



Mastering Diabetes & Prediabetes

LEARN TOP TIPS TO BALANCE
YOUR BLOOD SUGAR AND
PROMOTE INSULIN
SENSITIVITY.

BLOOD SUGAR BASICS

How it affects your body

Before we dive into *how* to manage your blood sugar, let's cover what it is, and why it's important...

Anytime you eat carbs, your body breaks them down into glucose (aka "blood sugar"), which acts as your body's main source of energy. But glucose needs help to get into your cells.

Enter the hormone insulin. Insulin acts like a key, unlocking your cells to allow glucose in. When your blood glucose rises, your pancreas gets the signal to secrete more insulin.

But if your blood sugar stays too high for too long, sometimes your pancreas stops responding to insulin. This is known as insulin resistance, and it can lead to prediabetes -- and if left unmanaged, type 2 diabetes.

What is Diabetes?

Diabetes is an illness marked by high blood glucose levels. There are two forms of diabetes:

- **Type 1 diabetes:** A genetic autoimmune disease where the immune system attacks the pancreatic cells, making them unable to produce insulin.
- **Type 2 diabetes:** A condition where the pancreas stops responding to insulin the way it should. Type 2 diabetes is often linked with obesity.

Keeping your blood sugar stable is key to preventing type 2 diabetes and supporting your overall health. Normal fasting blood sugar is meant to stay within the range of **70 to 100 mg/dL**. If your fasting blood sugar is between 100 and 125 mg/dL, it's a sign of prediabetes.

When your blood sugar gets too high (hyperglycemia), or too low (hypoglycemia), your body will send you some signs.

Signs of high blood sugar:

- Feeling thirsty
- Frequent urination
- Fatigue
- Dry skin
- Dry mouth (especially corners of mouth)
- Vision problems

Signs of low blood sugar:

- Dizziness
- Irritability
- Anxiety
- Confusion
- Shaking
- Feeling hungry
- Headaches



BLOOD SUGAR REGULATION

Why it matters

If you DON'T have diabetes, there's a good chance you don't give your blood sugar much thought. But you *should*. *More than 1 in 3 American adults have pre-diabetes, most of which do not even know they have it.*

Around 90% of non-diabetics have glucose spikes of 180 - 200 mg/dL, without even knowing it. **Glucose spikes over 160 mg/dL are considered high blood sugar or hyperglycemia.** And here's why that's a problem...

Why Glucose Spikes are Bad News

Once glucose lands in the bloodstream, it's taken up by your mitochondria -- the "energy powerhouses" of your cells. **Glucose overload can stress your mitochondria, causing free radicals to form.** Free radicals cause inflammation, and oxidative stress, and harm your DNA.

Glucose spikes can even make you age faster. Glucose excess leads to glycation, which degrades proteins like collagen and elastin (the ones that keep your skin supple and flexible). This can lead to premature aging.

Blood sugar spikes can also cause excess glucose to get stored in your liver, muscles, and fat cells. Meaning, **blood sugar spikes can lead you to gain body fat.**

Signs of Blood Sugar Imbalance

- Fatigue
- Brain fog
- Hunger
- Carb cravings
- Anxiety
- Headaches
- Trouble concentrating
- 11 am or 3pm energy crashes
- Difficulty losing weight
- Dizziness or shakiness
- Numbness or tingling
- Recurring infections
- Feeling thirsty
- Having to pee a lot





BLOOD SUGAR REGULATION

How to improve it

- 1 – **Watch your carbs.** Carbohydrates are broken down into sugar (glucose). This in turn, raises your blood sugar. The more carbs you eat, the bigger the blood sugar spike -- and the more insulin you'll need. Simple and refined carbohydrates raise blood sugar fast, and these spikes increase insulin resistance. See the next page for some examples of these types of foods.
- 2 – **Move your body.** Exercise helps your muscles burn glucose, which improves insulin sensitivity. Muscle also stores glucose (this is a good thing). Strength training designed to build muscle improves insulin sensitivity. Aim to get at least 150 minutes of exercise each week.
- 3 – **Eat more natural fiber.** Fiber slows down the breakdown of carbohydrates, which improves blood sugar balance. Eat plenty of naturally high fiber foods like vegetables, low glycemic fruits, and legumes.
- 4 – **Opt for low GI foods.** The glycemic index rates foods based on how quickly they raise peoples blood sugar on average. To keep your blood sugar controlled, eat mostly low to moderate GI foods, and limit high GI foods. It also important to balance your plate. Be sure your meal includes protein rich foods and healthy fats. Eat these foods before carbs.
- 5 – **Keep a lid on stress.** Your stress hormone cortisol causes your body to release stored glucose, which raises your blood sugar. To keep stress at bay, set aside time for relaxation activities like breathwork, meditation, mindfulness, and yoga.
- 6 – **Use portion control.** Eating bigger portions causes bigger spikes in glucose. Stick to reasonable portions and eat slowly so you can tell when you're full.
- 7 – **Get plenty of sleep.** Poor sleep disrupts glucose metabolism and increases the risk of diabetes. Try to get between 7-8 hours of quality sleep every night.
- 8 – **Stay hydrated.** Water helps your kidneys flush out excess sugar in your urine. Aim to drink 64 ounces of water each day.
- 9 – **Eat more cinnamon & apple cider vinegar (ACV).** These foods are both said to have blood sugar lowing effects. 1 tbsp ACV in water before a meal can be helpful to blunt sugar spikes.
- 10 – **Monitor your blood sugar.** Consider using a portable glucose monitor (glucometer) to see how your body responds to different foods since we are all unique and you may be surprised which foods cause the largest spikes for you.

