

What You Need to Know About Your Glucose

At TotalWellness, we believe that everyone is healthy. That's right, everyone has existing healthy habits, whether getting eight hours of sleep, hanging out with friends or walking their dog.

We want you to figure out what healthy means to you and how you can build upon your healthy habits. So we created this series of I Am Healthy Guides to help you do just that. Because healthy is happy. It's more than just exercising and eating right. Healthy feels awesome.

Repeat After Us: I am healthy.

I AM

Two of the most powerful words; for what you put after them shapes your reality.

Glucose 101

Think of your cells as doors with keyholes. To let blood glucose (or sugar) into your cells, you need to have insulin – the “keys” to opening the door so that glucose can move from the blood into the cell and provide energy. If you have problems with blood sugar, your body could be making faulty “keys” (poor insulin production) or not enough of them. To determine whether or not you have diabetes or blood sugar problems, you need to get your glucose levels tested.

Why does glucose matter?

Glucose, commonly called sugar, is the main source of energy used by the body. You get it from the food you eat and from your cells where it is stored. Normally, blood glucose levels rise a certain amount after you eat. Insulin is a hormone that helps your body keep blood glucose levels steady and move glucose from the blood after eating into cells for use. The key is that you do not want your blood glucose to get too high. Even in healthy people, high blood sugar after meals can, over time, damage the body, *even if it never causes diabetes.*

How does glucose affect my body?

When glucose can't be managed by the appropriate levels of insulin, it can lead to diabetes and other health issues. Over time, having too much glucose in your blood can cause serious problems. It can damage your eyes, kidneys, and nerves. Diabetes can also cause heart disease, stroke and even the need to remove a limb.

What do my glucose numbers mean?

Depending on whether or not you had a fasting lipoprotein profile, these are generally considered to be the normal ranges for glucose results:

Category	Fasting Blood Glucose after at least 8 hours	Random Non-Fasting Glucose
Normal	99 and below	139 and below
Prediabetes	100-125	140-199
Diabetes	126 and above on more than one occasion	200 and above

What affects my glucose levels?

Your blood sugar levels are determined by a variety of factors, some of which you can control:

- Diet — Foods that contain carbohydrates will affect glucose levels the most, but your entire diet can affect blood sugar.
- Weight — Excess fat interferes with your body's ability to effectively use insulin, which can lead to high blood sugar levels.
- Physical activity — Physical activity can affect insulin sensitivity for up to 48 hours - which can lead to lower blood sugars over this time.
- Stress — When you're stressed (physically or mentally), your blood sugar levels rise.
- Hereditary factors — If one of your parents has diabetes, your chances of getting it immediately become significantly higher.
- Medication — If you take insulin or other medications, the effectiveness can depend on the location, timing and size of the dose.

How can I treat high blood sugar?

If you have high blood sugar, always discuss treatment options with your physician first to determine the best course of action. Here are a few ways you can lower your glucose levels:

- Exercise: Physical activity is one of the best and easiest ways to lower your blood sugar.
- Get rid of excess weight: If you're overweight or obese, slimming down can help significantly lower your glucose levels.
- A meal plan: Learn how certain foods affect your blood sugar and you're your diet around that information. Some meal planning tools include the plate method, carb counting, and glycemic index.
- Medication: People with type 1 diabetes must use insulin. Some people with type 2 diabetes may need to take oral medications (pills) and/or insulin to help you meet your target levels.
- Blood glucose testing: Check your blood sugar levels throughout the day; there are plenty of portable tools available to monitor your health. Keep a daily log of your results.

While there's no substitute for a balanced diabetic diet, adding certain foods may help those with diabetes keep sugar levels in check:

- Oatmeal
- Broccoli
- Spinach
- Green beans
- Strawberries
- Salmon (and lean meats)
- Sparkling water
- Cinnamon

What are the types of diabetes?

Type 1 diabetes used to be called juvenile-onset diabetes. It is usually caused by an auto-immune reaction where the body's defense system attacks the cells that produce insulin. The reason this occurs is not fully understood. People with type 1 diabetes produce very little or no insulin. The disease may affect people of any age, but usually develops in children or young adults. People with this form of diabetes need injections of insulin every day in order to control the levels of glucose in their blood.

Type 2 diabetes used to be called non-insulin dependent diabetes or adult-onset diabetes, and accounts for at least 90% of all cases of diabetes. It is characterized by insulin resistance and relative insulin deficiency, either or both of which may be present at the time diabetes is diagnosed. The diagnosis of type 2 diabetes can occur at any age. Type 2 diabetes may remain undetected for many years. It is often, but not always, associated with obesity, which itself can cause insulin resistance and lead to high blood glucose levels. People with type 2 diabetes can often initially manage their condition through exercise and diet. However, over time most people will require oral drugs and or insulin.

Gestational diabetes (GDM) is a form of diabetes consisting of high blood glucose levels during pregnancy. It develops in one in 25 pregnancies worldwide and is associated with complications to both mother and baby.

Other specific types of diabetes also exist.

What else do I need to know about glucose?

It's no longer just certain people who need to worry about their blood sugar; it's pretty much everyone. It should concern you even if you're thin and healthy, and especially if you don't get much exercise or you carry extra weight around your middle.

According to the American Diabetes Association, *79 million people in the U.S. have prediabetes*. People with prediabetes are five to six times more likely to develop diabetes over time. Prediabetes also increases the risk for cardiovascular disease.

The most important thing you can do is be aware of your glucose levels. The National Diabetes Education Program estimates that 7 million Americans are living with diabetes and don't know it. Talk with your physician and attend health screenings when they're offered.

If you are concerned about your blood glucose levels, we always suggest following up with your primary care physician to see if further testing or treatment is necessary.

Questions about your glucose numbers?

Email us at news@totalwellnesshealth.com