



Treatment for Low Blood Sugar (Hypoglycemia)

Recommendations for treatment of low blood sugar in individuals with diabetes and on dialysis

Renal Dietitians

a dietetic practice group of the
eat right. Academy of Nutrition and Dietetics



Introduction

Low blood sugar, also known as **hypoglycemia** (hahy-poh-glahy-SEE-mee-uh) occurs when your glucose level in the blood is low.

Usually, hypoglycemia occurs in people who take medications to treat diabetes, or high blood sugar. These medications can be in the form of pills taken by mouth or by an injection, such as insulin.

●●● Normal, fasting blood glucose is **80-130 mg/dl** for most individuals who have diabetes. If your blood glucose falls to **70 mg/dl or less**, then you may develop hypoglycemia.

Symptoms of Hypoglycemia

Hypoglycemia will begin with mild symptoms and if not treated quickly can lead to severe hypoglycemia.

The symptoms of hypoglycemia are not always the same for everyone. The most common symptoms are:

Mild Hypoglycemia

- Shakiness
- Sweating
- Blurred vision
- Dizziness/lightheadedness
- Anxiety/worry
- Weakness/fatigue
- Headache
- Hunger
- Poor concentration
- Nausea
- Rapid heartbeat

Severe Hypoglycemia

- Confusion
- Argumentative/combative
- Extreme tiredness/fatigue
- Seizures/convulsions
- Unconsciousness

Causes of Hypoglycemia

Low blood sugar may occur for number of reasons, including any of the following:

- Taking too much insulin or diabetes medication
- Delaying or skipping a regularly scheduled meal or snack
- Not eating your usual meal or snack before or after your hemodialysis treatment
- Not eating enough carbohydrate at your meal or snack
- Exercising longer or harder than usual
- Drinking alcohol without food

Terms to Know

●●● **glucose:**
the sugar in blood

●●● **carbohydrate:**
foods often referred to as sugars or starches, which your body uses to make glucose

●●● **hemodialysis:**
a treatment that cleans your blood when kidneys are not working properly, sometimes called just "dialysis".

●●● **glucometer:**
a device used to test blood glucose (sugar) levels



Treatment of Hypoglycemia

Follow the "Rule of 15" to Treat Hypoglycemia

If you have a glucometer, check your blood glucose. If it is below 70 mg/dl, follow these steps:

- | | | | |
|---|---|---|--|
| 1. Eat or drink 15 grams of carbohydrate (see the recommended list below). | 2. Wait 15 minutes after eating or drinking the carbohydrate. This is how long it takes to start raising your blood sugar. | 3. Check your blood sugar again. If your blood sugar has not gone above 70 mg/dl, then repeat steps 1 and 2. | 4. If your blood sugar <i>still</i> has not reached 70 mg/dl or higher after checking three times, then call 911. |
|---|---|---|--|

If you are unable to check your blood sugar level with a glucometer, eat or drink 15 grams of carbohydrate to prevent severe low blood sugar.

Recommended Foods and Beverages

These contain 15 grams of carbohydrate used to treat low blood glucose for people on dialysis:

3 glucose tablets or 1 tube of glucose gel 	1 Tablespoon (or 3 teaspoons) of sugar 	6 pieces of regular, hard candy 	1/2 cup of apple, grape, or cranberry juice 	1/2 cup regular lemonade 	1/2 cup regular lemon-lime soda or ginger ale 
--	---	--	--	---	---

After your blood sugar is successfully treated, be sure to eat a snack or meal within one hour to prevent your blood sugar dropping too low again.

Foods and Beverages to Avoid

People on dialysis should **avoid drinking orange, prune, or vegetable juices** since they can be very high in potassium. Also, **try not to eat chocolate candies** since they contain a lot of fat and will slow your blood sugar from rising. In addition, chocolate candy has potassium and phosphorus, which dialysis patients should limit in their diet.

Prevention of Hypoglycemia

It is always better to prevent low blood sugar than have to treat it. Here are a few suggestions to avoid hypoglycemia:

- Make sure you are taking the correct dose of your diabetes medicines, including your insulin dose if you take insulin.
- Check your blood sugar before and after exercising.
- If you consume alcohol, avoid drinking on an empty stomach.
- Always eat your meals and snacks at the same time each day.
- If traveling across time zones, eat meals and snacks on your home schedule.
- Always carry a form of quick-acting sugar with you such as glucose tablet, glucose gel, or hard candy.



If you have questions or need additional information, please contact your renal dietitian.