ENGLISH

Know Your Blood Sugar Numbers: Use Them to Manage Your Diabetes

Checking your blood sugar, also called blood glucose, is an important part of diabetes care. This tip sheet tells you:

- why it helps you to know your blood sugar numbers
- how to check your blood sugar levels
- what are target blood sugar levels
- what to do if your levels are too low or too high
- how to pay for these tests

Why do I need to know my blood sugar numbers?

Your blood sugar numbers show how well your diabetes is managed. And managing your diabetes means that you have less chance of having serious health problems, such as kidney disease and vision loss.

As you check your blood sugar, you can see what makes your numbers go up and down. For example, you may see that when you are stressed or eat certain foods, your numbers go up. And, you may see that when you take your medicine and are active, your numbers go down. This information lets you know what is working for you and what needs to change.

"Checking my blood sugar helps me feel more in charge of my diabetes."

NIH National Institute of Diabetes and Digestive and Kidney Diseases

How is blood sugar measured?

There are two ways to measure blood sugar.

- Blood sugar checks that you do yourself. These tell you what your blood sugar level is at the time you test.
- The A1C (A-one-C) is a test done in a lab or at your provider's office. This test tells you your average blood sugar level over the past 2 to 3 months.

How do I check my blood sugar?

You use a blood glucose meter to check your blood sugar. This device uses a small drop of blood from your finger to measure your blood sugar level. You can get the meter and supplies in a drug store or by mail.

Read the directions that come with your meter to learn how to check your blood sugar. Your health care team also can show you how to use your meter. Write the date, time, and result of the test in your blood sugar record. Take your blood sugar record and meter to each visit and talk about your results with your health care team.

What are target blood sugar levels for people with diabetes?

A target is something that you aim for or try to reach. Your health care team may also use the term goal.

People with diabetes have blood sugar targets that they try to reach at different times of the day. These targets are:

Right before your meal	80 to 130
Two hours after the start of the meal	Below 180

Talk with your health care team about what blood sugar numbers are right for you.

How often should I check my blood sugar?

The number of times that you check your blood sugar will depend on the type of diabetes that you have and the type of medicine you take to treat your diabetes. For example, people who take insulin may need to check more often than people who do not take insulin. Talk with your health care team about how often to check your blood sugar.

The common times for checking your blood sugar are when you first wake up (fasting), before a meal, 2 hours after a meal, and at bedtime. Talk with your health care team about what times are best for you to check your blood sugar.

What should I do if my blood sugar gets too high?

High blood sugar is also called hyperglycemia (pronounced hye-per-gly-**see**-mee-uh). It means that your blood sugar level is higher than your target level or over 180. Having high blood sugar levels over time can lead to long-term, serious health problems.

If you feel very tired, thirsty, have blurry vision, or need to pee more often, your blood sugar may be high. Check your blood sugar and see if it is above your target level or over 180. If it is too high, one way to lower it is to drink a large glass of water and exercise by taking a brisk walk. Call your health care team if your blood sugar is high more than 3 times in 2 weeks and you don't know why.

What should I do if my blood sugar gets too low?

Low blood sugar is also called hypoglycemia (pronounced hye-poh-gly-**see**-mee-uh). It means your blood sugar level drops below 70. Having low blood sugar is dangerous and needs to be treated right away.

Anyone with diabetes can have low blood sugar. You have a greater chance of having low blood sugar if you take insulin or certain pills for diabetes.

Carry supplies for treating low blood sugar with you. If you feel shaky, sweaty, or very hungry, check your blood sugar. Even if you feel none of these things, but think you may have low blood sugar, check it.

If your meter shows that your blood sugar is lower than 70, do one of the following things right away:

- chew 4 glucose tablets
- drink 4 ounces of fruit juice
- drink 4 ounces of regular soda, not diet soda or
- chew 4 pieces of hard candy

After taking one of these treatments, wait for 15 minutes, then check your blood sugar again. Repeat these steps until your blood sugar is 70 or above. After your blood sugar gets back up to 70 or more, eat a snack if your next meal is 1 hour or more away.

