

# Managing and Preventing Hypoglycemia

A nutrition resource for living well with diabetes

Hypoglycemia (low blood glucose) happens when blood glucose drops below optimal levels. A blood glucose of 70 mg/dl or less is considered hypoglycemia.

Hypoglycemia usually occurs in people who take insulin or certain diabetes pills; although, it can happen to anyone with diabetes.

Hypoglycemia may result from one or more of the following:

- Taking too much diabetes medication
- Delaying or skipping a meal
- Not eating enough carbohydrate at your meal
- Exercising harder or more than usual
- Drinking alcohol without food

## Symptoms of hypoglycemia

Symptoms can vary from person to person and based on how low the blood glucose is.

Mild hypoglycemia	Severe hypoglycemia
<ul style="list-style-type: none"> <li>• Shakiness, trembling or lack of coordination</li> <li>• Sweating</li> <li>• Blurred vision</li> <li>• Dizziness or feeling lightheaded</li> <li>• Anxiety or worry</li> <li>• Weakness, fatigue</li> <li>• Headache</li> <li>• Hunger</li> <li>• Inability to think clearly</li> <li>• Nausea, feeling sick</li> <li>• Rapid heartbeat</li> </ul>	<ul style="list-style-type: none"> <li>• Confusion</li> <li>• Becoming argumentative or combative</li> <li>• Extreme tiredness</li> <li>• Seizures or convulsions</li> <li>• Unconsciousness</li> </ul> <p><i>Note:</i> For severe hypoglycemia (not able to eat or drink), a family member or friend may need to use an emergency glucagon kit to bring your blood glucose up. Work with your diabetes care team and a family member or friend to learn <i>how</i> and <i>when</i> to use the emergency glucagon kit.</p>

Take note of how often you experience symptoms of hypoglycemia, and test your blood glucose more often for the next day or two. If you experience hypoglycemia several times per week, discuss your treatment plan with your health care provider or a registered dietitian.

## Follow the Rule of 15 — to treat hypoglycemia

**Step 1)** Check your blood glucose. If it is below 70 mg/dl, eat or drink **15 grams** of carbohydrate.

Examples include:

- 3–4 glucose tablets
- 15-gram tube of glucose gel or liquid
- 1/2 cup fruit juice
- 1/2 cup regular soda

If you cannot check your blood glucose right away, eat or drink 15 grams of carbohydrate just to be safe.

**Step 2)** Wait **15 minutes** — this is important! It takes 15 minutes to feel better, no matter how much carbohydrate you use to treat the low blood glucose.

**Step 3)** Check your blood glucose again. If your blood glucose level is still low (<70 mg/dl), or if you still have symptoms, repeat steps 1 through 3.

**If you still have a low blood glucose after three checks, call 911.**

**Step 4)** Check your blood glucose one hour after treatment, as additional carbohydrate may be needed if you don't have a meal or snack planned. (Blood glucose levels tend to drop about one hour after treatment).

## Prevention

To help prevent hypoglycemia, ask yourself the following questions:

- Can my diabetes medications cause hypoglycemia? Have my diabetes medications changed?
- Has my meal plan changed? Am I eating regular meals and snacks?
- Have I been more active than usual?
- Did I drink alcoholic beverages on an empty stomach?

**Work with your diabetes care team to understand when your diabetes medications peak, if your medication schedule matches your meal plan and activity, and how to treat hypoglycemia when it occurs. The amount of carbohydrate needed may vary with age and activity level.**

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For more information: Contact the American Dietetic Association at [www.eatright.org](http://www.eatright.org).

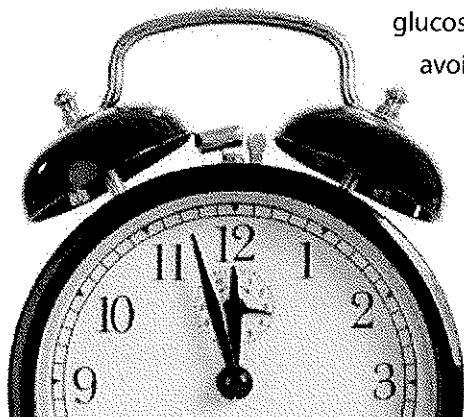
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## Treat — but don't over-treat!

It's easy to over-treat low blood glucose. You will likely feel anxious and want your symptoms to disappear as soon as possible. However, if you eat or drink too much, your blood glucose can rise too high. Regularly over-treating a low blood glucose level may also make managing your weight more difficult.

Follow the steps above to help you treat your low blood glucose, without over-treating. Portion-controlled glucose products (e.g., glucose tablets and gels) can also help you avoid over-treatment.

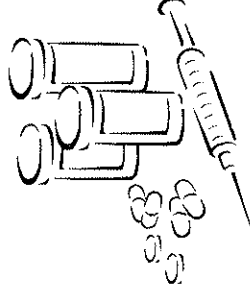
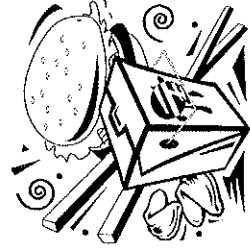
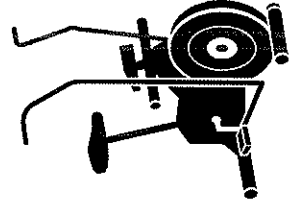


**Dex<sub>4</sub>**  
Fast Acting Glucose



# High and Low Blood Glucose (hyperglycemia & hypoglycemia) Symptoms and Causes

High Blood Glucose Symptoms (Hyperglycemia)	High Blood Glucose Causes	Low Blood Glucose Symptoms (Hypoglycemia)	Low Blood Glucose Causes
Thirst Hunger Frequent urination Fatigue Nausea Blurred vision Headache Nervousness Confusion	Too much food Too little exercise Too little medicine Stress Illness Injury Short time between meals and snacks	Shakiness Sweaty Hunger Anxiety Nervousness Confusion Acting angry or irritable Slurred speech Headache	Too little food Too much medicine More activity than usual Too long between meals or snacks Alcohol





## Examples of Treatments for Hypoglycemia (low blood glucose)

Food Item	Amount
Orange or apple juice	1/2 cup
Grape or cranberry juice	1/3 cup
Soft drink with sugar	1/2 cup
Honey or corn syrup	1 tablespoon
Sugar packets	4
Hard candies	3–4
Graham crackers	3
Raisins	2 tablespoons
Glucose tablets	3-4
Skim or low fat milk	1 cup

Within 15 minutes of treatment, you should feel better. Test your glucose. If it is still less than 70, or you don't feel better, take another 15 grams of fast-acting carbohydrate. If the blood glucose level does not improve after three of these treatments, call the doctor.