THE GLYCEMIC INDEX

Breaking it down

The glycemic index (GI) ranks food on a scale of 1 to 100 based on how quickly they raise your blood sugar.

- **Low GI foods (55 & under)** produce slow rises in blood sugar & insulin.
- **Medium GI foods (56-69)** are the middle ground.
- **High GI foods (70 & above)** are rapidly absorbed and cause blood sugar spikes.

Swapping out high GI foods for low GI foods helps balance your blood sugar and can even help with weight loss.

Fiber lowers the GI index for foods. So you'll notice many high fiber foods on the low GI list.

Low GI Foods (55 and under)

Avocados - 10	Lettuce - 15	Tomatoes - 30	Broccoli - 45
Mushrooms - 10-15	Spinach - 15	Almond milk - 30	Asparagus - 45
Greek yogurt - 11	Artichokes - 20	Green beans - 32	Grapes - 46
Peanuts - 14	Cherries - 20	Apples - 38	Butternut squash - 51
Cucumbers - 15	Cashews - 25	Pears - 38	Sweet corn - 52
Zucchini - 15	Raspberries - 25	Oranges - 40	Blueberries - 53
Cabbage - 15	Blackberries - 25	Plums - 40	Quinoa - 53
Sweet peppers - 15	Grapefruit - 25	Strawberries - 41	Kiwi - 53
Brussels sprouts - 15	Kidney beans - 28	Chickpeas - 42	Bananas - 54
Cauliflower - 15	Lentils - 29	Peaches - 42	Brown rice - 55
Olives - 15	Black beans - 30	Dates - 42	

Medium GI Foods (56-69)

Popcorn - 55-65	Beets - 65	Raisins - 66
Oatmeal - 58	Pumpkin 65	Pineapple - 66
Sweet potato - 64	Couscous - 65	

High GI Foods (70 and up)

Wheat bread - 70	Crackers - 74	Corn flakes - 83
White rice - 72	French fries - 75	Rice milk - 86
Soda - 72	White potatoes - 82	Baguette - 95
Watermelon - 72	Pretzels - 83	White bread - 100



CREATING A BALANCED PLATE

For blood sugar balance

A balanced plate that keeps your blood sugar steady has the right mix of protein, healthy fats, carbs... and an abundance of fiber.

As mentioned, fiber slows digestion and helps reduce blood sugar.

So when choosing carbs, pick ones with a healthy dose of fiber like low glycemic fruits and vegetables, whole grains, and legumes.



The Plate Method

This simple, visual tool ensures you're creating a balanced plate. Start off with a plate (not too big, not too small), about 9 inches across.

- **Fill half the plate with non-starchy vegetables** like leafy greens, cauliflower, asparagus, broccoli, etc. (check the low GI list on the previous page).
- **Fill one quarter of the plate with lean protein** like fish, chicken, turkey, eggs, legumes, tofu, tempeh, or lean cuts of beef or pork.
- **Fill one quarter with carbohydrate foods** like sweet potato, quinoa, brown rice, corn, or fruit if needed.
- **Include some healthy fats** like olive oil, avocado, nuts, seeds, or oily fish with each meal.

That's it! Here are a few examples to paint a picture:

Breakfast

Scrambled eggs 1/4
Avo on whole grain toast 1/4
Sautéed onions & spinach 1/2

Lunch

Baked chicken 1/4
Sweet potato 1/4
Leafy green salad w/olive oil
vinaigrette 1/2

Dinner

Grilled salmon 1/4
Brown rice 1/4
Broccoli 1/2

