

## Hypoglycemia and Diabetes

### Causes of Hypoglycemia in Diabetes

In people with [diabetes](#), [hypoglycemia](#) (low blood sugar) develops when there is not enough sugar (glucose) in your body to be used as fuel for cells. A number of different factors can cause hypoglycemia, including certain [medications](#) and [diet](#). Certain medical conditions can also make hypoglycemia more common in people with diabetes.

### Symptoms of Hypoglycemia

Most people feel symptoms of hypoglycemia when their blood sugar is 70 mg/dL or lower.

Each person with diabetes may have different symptoms of hypoglycemia. You will learn to recognize yours.

Early symptoms of hypoglycemia may include:

- Confusion
- Dizziness
- Feeling shaky
- Hunger
- Headaches
- Irritability
- Pounding [heart](#); racing pulse
- Pale skin
- Sweating
- Trembling
- Weakness
- Anxiety

Without treatment, more severe hypoglycemia symptoms may develop, including:

- Headache
- Feeling irritable
- Poor coordination
- Poor concentration
- Numbness in mouth and tongue
- Passing out
- Nightmares or bad dreams
- Coma

### Diabetes Drugs Linked to Hypoglycemia

Certain types of [oral diabetes](#) drugs can cause low blood sugar. These include the sulfonylureas and meglitinides. Alpha-glucosidase inhibitors, biguanides, and thiazolidinediones alone should not cause hypoglycemia but can when used with other diabetes medicines.

The older oral diabetic medications tend to cause low sugar more frequently than newer drugs used to treat [type 2 diabetes](#). Examples of these first generation drugs include:

- [Orinase \(tolbutamide\)](#)
- [Tolinase \(tolazamide\)](#)
- [Diabinese \(chlorpropamide\)](#)

Other drugs that can cause low blood sugars include the use of alcohol, [aspirin](#), [Coumadin \(warfarin\)](#), [Zyloprim \(allopurinol\)](#), [Benemid](#), or [Probalan \(probenecid\)](#) with diabetic medications.

Hypoglycemia can also occur if you take too much [insulin](#) for the amount of carbohydrates consumed.

Ask your health care provider if your medication can cause hypoglycemia.

### **Diet and Hypoglycemia in Diabetes**

Hypoglycemia can occur in someone with diabetes following a meal that contains a lot of simple sugars. This condition is called reactive hypoglycemia. It may also develop if a person with diabetes misses a snack, doesn't eat the whole meal, eats later than usual, doesn't eat when ill, or drinks alcohol without eating any food. Therefore, it's particularly important for people with diabetes to not skip meals, particularly when they're taking diabetes medications. Intense [exercise](#) may also trigger a hypoglycemic reaction.

### **Hypoglycemia Treatment in Diabetes**

If you suspect you have hypoglycemia and have diabetes, check your blood sugar level.

If you have [blood sugar levels](#) that frequently drop after meals that have a high content of simple sugars, a way to diminish these episodes of reactive hypoglycemia is through a more balance diet. Avoid simple sugars and eat frequent small meals during the day.

If you experience low blood sugar when you haven't eaten (fasting hypoglycemia) have a snack before bedtime, such as a [protein](#) or a more complex carbohydrate.

Your doctor may determine that you are taking too much insulin that peaks toward the evening to morning hours. In that case, he or she may decrease your insulin dose or change the time when your last dose of insulin is given.

### **Hypoglycemia Treatment in Diabetes continued...**

Other things that you can do to help yourself get through the low blood sugar episode include:

- Take two or three glucose tablets (available at pharmacy).\*
- Take one tube of glucose gel (available at pharmacy).\*
- Chew four to six pieces of hard candy (not sugar-free).
- Drink 1/2 cup fruit juice.
- Drink 1 cup skim milk.
- Drink 1/2 cup soft drink (not sugar-free).
- Eat 1 tablespoon honey (placed under your [tongue](#) for rapid absorption into the bloodstream).
- Eat 1 tablespoon table sugar.
- Eat 1 tablespoon corn syrup.

**\*Note:** *If you think you have hypoglycemia and one of your diabetes medications is an alpha-glucosidase oral diabetes medicine, low blood glucose can only be treated with glucose tablets or gel.*

Fifteen minutes after you have eaten a sugar-containing food, check your blood sugar again. If you do not feel better and your blood sugar is still less than 70 mg/dL (milligrams per deciliter), eat another serving of one of the foods listed above.

Eat a carbohydrate and protein snack such as peanut butter crackers or cheese and crackers, or a half of a sandwich.

Keep a record of the date and time of day your reaction occurred and what you did.

Call your health care provider if you have more than one unexplained hypoglycemic reaction in a week.

Hypoglycemia may cause you to pass out. If so, you will need someone to give you a glucagon injection. Glucagon is a prescription medicine that raises blood sugar and may be needed with severe hypoglycemia. It is important that your family members and/or friends know how to give the injection in case you have a low blood sugar reaction. Talk with your health care provider about the use of glucagon.

If you witness a loved one suffering from a severe hypoglycemic reaction, call 911 or take them to the nearest hospital for treatment. Do not try to give an unconscious person food as they may choke.

**Note:** *It is very dangerous to drive during a low blood sugar reaction. If you are driving and you experience symptoms of hypoglycemia, safely pull off the road and eat a glucose-containing (sugary) food. Wait at least 15 minutes and repeat if necessary. Eat a protein and carbohydrate source (such as peanut butter crackers or cheese and crackers) before continuing to your destination. It is important to keep a sugar source, a protein and carbohydrate source in your car at all times for emergencies.*

### Hypoglycemia Prevention for Those With Diabetes

If you have diabetes, ways you can prevent hypoglycemia include:

- Follow your meal plan.
- Eat at least three evenly spaced meals each day with between-meal snacks as prescribed.
- Plan your meals no more than four to five hours apart.
- Exercise 1/2 to one hour after meals.
- Double-check your insulin and dose of diabetes medicine before taking it.
- Know when your medicine is at its peak level.
- Carry a sugar source with you at all times. It is important to keep a sugar and protein and carbohydrate source in your car for emergencies.
- Test your blood sugar as often as directed by your health care provider.
- Ensure a family member or friend knows how to administer a glucagon injection in severe cases of hypoglycemia when you may be unconscious.

Prolonged or frequent episodes of low blood sugar present a risk to your health. It is very important to recognize the warning signs of low blood sugar and treat it promptly.

Talk with your health care provider if you have more than one unexplained low blood sugar reaction in the same week.

Wear a medical identification tag (for example, MedicAlert) and/or carry an identification card that states that you have diabetes.

### WebMD Medical Reference

[View Article Sources](#) 

**SOURCES:** National Diabetes Information Clearinghouse (NDIC): "Hypoglycemia." American Diabetes Association: "Hypoglycemia." Zammitt, N. *Diabetes Care*, 2005; 28:2948. Boyle P. *South Med J.*, 2007 Feb;100(2):183-94.

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