



A Dozen Tips for Better Blood Sugar Control: Glycemic Index and Glycemic Load

Human bodies depend on a steady supply of glucose (blood sugar) as their principal fuel, in order for muscles to stretch and contract, nerves to fire, brains to function—and so much more. Glucose comes from carbohydrates, so the quality and quantity of carbohydrates we eat hugely impacts our energy levels and overall health.

Too little glucose, and we starve many bodily functions (especially the brain, which uses 11–20% of the glucose we produce). Too much, and our body scrambles to produce enough insulin to process all that blood sugar—and we may develop heart disease, eye, kidney, and nerve damage. Ideally, our food delivers a steady stream of just the right amount of glucose.

But how do we distinguish foods, meals, and diets that raise our blood sugar too high and too fast from those that dole out their fuel slowly and steadily to support good health? Understanding glycemic index, glycemic load and glycemic response can help.



Glycemic Index (GI) ranks the quality of individual carbohydrate-rich foods on a scale of 1–100 by measuring how glucose levels rise after someone eats an amount of that food containing 50 grams of carbohydrate. Foods with a low GI score (under 55) provide steady fuel to support energy levels and overall health, while those with a high GI score (70 and up) are likely to provide an unhealthy quick rush of blood sugar followed by a sharp crash.

Glycemic Load (GL) combines quality and quantity, allowing us to rank how the typical serving size of a food affects blood sugar. A GL of 0–10 is considered low (slow, steady conversion to blood sugar; healthier), while a high GL is 20 and up (flash and crash—tough on health and energy levels). Research shows why GI and GL both matter: a low glycemic load can be achieved either by eating small amounts of high GI carbs, or large amounts of low-GI carbs, and some studies show that the latter approach (i.e. low-GI, low-GL) is best of all for health.

While both GI and GL are useful measures of our glycemic response to certain foods or dishes, our body's overall Glycemic Response—our management of blood sugar over time—also appears to depend on our total diet and lifestyle.

As useful as GI, GL, and GR can be, it's important to keep in mind that understanding the effect of carbohydrates on blood sugar is just one part of choosing a healthy diet. The quality of fats and proteins matters too, as do fiber, vitamins, minerals and other factors. The bottom line? Eating a wide variety of delicious, whole, minimally-processed foods, guided by the latest science in all these areas, is the way to go. Check out our tips on the following page.



Tips for Better Blood Sugar Control

Here are a dozen ideas anyone can use to easily bring the science of glycemic index, glycemic load and glycemic response to their everyday meals and snacks.

1. **In general, whole and minimally-processed foods** are better choices than highly-processed foods, for keeping blood sugar steady.
2. **Choose traditional muesli, or hot oatmeal or porridge** (not instant) instead of processed flakes or puffs.
3. **Favor whole fruits over fruit juice**, and enjoy juice in small quantities or mixed with sparkling water.
4. **Skip the fluffy, light breads.** Traditional dense grainy bread has a much lower glycemic index.
5. **Pasta has a low glycemic index**, especially when it's cooked al dente. Enjoy pasta with plenty of vegetables and beans or fish for a healthy pasta meal.
6. **Enjoy balanced meals and snacks.** Eating healthy fats and lean protein with carbohydrates lowers the overall glycemic load of a meal or snack.
7. **Eat legumes.** Serve lentil soup, a bean-filled chili, or a chickpea salad. Add beans to soups, salads, pasta and other dishes—or try mashing white beans with your potatoes.
8. **Increase fiber.** Certain fibers, including resistant starch (found in foods including beans, bananas, cold pasta and potato salads), lower your body's glycemic response. A mostly-plant-based diet provides a good variety of different types of fiber.
9. **Eat a variety of intact whole grains**, and be sure not to overcook them. Intact grains such as barley, wheatberries and ryeberries have a low glycemic index, especially when they're cooked al dente.
10. **Add zest.** Acidic foods lower your glycemic response, so squeeze lemon juice on your broccoli, eat your breakfast cereal with yogurt, and add a salad with vinaigrette dressing to your dinner.
11. **Enjoy healthy snacks** such as carrots with hummus, apple slices with nut butter, or plain yogurt with fresh or frozen berries.
12. **Practice portion control.** Too much of even a healthy food is, well, too much. Serve yourself a modest portion, eat slowly and mindfully, and reflect before you reach for more.

The refreshing news is that reaping the benefits of a low-glycemic diet doesn't mean only looking at numbers. The principle of glycemic health is important, and traditional eating patterns such as the Mediterranean diet offer a good example of how to enjoy delicious food while safeguarding your good health.