

PREVENTING, PREPARING FOR AND TREATING HYPOGLYCEMIA



Hypoglycemia occurs when your blood glucose (blood sugar) levels drop below normal ranges and is a dangerous condition that may require medical treatment.

You should talk with your provider about what blood glucose levels are normal for you. For most people, blood glucose levels **less than 70 mg/dL** are hypoglycemic.

If you have diabetes, you are at high risk for hypoglycemia if you:

- Are using insulin, especially if you have been using insulin for a long time.
- Use diabetes medications called sulfonylureas (glipizide, glimepiride or glyburide) or meglitinides.
- Miss or delay meals.
- Have liver or kidney disease.
- Have had previous hypoglycemic episodes or hypoglycemia unawareness.

Here are some tips for **preventing** hypoglycemia:

- Monitor and record your glucose levels frequently.
- Eat meals and snacks on a regular schedule.
- When exercising, pay careful attention to blood glucose levels.
 - You may need to eat a snack containing carbohydrates or reduce your insulin before exercising.
- Avoid alcohol or, when drinking, eat a meal or a snack.
- If you use insulin, use an insulin pen (if possible) for more accurate dosing.
- Talk to your provider about whether you qualify for continuous glucose monitoring (CGM), which can let you know when your numbers are low or are dropping quickly.

The signs and symptoms of hypoglycemia can manifest quickly and differ from person to person. If you experience any of the following symptoms, check your blood glucose levels right away.

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| • Shakiness. | • Dizziness or lightheadedness. | • Blurry vision. |
| • Nervousness or anxiety. | • Hunger. | • Tingling or numbness in the face. |
| • Sweating, chills, clamminess. | • Nausea. | • Headache. |
| • Irritability or impatience. | • Pale skin. | • Loss of coordination, clumsiness. |
| • Fast or racing heartbeat. | • Sleepiness, weakness, fatigue. | • Nightmares. |
| | | • Seizures. |

What if I feel hypoglycemic but my blood sugar is normal (>70 mg/dL)?

This is common and can happen when your blood glucose drops rapidly (for example, from 200 to 85 mg/dL) in a short period of time, or if you have had high blood glucose readings for a long time and are working on lowering them to normal levels (A1C <7%). Your body is used to being “high” and will take time to feel stable at normal levels.

Next Steps

- Continue monitoring your blood glucose to make sure it does not drop below 70 mg/dL.
- After treating with carbohydrates, eat a small snack that is mostly protein, such as low-fat cheese or peanut butter, to stabilize blood glucose.
- Avoid consuming glucose or carbohydrates to prevent your blood glucose from spiking again.
- Report these symptoms to your provider for further discussion. Your provider may want to investigate other conditions that can cause symptoms of hypoglycemia.



If you are at high risk of hypoglycemia, wear medical alert jewelry that identifies that you have diabetes and are at risk of hypoglycemia.

How to Treat Hypoglycemia

15-15 Rule

Consume 15 grams of quick-acting carbs and check your blood sugar again in 15 minutes. If your blood sugar is still less than 70 mg/dL, repeat this process. Once your blood glucose levels are above 70 mg/dL, eat a snack with protein and work with your health care provider to keep your blood glucose levels above 70 mg/dL.

Examples of items with 15 g of quick-acting carbs:



4 oz or ½ cup of juice or regular (not diet) soda



1 tablespoon sugar, honey, jam, or syrup



Glucose tablets or gel (follow instructions on packaging)

Glucagon Products

Glucagon is a treatment for severe hypoglycemia that is prescribed by your health care provider and kept on hand just in case. If you are treating your diabetes with insulin or are at high risk for hypoglycemia, you should always have glucagon with you.

Glucagon is available in several different formulations:



Vial and syringe emergency kit*



Autoinjector or prefilled syringe



Intranasal powder

*This is an older type of glucagon that may no longer be available.

Remember, if you are experiencing severe hypoglycemia, you may not be able to give yourself glucagon if you are unconscious or weakened. **Before** you have a hypoglycemic episode, make sure that you:

- Familiarize yourself with the instructions for using your glucagon
- Show your family members and others where glucagon is stored, both at home and on the go
- Ensure your family members or caregivers know how to administer the glucagon
- Inspect and replace expired glucagon (usually every 1-2 years)

Talk to Your Health Care Provider

If you experience hypoglycemia, you should always follow up with your health care provider. They can work with you to prevent future episodes of hypoglycemia. Make sure to bring your glucose level logs and any notes about your hypoglycemic episodes (symptoms, what happened right before the episode, how it was treated).

Your provider may want to discuss newer medications, such as GLP-1 receptor agonists, SGLT2 inhibitors, or DPP-4 inhibitors. These drugs have been shown to reduce the risk of hypoglycemia.

Abbreviations: DPP-4, dipeptidyl peptidase-4; GLP-1, glucagon-like peptide-1; SGLT2, sodium-glucose cotransporter-2.