

DIABETES AND HYPOGLYCEMIA (LOW BLOOD SUGAR)

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What is hypoglycemia?

Hypoglycemia means that an individual's blood sugar (glucose) level is too low. For many people with diabetes, a blood sugar level of 70 milligrams per deciliter (mg/dL) or less is the warning level for hypoglycemia. Talk to your health care provider to know what level of blood sugar is too low for you. Low blood sugar is dangerous and should be treated right away.

How do I know my blood sugar is too low?

Symptoms of low blood sugar are different among people. These symptoms can happen quickly and range from mild to severe, including:

- Headache
- Anxiety
- Feeling shaky
- Hunger
- Fast heartbeat
- Tingling or numbness of the lips, tongue or cheek
- Sweating
- Nightmares
- Confusion



If you think your blood sugar is too low, even if you don't feel any symptoms, check your blood sugar.

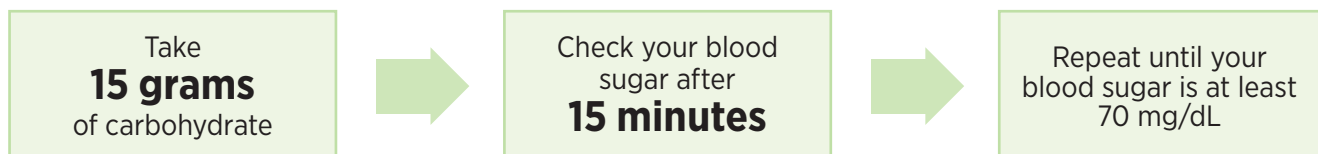
What should I do if my blood sugar is too low?

If your blood sugar is below your target value, treat it right away. If you feel that your blood sugar is too low, but you cannot check your blood sugar for any reason, take actions as if you have low blood sugar.

Hypoglycemia needs to be treated quickly.

Your brain needs sugar for its normal functions. Low blood sugar, if not treated quickly, may lead to serious complications, such as confusion, seizures, coma and, rarely, even death.

The American Diabetes Association recommends the "15-15 Rule" for treating hypoglycemia.



Examples of 15 grams of carbohydrate:

- Pure glucose such as glucose tablets or glucose gel (see instructions for amount).
- Carbohydrate-containing foods:
 - ½ cup of fruit juice (e.g., orange, apple or grape juice)
 - ½ cup of regular soda (not diet)
 - 1 tablespoon of sugar, honey or corn syrup

Notes:

- ☛ If you have kidney disease, do not use orange juice to treat hypoglycemia because orange juice has a lot of potassium.
- ☛ Foods that contain fat, such as chocolate, are not good choices to treat hypoglycemia. These foods may not raise blood sugar quickly, because fat delays the absorption of sugar.
- ☛ Protein foods (such as milk and nuts) should not be used to treat hypoglycemia.
- ☛ In severe hypoglycemia, the blood sugar is too low to be treated by the 15-15 Rule. The treatment of severe hypoglycemia is glucagon, an injectable hormone available by prescription.

What should I do next?

When blood sugar levels return back to near normal and your next meal is more than one hour away, eat a snack to prevent another drop in your blood sugar. It is important to talk to your health care provider about the reasons that you had low blood sugar. By understanding the cause of your hypoglycemia, you can prevent it from happening in the future.

Possible causes of hypoglycemia in people with diabetes:

In people with diabetes, the causes of low blood sugar may be related to:

- **Medications:** Too much insulin can cause hypoglycemia.
- **Food:** Changing food intake, such as skipping a meal or eating carbohydrates less than usual, can lead to hypoglycemia.
- **Physical activity:** Increasing physical activity level can lead to hypoglycemia.

Visit the following websites for more information on diabetes and hypoglycemia:

Centers for Disease Prevention and Control: [cdc.gov/diabetes/managing/manage-blood-sugar.html](https://www.cdc.gov/diabetes/managing/manage-blood-sugar.html)

American Diabetes Association: diabetes.org/diabetes/medication-management/blood-glucose-testing-and-control/hypoglycemia

NIH-National Institute of Diabetes and Digestive and Kidney Diseases: niddk.nih.gov/health-information/diabetes/overview/preventing-problems/low-blood-glucose-hypoglycemia



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