Foods you put on your plate with carbohydrates will affect GI. Pairing carbohydrates with high protein and fibre foods will slow down the breakdown of glucose. For example, a baked potato with tuna and cheese (which contain protein and fat) will have a lower GI as a meal than the potato eaten on its own.

Processing: Fruit juice has a higher GI than a whole fruit (so, for example, apple juice has a higher GI than a raw apple). Foods that have undergone more processing (e.g. ready meals, cakes, sweets and chocolate) will have higher GI.

Glycaemic load

Alongside the Glycaemic Index, an important factor to consider when choosing food is 'glycaemic load'. For example: you may eat a food that has a high GI, but if you only eat a small portion of this food then the 'load' may be lower for the body to digest and react to.

Another example is when you eat carbohydrate foods paired with foods that contain fat and protein. If you had two slices of white bread (high GI) but ate these with a portion of baked beans (low GI), the glycaemic load of the meal is smaller and the meal will take longer for your body to digest.

Portion size and meal pairings are therefore important in determining whether our food choices will have a significant impact on our blood glucose levels.

Blood glucose levels and Diabetes

Anyone who is diagnosed as diabetic or pre-diabetic will be recommended to follow a lower GI diet.

When we eat carbohydrates, a healthy functioning body releases a hormone called insulin into the bloodstream. Its role is to take the blood glucose to any area of the body it is needed, either for use as energy or to be stored. If you have diabetes, your body's ability to release and use insulin for this task is reduced and your blood glucose levels need to be carefully monitored.

Leading an active lifestyle and following a lower GI diet often prove successful in managing and reducing diabetes. Some people are also offered medication to help manage their blood glucose levels.

Research suggests that it's the amount of carbohydrates that you eat, rather than the GI of a food, that has the biggest influence on your blood glucose level after a meal.

However, it's advised that people with diabetes and/or raised blood glucose levels eat sensible portion sizes of carbohydrates and include low GI foods in their everyday diet rather than avoiding them completely. This advice also applies more generally to those without any diagnosis, to maintain good health and prevent disease.

Final thought

Although Glycaemic Index (GI) can give us a useful guide and help us reduce our intake of fast releasing sugars, always consider the type of food you're eating and how much it has been processed to ensure you are eating 'real' food with nutrients that fuel your body.

More specific information and support for diabetes is available online at:
www.diabetesmyway.nhs.uk/get-local/wrightington-wigan-and-leigh

If you want to understand the specific GI of certain foods, you can search for foods by visiting: <https://glycemicindex.com/gi-search>

If you would like to learn more or require more information and support, please get in touch!

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