

Blood Sugar Management for Diabetics

For all diabetics, it is imperative to closely monitor blood sugar levels. Keeping blood sugar levels within targeted ranges helps prevent or delay serious health problems, such as heart disease, kidney disease, and vision loss. Mood stabilization and sustained energy levels can also be attributed to staying within a healthy target range for blood sugars. The following information may help guide individuals with diabetes towards a path of healthy blood sugar management. Always consult your healthcare provider before making any changes to your diabetes treatment plan.



Monitoring Blood Sugars

A glucometer or continuous glucose monitor (CGM) can be used to check blood sugars. A glucometer measures the amount of sugar in a blood sample, usually taken from the fingertip. A continuous glucose monitor measures blood sugar every few minutes via a sensor inserted under the skin. Daily glucometer blood sugar checks are still advised to ensure the CGM readings are accurate.

How Often Should I Check My Blood Sugars?

The type of diabetes and diabetic medication taken will affect how often blood sugar levels should be checked. The following are typically recommended times to check blood sugar levels:

- Upon waking, before eating or drinking
- Before every meal
- Two hours after every meal
- At bedtime

Targets for Blood Sugar*

- Before a meal: 80 to 130mg/dL
- Two hours after the start of a meal: Less than 180mg/dL

Age and additional health problems may alter individual blood sugar targets. Talk to your healthcare provider regarding your individual blood sugar levels/targets.

What Causes Hypoglycemia (Low Blood Sugars)?

Hypoglycemia has a multitude of causes, including missing a meal, too much insulin, taking other diabetic medications, strenuous exercise, and drinking alcohol. A blood sugar level below 70mg/dL is considered low. Low blood sugar can be dangerous. Understanding and recognizing early signs of hypoglycemia will facilitate immediate treatment. The following symptoms are common signs of low blood sugar:

- Shaking
- Sweating
- Anxiety/Nervousness

- Confusion
- Irritability
- Dizziness
- Hunger

Hypoglycemia unawareness is the condition of having low blood sugars without feeling or noticing symptoms. If any individual has experienced low blood sugars WITHOUT symptoms, blood sugars will need to be monitored and checked more often and treated based on blood sugar levels.

How to Treat Hypoglycemia

Always carry low blood sugar supplies with you. If you feel any of the low blood sugar symptoms listed previously, immediately check your blood sugar. If you think your blood sugar may be low but experience no symptoms, still check your blood sugar. It is recommended to do **one** of the following interventions immediately if your blood sugar falls below 70mg/dL:

- Take four glucose tablets.
- Drink four ounces of fruit juice.
- Drink four ounces of regular soda (**not** diet soda).
- Eat four pieces of hard candy.

Recheck blood sugar every 15 minutes and repeat **one** of the above listed interventions until your blood sugar level reaches 70mg/dL or higher. Make sure to eat a snack if your next meal is more than an hour away. If you experience repeated low blood sugar issues, contact your healthcare provider regarding your treatment plan.

What Causes Hyperglycemia (High Blood Sugar)?

Sickness, stress, overeating, and too little insulin can all lead to high blood sugars. Over time, hyperglycemia can lead to serious health issues. Blood sugars can be hard to manage when you are ill, as you may not be eating or drinking as much. If you are sick and your blood sugar is 240mg/dL or higher, it is recommended to purchase an over-the-counter ketone test and check your urine for ketones. (Elevated ketones can be an early sign of diabetic ketoacidosis—a medical emergency that needs to be treated immediately.) Symptoms of hyperglycemia include:

- Blurry vision
- Feelings of thirst
- Frequent urination (more than usual)
- Fatigue (feeling very tired)
- Diabetic ketoacidosis (DKA)

Diabetic ketoacidosis occurs when there are dangerously high levels of ketones in the body. DKA is a medical emergency and, if left untreated, can cause coma or death. If you think you may be experiencing DKA, test your urine for ketones. If ketones are elevated, call your healthcare provider immediately. DKA treatment requires care in a hospital. The following are common symptoms of DKA:

- Fast, deep breathing
- Dry mouth and skin
- Fruity smelling breath
- Headache, muscle stiffness or aches
- Flushed face

- Nausea and vomiting
- Stomach pain

How to Treat Hyperglycemia

- Take medications as prescribed.
- Follow a diabetes meal plan*.
- Monitor blood sugars as directed by your healthcare provider.
- Be more active. (However, do **not** exercise if ketones are present in your urine.)
- Talk to your healthcare provider about adjusting insulin dosages or types (e.g., short-acting, long-acting) if needed.

**Counting carbohydrates in foods and drinks is essential for managing blood sugar levels. Carbs in food and drinks can make blood sugar levels increase. The amount of carbs each person can ingest and stay within targeted blood sugar ranges depends on age, weight, and activity levels. Talk to your healthcare provider regarding carbohydrate goals in your diabetic meal plan.*

Remember the ABCs of Diabetes

A: Get a regular **A1C** test—a simple blood test that measures blood sugar levels over the past 2-3 months. This test is performed at a provider's office and resulted from a lab. An A1C goal for most adults with diabetes is between 7% and 8% but can depend on age, medications, and other health factors. Talk to your healthcare provider about your target A1C goal.

B: Strive to keep your **blood pressure** below 140/90 (or whatever target your healthcare provider sets).

C: Monitor and manage **cholesterol** levels.

s: **Stop smoking** or never start.

Additional Ways to Manage Blood Sugar Levels

- Track food and drink intake as well as your physical activity.
- Monitor and track blood sugar levels; look for trends of when levels go up and down.
- Control food portions and choose foods lower in calories, saturated fat, trans fat, sugar, and salt.
- Limit alcohol.
- Do not skip meals; eat at regular times.
- Avoid juice or soda; drink water instead.
- If you are craving a sweet treat, choose fruit!

Source: Centers for Disease Control and Prevention ([cdc.gov](https://www.cdc.gov))