

Checking your blood sugar

Keep track of your diabetes at home every day. This means:

1. Test your blood sugar and
2. Test for blood in your urine (ketone testing) when you are sick or if your blood sugar levels are high.

Your test results will help you and your diabetes care team decide if you need to change your meal plan, level of activity, or treatment.

Take your blood glucose log, meter, and medications with you every time you see your doctor. Your doctor will want to review your blood sugar results, check that your meter is working properly, and note your medication doses.



When to test

Testing times are based on the kind of medicine you take and on how well your sugar levels are managed. Your doctor or diabetes care team will recommend how often you should test your sugar levels.

Listed below are times that you may be asked to test:

- Fasting (first thing in the morning — usually 8 hours without eating/drinking anything but water)
- Before meals
- 1-2 hours after meals (from your first bite)
- At bedtime
- At 2:00 a.m.



Blood sugar goals

Discuss these goals with your doctor:

	Goals from the American Diabetes Association	Goals from the American College of Endocrinology
Pre-meal blood sugar	70-130 mg/dL	less than 110 mg/dL
Post-meal blood sugar	less than 180 mg/dL	less than 140 mg/dL
A1c	less than 7%	less than or equal to 6.5%



Remember:

The more often you check your blood sugar, the more chances you have to change the course of your diabetes.

When your blood sugar values are abnormal, this is a “call to action” to make a change — in your meal plan, physical activity, or medications.



What does my blood sugar testing tell me?

<u>Time of test</u>	<u>Can be used for</u>
Fasting blood sugar (before breakfast) Night time blood sugar (2 a.m.)	Adjust insulin or medications
Before a meal	Adjust meal plan or before-meal insulin
1-2 hours after beginning a meal	See how food affects values (Often the highest blood sugar of the day)
At bedtime	Adjust meal plan or medications



Check your blood sugar more frequently if:

- ✓ Your medicine changes or you start a new medicine
- ✓ You start a new meal plan
- ✓ You change your exercise routine or your activity level changes
- ✓ You feel more stress
- ✓ You are sick. When you are sick, even without eating, your blood sugar levels may run high, so testing is important!



Other reasons to check your blood sugar:

- ✓ If you have symptoms of low blood sugar (hypoglycemia), such as dizziness, shaking, sweating, chills, and confusion
- ✓ If you have symptoms of high blood sugar (hyperglycemia), such as sleepiness, blurred vision, frequent urination, and excessive thirst
- ✓ To see how meals, physical activity, and medicine affect your blood sugar level
- ✓ To document how well your blood sugar is managed if you have a job in which poor control could affect your safety
- ✓ To help you decide if it is safe to drive or perform other tasks that require concentration
- ✓ Test your blood sugar whenever you do not feel well. Note in your log any symptoms, situation, or treatments that may be related. For example: if you ate a large meal, forgot to take your medicines, and had a low blood sugar reaction.



When you are ill or not feeling well

1. You will need to test blood sugar more often and may need to test ketones as well. (See Sick Day Rules.)
2. Test your blood sugar every 2-4 hours (or as medically advised) until stable and you are feeling better.

If you have type 1 diabetes:

- Test for ketones in your urine when you are ill or not feeling well.
- Test for ketones whenever your blood sugar is greater than 240 mg/dL.

Rest and get plenty of fluids (water or sugar-free beverages).

Be cautious of “sport-ade” types of drinks. Be sure and read the nutrition facts label to properly evaluate the amount of carbohydrates per serving.



Call your doctor if:

- ❗ Your blood sugar is greater than 240 mg/dL for more than 2 days
- ❗ Your blood sugar is less than 70 mg/dL more than twice a week
- ❗ If you have moderate to high ketones in your urine for more than 24 hours

When you call:

- ✓ Use your blood glucose log to report the dates, times, and results.
- ✓ Report time and amount of medicines you have taken or missed.



Understanding differences in results

Don't be worried if you test your glucose twice in a row and the results are slightly different. It is not abnormal for results taken a few minutes apart to vary 15-20%.

Also, results from your glucose meter will be very close to results from a lab test, but they may not be exactly the same. Normally they are within 15% of each other.



Tips for correct results:

- Wash your hands prior to testing. Juice or other stickiness can cause falsely high readings.
- If you use alcohol, let your finger dry before testing.
- Be sure to get enough blood for the test. Too little blood can cause incorrect readings. Many meters will show an error reading if there was not enough blood. Test again if this happens.
- Use control solution to test strips each time you open a new package, or when you are worried about accuracy.
- Keep your new strips in the original package and close tightly. When you remove a strip, recap tightly right away to prevent the strips from being exposed to moisture and light, which can cause false readings.
- Meters and strips can be affected by temperature. Store them according to the directions on the package. Usually, meters and strips should be kept 36-90° F. Do not freeze them.
- Throw away test strips if they are past the “use by” date, or if they have been out of their package for several months.
- Code or calibrate your meter for each new box of strips. A few of the newer meters do not require this step.
- Practice testing with your care team at each visit. Several times a year, compare your meter results by doing a blood sugar test with both your meter and the clinic meter at the same time.
- If you have anemia, poor circulation, or are on dialysis, talk to your doctor as your test values may be inaccurate.
- You can have poor test readings if your meter is old, dirty, or damaged.
- For any questions about your meter, call the meter company. You can find a toll-free number for customer service on the back of your meter.