

What Is Hypoglycemia (Low Blood Sugar)?

Symptoms of hypoglycemia, or low blood sugar, occur when the sugar level in your blood drops below 70 mg/dL. This level may be higher or lower for each individual patient. The severity of the symptoms is caused by the combination of a low blood sugar value and the speed your glucose drops. Low blood sugar symptoms often happen suddenly. Your blood sugar can drop to severe levels and lead to seizures, coma, and even death if not promptly treated.

Symptoms of Low Blood Sugar

Different symptoms can occur in people with hypoglycemia. It is important to know your own body's signs and symptoms when your blood sugar is low. Symptoms of hypoglycemia include:

Mild hypoglycemia	Moderate hypoglycemia	Severe hypoglycemia
Shakiness	Confusion, difficulty in thinking	Seizure or convulsions
Hunger	Fatigue, sleepiness	Loss of consciousness, coma
Nausea	Blurred/impaired vision	Low body temperature
Sweating	Poor coordination	Needs someone else's help to treat
Feeling nervous or jittery	Anger, stubbornness, or sadness	
Irritability or impatience	Weakness, lack of energy	
Rapid/fast heartbeat	Headache	
Cold skin, excessive sweating not caused by exercise		

Checking your blood sugar level is the only accurate way to know if it is low!

What to Do When Low Blood Sugar Occurs

- 1. Be prepared! ALWAYS carry your glucometer and glucose tablets or food, just in case. And wear a diabetes ID bracelet. (For more information, go to: www.medicalert.org or call 1-800-607-3035).
- 2. If your blood sugar level falls below 70 mg/dL or you start to feel symptoms of low blood sugar, eat or drink 15 grams of carbohydrate. 15 grams of carbohydrate = 4 glucose tablets, 6 oz. regular soda, 4 oz. juice, 8 oz. milk

Options to treat low blood sugar:

- Glucose tablets (follow package directions)
- Juice or regular soda (4 oz or ½ cup)
- Sugar, honey, corn syrup (1 tablespoon)
- Raisins (2 tablespoons)

- Nonfat or 1% milk (8 oz)
- Hard candy
- Jellybeans
- Gumdrops

If you do not have any of these suggestions on hand, eat or drink anything that contains sugar or "simple" carbohydrates (15-20 grams). Simple carbohydrates, like bread, milk, or fruits, are easy to digest.

- **3.** Recheck your blood sugar after 15 minutes.
- 4. If you still have symptoms of low blood sugar, eat/drink another 15-20 grams of sugar or a simple carbohydrate.
- 5. When your blood sugar returns to normal, eat a small snack that contains proteins if your next planned meal or snack is more than 1 hour away. Proteins help stabilize blood sugar for a sustained period of time.

Ways to Reduce Your Risk of Low Blood Sugar

- **1.** Do not skip meals or snacks. Eat your meals on time.
- 2. Test your blood sugar often, especially before driving and when exercising. Learn to recognize your early symptoms of low blood sugar and know how to use your glucose meter to check if your blood sugar is low.
- 3. Do not drink alcohol without eating food.
- **4.** Be alert to the situations or activities when you are likely to have low blood sugar.
- 5. Take your medications on time. Do not stop taking medications that may cause low blood sugar. Do not wait too long to eat after taking insulin because that can cause low blood sugar.
- 6. Plan for exercise. A good time to exercise is after a snack or meal. If unplanned activity occurs, be aware that low blood sugar may occur and eat/drink a carbohydrate (15 grams) and protein snack to cover that activity.

Sources: American Diabetes Association. Hypoglycemia (low blood glucose). Updated September 16, 2014.

Anderson M, Powell J, Campbell KM, Taylor JR. Optimal management of type 2 diabetes in patients with increased risk of hypoglycemia. Diabetes Metab Syndr Obes. 2014;7:85-94.

This program was planned in accordance with AANP CE Standards and Policies and AANP Commercial Support Standard. This educational tool is a companion to Emerging Insulin Agents and the Pivotal Role of Nurse Practitioners and Physician Assistants in Improving Diabetes Outcomes.



