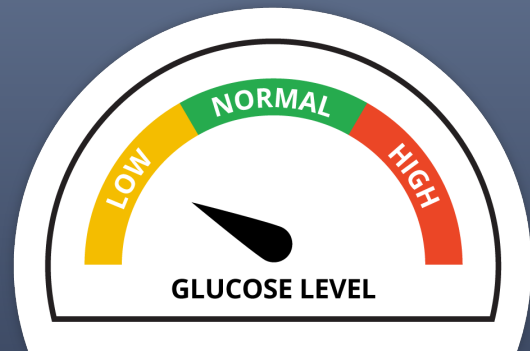


Understanding Hypoglycemia and Low Blood Sugar



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What Is Hypoglycemia?

When the amount of sugar in a person's blood is too low to provide their body with a sufficient amount of energy, they experience something called hypoglycemia. The word "hypoglycemia" literally means "less than normal blood sugar" and is defined as a blood sugar level below 70 mg/dl (3.9 mmol/l). For people with diabetes, this condition can be quite dangerous because the body cannot operate correctly.

There are many factors that can impact your blood sugar levels. Among the most common are too much insulin, too much physical activity, or alcohol use. Certain medications like sulfonylureas can also increase your risk of hypoglycemia. You can visit diatribe.org/42factors to learn more about these factors and how they affect your blood sugar.

It is important for people with diabetes and the people who love them to know the physical signs of hypoglycemia (also called "hypo") such as irritability, confusion, or even seizures and unconsciousness during extreme lows. To correct a low blood sugar, people with diabetes commonly use fast-acting carbohydrates to bring their blood sugar back to normal. In extreme cases, emergency glucagon can be used.



Signs & Symptoms of Hypoglycemia

Early signs and symptoms

- Shakiness
- Dizziness
- Sweating
- Hunger
- Irritability or moodiness
- Anxiety or nervousness
- Headache

Nighttime symptoms

- Damp sheets or pajamas due to perspiration
- Nightmares
- Tiredness, irritability or confusion upon waking

Severe symptoms

- Clumsiness or jerky movements
- Muscle weakness
- Difficulty speaking or slurred speech
- Blurry or double vision
- Drowsiness
- Confusion
- Convulsions or seizures
- Unconsciousness



How to Increase Blood Sugar

If you're experiencing hypoglycemia, the quickest way to increase your blood sugar is by eating, drinking, or taking something that contains sugar. Juice, glucose tablets, a tablespoon of honey, and hard or gummy candies are all ways to increase your blood sugar.

The American Diabetes Association recommends the 15-15 rule: Have 15 grams of carbohydrate to raise your blood sugar and check it after 15 minutes. If it's still below 70 mg/dL, have another serving. Repeat these steps until your blood sugar is at least 70 mg/dL.

Keep these additional factors in mind:

- **Body Size:** The bigger you are, the more carbohydrates it takes to raise your blood sugar. This is because larger people have more blood volume into which the glucose will dissolve. Every gram of carbohydrate will raise a small child's blood sugar much more than that of a fully-grown adult.
- **How Low You Are:** The lower your blood sugar, the more carbohydrates you will need to get back up to normal. One way to determine the amount needed for you specifically is with this formula:

$$\frac{\text{Target BG} - \text{Current BG}}{\text{BG Rise per Gram of Carb}} = \text{Grams of Carbs Needed}$$



Don't Overcorrect Hypoglycemia — 4 Strategies to Avoid Rebound High Blood Sugar

When you're experiencing hypoglycemia, it can be easy to eat too much and overcorrect the low blood sugar — and possibly cause high blood sugar (hyperglycemia). To avoid overcorrecting your low blood sugar, here are four proven strategies:

1. Have go-to corrections for hypoglycemia that are quantity limited and unappealing to overeat.

Glucose tablets and Smarties are predictable, relieve low symptoms very quickly, and you're unlikely to overeat them. Jelly beans, mini Swedish Fish, gummies, or hard candy are also good options and you can modify the amount to match exactly what your blood sugar needs.

3. Do NOT use hypoglycemia as a justification to eat junk.

It's enjoyable and easy to view a low as "treat time," which can lead to overeating and high blood sugar. Plus, it connects a food reward (treat) with something you should avoid (going low) — an easy way to build a bad habit.

2. Fill in the blanks: Eating (amount) of (food) raises my blood sugar by _____ mg/dl.

Example: Eating one glucose tablet raises my blood sugar by 20 mg/dl. The only way to discover this is by checking your blood sugar, eating a food that has been measured out, and then checking again in roughly 15-30 minutes. This knowledge can help you adjust the amount of food to raise blood sugar to your target range in the future, without overshooting.

4. Continuous glucose monitoring (CGM) often has lag time in hypoglycemia; it should not be the only indicator of "I've recovered" or "I'm still low and need to eat more."

Continuing to see low glucose levels on your CGM, if you use one, might encourage you to overeat correction foods, but your blood sugar may have recovered and the sensor hasn't picked it up yet. If you still feel low and want to eat more, confirm a CGM reading 10-20 minutes later with a glucose meter before eating extra correction carbs.



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