If you often have low blood sugar, check your blood sugar before driving and treat it if it is low.

What do I need to know about the A1C test?

The A1C test tells you and your health care team your average blood sugar level over the past 2 to 3 months. It also helps you and your team decide the type and amount of diabetes medicine you need.

What is a good A1C goal for me?

For many people with diabetes, the A1C goal is below 7. This number is different from the blood sugar numbers that you check each day. You and your health care team will decide on an A1C goal that is right for you.

How often do I need an A1C test?

You need to get an A1C test at least 2 times a year. You need it more often if:

- your number is higher than your goal number
- your diabetes treatment changes

How do I pay for these tests and supplies?

Medicare, Medicaid and most private insurance plans pay for the A1C test and some of the cost of supplies for checking your blood sugar. Check your plan or ask your health care team for help finding low cost or free supplies. Ask your health care team what to do if you run out of test strips. For more information about Medicare and diabetes, go to https://www.medicare.gov/.

What if I have trouble getting to my blood sugar goals?

There may be times when you have trouble reaching your blood sugar goals. This does not mean that you have failed. It means that you and your health care team should see if changes are needed. Call your health care team if your blood sugar is often too high or too low. Taking action will help you be healthy today and in the future.

John's Story

At each visit, John and his health care team look at his A1C test results, his blood glucose meter and his blood sugar record to see if his treatment is working. At today's visit, John's A1C and blood sugar numbers are too high. John and his health care team talk about what he can do to get closer to his A1C and blood sugar goals. John decides he will be more active. He will:

- increase his walking time to 30 minutes every day after dinner.
- check his fasting blood sugar in the morning to see if being more active improves his blood sugar.
- call his doctor in 1 month for a change in medicine if his blood sugar levels are still too high.
- have his A1C tested again in 3 months to see if his new plan is working.

Sample Blood Sugar Record

You can check your blood sugar at different times of the day. You might check your blood sugar when you first wake up. You could also check before and after a meal to see how the foods you eat affect your blood sugar.

Keep track of your blood sugar numbers by writing them down in a blood sugar record. You can use a paper log or an electronic tracker, such as a mobile app. Each time you check your blood sugar, write down the date, time and result in your blood sugar record. Write down special notes about your results like the foods you ate and how you felt. A sample record for 3 days is shown below.

Week of		Breakfast				Lunch				Dinner				Bedtime	
		Before		After		Before		After		Before		After		Bedtime	
Day	Date	Time	Blood Sugar	Time	Blood Sugar	Time	Blood Sugar	Time	Blood Sugar	Time	Blood Sugar	Time	Blood Sugar	Time	Blood Sugar
MON	May 8									6 PM	137	8 PM	245*	11:30 PM	145
	Comments/Medications: *I ate 3 slices of pizza for dinner. To lower my blood sugar, I drank a large glass of water and walked for 15 minutes.														
TUE	May 9	9:25 AM	61*	9:40 AM	83	12 PM	110								
	Comments/Medications: *I skipped breakfast and felt dizzy. I tested my blood sugar then drank 4 ounces of juice to raise my blood sugar.														
WED	May 10					1 PM	160*	3 PM	135						
	Comments/Medications: *My sugar was high before I ate my lunch, so I went for a 30 minute walk in the early afternoon. When I got home, my blood sugar was lower.														

Things to remember

- Check your blood sugar as many times a day as your health care team suggests.
- Have your A1C checked at least 2 times a year.
- Keep a record of your blood sugar and A1C numbers.
- Take your blood glucose meter and blood sugar record to your visit and show them to your health care team. Tell your health care team how you think you are doing.
- Call your health care team if your blood sugar is often too high or too low.
- Work with your health care team and decide what changes you need to make to reach your blood sugar goals.

Visit NIDDK's 4 Steps to Manage Your Diabetes for Life to learn more about managing diabetes.

For more information:

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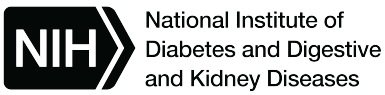

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