

HORMONES AND HYPOGLYCEMIA

WHAT YOU NEED TO KNOW

Diabetes is a disease in which blood glucose (sugar) levels are too high. It is most often treated with insulin – the hormone that helps move glucose from your bloodstream into your body's cells. If your insulin levels are too high, your blood glucose can drop. Hypoglycemia is a term for low blood glucose (sugar). Hypoglycemia has many causes, and is most often associated with taking insulin injections and other diabetes medications.

WHAT IS HYPOGLYCEMIA

Glucose comes from the food you eat, and is the fuel that your brain and body need to function properly. If your blood glucose level drops below normal (below 70 milligrams per deciliter or mg/dL), your cells do not have enough energy to function. You may experience a variety of symptoms, ranging from mild to severe:

Mild:

Below 70 mg/dL

- Hunger
- Nervousness and shakiness
- Sweating

Moderate:

Below 55 mg/dL

- Extreme fatigue
- Confusion
- Difficulty speaking
- Mood changes such as increased anger or irritability

Severe:

Below 35-40 mg/dL

- Seizure or confusion
- Loss of consciousness or coma

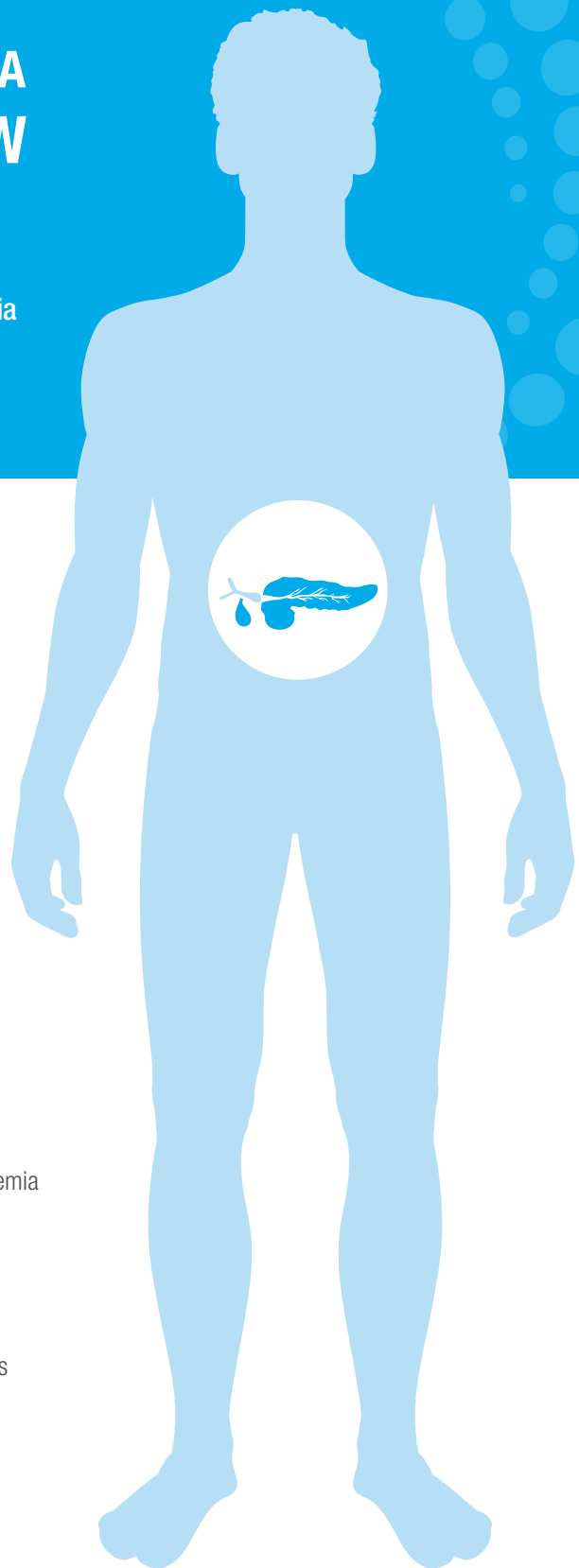
Severe hypoglycemia can be dangerous and should be treated promptly.

DID YOU KNOW?

Hypoglycemia occurs most often in people who are taking certain medications to treat diabetes. The most common diabetes medication associated with hypoglycemia is insulin. If you don't match your diabetes medications with your food or level of physical activity, you could develop hypoglycemia.

OTHER FACTORS

- If you don't eat enough carbohydrates after taking certain diabetes medications
- You skip or delay a meal after taking certain diabetes medications
- You increase your physical activity level beyond your normal routine
- You drink too much alcohol without enough food
- You get sick and are unable to eat or keep food down



Visit hormone.org for more information.

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TREATMENT

If you have diabetes and have symptoms of hypoglycemia, check your blood glucose level right away. If it's low, you should eat or drink one of the following to quickly raise your blood sugar:

- 2-3 Glucose tablets
- 2-3 pieces of hard candy (not sugar-free)
- 1 tablespoon of white sugar
- 1/2 cup of juice (not sugar-free)
- 6 ounces of regular (not diet) soda

Wait 15-20 minutes and retest your blood glucose level. If it is still low, take the same action again.

HYPOLYCEMIA FACTS

- 1.4 million Americans are diagnosed with diabetes every year
- Hypoglycemia leads to more than 100,000 emergency room visits each year
- Severe hypoglycemia has the potential to cause accidents, injuries, coma, and death

Source: American Diabetes Association

4 QUESTIONS TO ASK YOUR DOCTOR

- Can my diabetes medicines cause hypoglycemia?
- If I get hypoglycemia, what should I do to bring my blood glucose level back to normal?
- Do I need a supply of glucagon?
- What should I tell my friends and relatives about my hypoglycemia?

PREVENTION

Knowing your blood glucose level can help you decide how much medicine to take, what food to eat, and how physically active to be. Here are steps you can take to prevent hypoglycemia:

- **Monitor your glucose level.** When you feel any symptoms of hypoglycemia, check your blood glucose to confirm hypoglycemia and treat if necessary. Sometimes people with diabetes don't feel the symptoms of hypoglycemia. If you are unaware of hypoglycemia symptoms or you're hypoglycemic often, ask your health care provider about a continuous glucose monitor.
- **Eat regular meals and snacks.** Your meal plan is key to preventing hypoglycemia. Eat regular meals and snacks with the correct amount of carbohydrates to help keep your blood glucose level from going too low after you have taken your diabetes medications.
- **Approach physical activities safely.** Monitor your blood glucose level during the activity and for several hours afterward to help prevent hypoglycemia. If your blood glucose level is low before exercise, consider eating a low-carb snack prior to working out.
- **Take your diabetes medication as recommended.** Follow your doctor's advice and see him or her regularly for testing and monitoring of your condition.

BE PREPARED

- Close friends and relatives should be aware of your condition and be taught how to recognize severe hypoglycemia and how to treat it quickly with an injection of glucagon (a hormone that raises blood glucose levels)
- Train children and loved ones to call 911 in the case of emergencies
- If you live alone, consider purchasing a medical alert device
- If you suffer from hypoglycemia, make sure that your doctor prescribes you a glucagon pen in the case of emergencies
- If you have hypoglycemia unawareness (when you do not develop symptoms of hypoglycemia), talk to your doctor about a continuous glucose monitor



Patients have questions. We have answers.

The Hormone Health Network is your trusted source for endocrine patient education. To learn more about diabetes and its complications, visit dailydiabetes.org.



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