

How Hypoglycemia and Hyperglycemia Can Hurt Your Health

The impact low blood sugar and high blood sugar can have when you have diabetes.

By [Vanessa Caceres](#), Contributor | May 4, 2017, at 10:00 a.m.



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Having diabetes is all about maintaining a healthy blood sugar level. So, you may think it's a good thing if your blood sugar dips. However, low blood sugar can be just as worrisome as high blood sugar.

"There's a happy range of blood sugar that our body likes, and having it too high or too low affects us," says Cindy Cooke, a family nurse practitioner in Huntsville, Alabama, and president of the American Association of Nurse Practitioners.

Hypoglycemia, another term for low blood sugar, is when your blood sugar dips below 70 milligrams per deciliter, according to the American Diabetes Association. (If you have diabetes, you likely already use a blood glucose meter to regularly check your blood sugar.)

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Just what causes hypoglycemia? One common cause is skipping meals. "In our office, we call it feeling hangry," says Lory Gonzalez, a nurse educator at the Diabetes Research Institute Foundation at the University of Miami Miller School of Medicine. Hangry cleverly combines the words hungry and angry, a feeling you've probably experienced when you haven't eaten in a while.

Anyone, not just those with diabetes, can feel the effects of hypoglycemia. However, if you have diabetes, other causes of low blood sugar include increased physical activity or taking too much of your diabetes medication. For instance, you may experience hypoglycemia if

your recommended medication dosage is too strong and it lowers your blood sugar, or you may take too much insulin and skip a meal, leading to hypoglycemia.

How can you prevent low blood sugar and hypoglycemia? Don't skip meals and keep a high-sugar snack nearby (see examples below). "This will keep you from going south," Gonzalez says.

If you think you're experiencing hypoglycemia, check your blood sugar. If it's below 70, you need to consume 15 grams of fast-acting sugar. This can include four ounces of juice or six ounces of regular soda (not diet). Many people traditionally think of orange juice to help hypoglycemia, but any type of fruit juice will work, Gonzalez says. You can also consume glucose tablets that are available over the counter. Each tablet typically has 4 grams of carbohydrates, so you'll want to take four tablets.

Another approach to treat low blood sugar is the 30/30 rule, recommended by Dr. Joshua Miller, an endocrinologist and medical director of diabetes care for Stony Brook Medicine in Stony Brook, New York. With this, you consume 30 grams of fast-acting sugar, and then check your blood sugar every 30 minutes to make sure it's rising.

Make sure to check your blood sugar regularly until it returns to a normal range. You want to keep a close watch on it to make sure you're not shooting it too high, Miller cautions.

If your next meal is one to two hours away, have a snack that combines protein, fat and carbohydrates, like cheese and crackers, peanut butter and crackers or nuts and yogurt. Steer away from a carb-heavy snack, which may not be effective enough in lowering your blood sugar, Cooke says. It's important to keep snacks and quick sugar sources handy at all times. Stash extras around your house, at work or in your car.

Although a one-time hypoglycemia experience may be nothing to worry about, talk to your doctor if it happens often. "One thing I counsel patients is that diabetes is a moving target," Miller says. Even if you do the right things to treat your diabetes, your body may require changes in medication to avoid drastic blood sugar changes.

If you have diabetes, the effects of severe hypoglycemia can include seizures or fainting. In these situations, treatment may involve administering a shot of glucagon, a special hormone. Glucagon kits are available by prescription, and your health care provider can let you know if you need one. If you require a glucagon kit, the people around you most often should know how to give you an injection if you experience severe hypoglycemia, or they can call 911 for help.

Sometimes a person living with diabetes can unknowingly have persistent low blood sugar levels – a condition called hypoglycemia unawareness – and it can be dangerous. "Having low blood sugar can mimic being drunk when you're driving," Gonzalez says. She recommends always carrying identification that says you have diabetes so people know what might be happening. And make sure to check your blood sugar before you drive a car so you know that you're not driving with a dangerous blood sugar level.

Diabetes and Hyperglycemia

Hyperglycemia means you have high blood sugar, generally defined as above 200 mg/dl. Uncontrolled hyperglycemia sometimes has no symptoms. Other times, symptoms can include increased thirst, urination and hunger as well as fatigue. If hyperglycemia persistently occurs – meaning you have uncontrolled diabetes – you're prone to the typical complications associated with diabetes, including blindness, circulation problems and kidney failure, Gonzalez says.

If you are already diagnosed with diabetes, you know the risks associated with high blood sugar. If you think you've experienced hyperglycemia but don't yet have diabetes diagnosed, talk to your health care provider. "Diabetes is a lifelong disease process, but a lot of people tend to ignore it," Cooke says.

However, the symptoms of hypoglycemia and hyperglycemia can be similar, so it's always best to test your blood sugar to see what's going on.

If you experience several episodes of hyperglycemia within a short period, it could be that you've had too much of the wrong food or you've taken too little medication to help control your blood sugar. It could be a sign of not getting enough physical activity. Also, having a cold or infection can raise your blood sugar. In that case, your blood sugar should return to normal once you're feeling better. "I always warn my patients in this situation and tell them not to panic about their blood sugar," Cooke says.

If you experience hyperglycemia, try drinking water. You can also take a walk to help counteract the effects of foods that spike your blood sugar. However, if your blood sugar is above 240, check your urine for ketones, the American Diabetes Association recommends. You'll want to avoid physical activity if there are ketones in your urine because they could raise your blood sugar even higher. If you experience hyperglycemia more often than usual, you may want to work with a registered dietitian on your meal planning.