Glycaemic Index

Glycaemic index is abbreviated to 'GI', a scientific rating of how quickly carbohydrate foods release sugar into our bloodstream and provide our bodies with energy.

Carbohydrates provide our most readily-available source of energy — glucose. Even carbohydrates that may appear to be 'sugar-free' are ultimately broken down in the intestine to glucose.

The speed at which glucose is absorbed into the bloodstream, and the degree to which it raises blood sugar levels, is measured as GI. It's a numerical scale from 0–100 with glucose having the highest rating of 100.

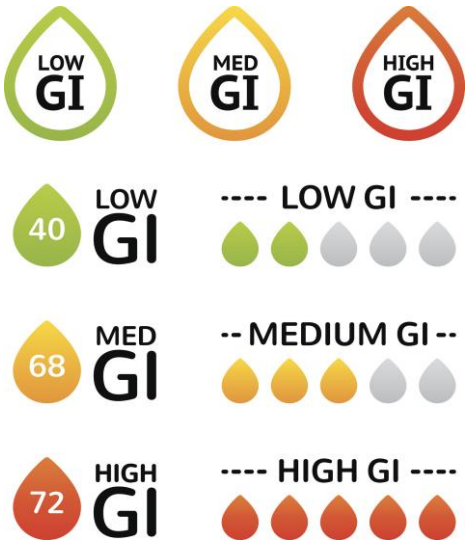
The problem with high GI

The higher GI a food contains, the more likely it is to cause an over-secretion of insulin.

In the short term, this disrupts blood sugar levels, making you feel hungry, grumpy and irritable. What is more, elevated levels of insulin are the number one predictor of heart disease. High insulin levels go hand in hand with high levels of blood fats and low levels of the 'good' HDL cholesterol. Insulin also plays a major role in the development of diabetes. When blood sugar rollercoasters daily, there is a much higher chance of developing diabetes in later life.

GI ratings

Carbohydrates with a GI over 70 are a high GI food and best avoided. Foods with a rating under 50–55 are considered low GI.



Managing a low GI diet

- Source most of your carbohydrates from starchy vegetables, these are naturally low GI due to their fibre content.
- Avoid sugar which is the most readily available form of glucose for the body.
- Limit grains (except white rice post training) as all grain products, even whole grain foods, are moderate to high GI. Consume with adequate protein to buffer against the rise in insulin.
- Limit fruit to two servings a day.
- Limit dried fruit intake to occasional inclusion in recipes and post exercise as the drying process concentrates the sugars and removes the water content.
- Limit stimulant / caffeine intake as this will exacerbate insulin spikes and energy dips leading to sugar cravings.

Supporting exercise with GI foods

Generally speaking, blood sugar levels want to be kept as even as possible. This limits excessive insulin secretion and the related health effects.

However, the one time you do need a blood sugar influx and insulin spike is in the 30–minute window after a training session. This can be achieved by including high GI foods such as high glucose / dried fruit, white rice and white potatoes in your post-workout meals.

The rise in glucose helps to replenish the depleted muscle glycogen stores quickly and efficiently, while the insulin spurt stimulates protein synthesis, ensuring optimum muscle repair and recovery. It is important to allow your body to repair and build muscle after exercise. Muscle tissue is more metabolically active at rest than other body tissue. This keeps your metabolism working efficiently and maintains a healthy body weight.

Glycaemic index of common foods

Low glycaemic:	Moderate glycaemic:	High glycaemic:
Apple juice Cherries Oranges Plums Apples Pears Dried apricots Grapefruit Stewed fruit (no sugar)	Kiwi Mango Peaches Pineapple	Watermelon Banana Grapes Melon Dried fruit
Chocolate (70% cocoa solids)*	Honey Other chocolates	Sugar
Tomato or vegetable juice	Fruit squash (diluted)	Alcohol Fizzy drinks
Rye bread Brown rice Wholemeal pasta Barley Whole oats Cereals Oatcakes	White basmati rice Buckwheat Pastry White pasta Potato crisps Sugar-free muesli Wholemeal bread Rye crackers Popcorn (fresh, no sugar)	White rice Biscuits Rice cakes Cornflakes Wheat White bread French bread Corn chips
Baked beans Broad beans Chickpeas Butter beans Lentils	Kidney beans	
Sweet potato (cooked)	Sweetcorn Carrots (raw)	Parsnips Carrots
Nuts and seeds Potato	Peas Boiled potatoes (skin on)	Baked Chips Cooked beetroot
Milk (skimmed / whole) Yoghurt (plain)	Ice cream*	

***Not an excuse to eat regularly!**