

All About Blood Glucose

Keeping your blood glucose (sugar) in your target range can prevent or delay the health problems caused by diabetes. Most of the steps needed to take care of diabetes are things you do yourself.

- Use a meal plan.
- Be physically active.
- Take your medicines.
- Try to reach your blood glucose targets most of the time.
- Keep track of your blood glucose numbers using the results from your daily blood glucose testing and your A1C check.

What makes my blood glucose levels rise or fall?

Blood glucose levels rise and fall throughout the day. One key to taking care of your diabetes is understanding why it rises and falls. If you know the reasons, you can take steps to help keep your blood glucose on target.

What can make blood glucose rise?

- a meal or snack with more food or more carbohydrates (carbs) than usual
- physical inactivity
- not enough diabetes medicine
- side effects of other medicines
- infection or other illness
- changes in hormone levels, such as during menstrual periods
- stress

What can make blood glucose fall?

- missing a meal or snack, or having a meal or snack with less food or fewer carbs than planned
- alcoholic drinks, especially on an empty stomach
- more activity than planned
- too much diabetes medicine
- side effects of other medicines



You can use a meter to check your own blood glucose levels.

What are the blood glucose targets for people with diabetes?

Targets set by the American Diabetes Association (ADA) are listed below. Talk with your health care team about your personal goals.

ADA Targets for Blood Glucose	My Usual Results	My Goals
Before meals: 80 to 130 mg/dl	_____ to _____	_____ to _____
2 hours after the start of a meal: below 180 mg/dl	below _____	below _____

What's the best way to keep track of my blood glucose levels?

Checking your blood glucose will tell you whether you're reaching your blood glucose targets. There are 2 ways to do it.

- Use a blood glucose meter to learn what your blood glucose is at the moment.
- Get an A1C check at least twice a year.

Using a blood glucose meter

Many people use their meter to check their blood glucose several times a day. Talk with your health care

team about when and how often to check your blood glucose. They can give you a record book where you can write down your blood glucose numbers. You can learn how to use your numbers to make choices about food, physical activity, and medicines.

Your results tell you how well your diabetes care plan is working. You'll be able to look at your record book and see patterns—look for similar results over and over. Looking at these patterns can help you and your health care team fine-tune your diabetes care plan in order to reach your targets.

Getting an A1C check

The A1C tells you your average blood glucose level over the past 2 to 3 months. Your results will be reported in two ways:

- A1C as a percentage
- estimated Average Glucose (eAG), in the same kind of numbers as your day-to-day blood glucose readings

Ask your health care team for this test at least twice a year. If your average blood glucose is too high, you may need a change in your diabetes care plan.

Association's Targets	My Last Result	My Goal
A1C: below 7%		
eAG: below 154 mg/dl		

What does my A1C number mean?

Find your A1C number on the left. Then, look at the number on the right under eAG to see your estimated Average Glucose for the past 2 to 3 months.

A1C (%)	eAG (mg/dl)
5	97
6	126
7	154
8	183
9	212
10	240
11	269
12	298



What if my blood glucose is often too high?

See your health care provider soon if your blood glucose numbers are often higher than your goals. Talk with your health care team about changes in your meal plan, your physical activity, or your diabetes medicines.

What if my blood glucose is too low?

Low blood glucose, also called hypoglycemia, occurs when your blood glucose level drops below 70 mg/dl. Low blood glucose can make you feel hungry, shaky, nervous, sweaty, light-headed, sleepy, anxious, or confused. If you think your blood glucose is too low, use your meter to check it. If the result is below 70 mg/dl, follow these guidelines to bring it back up to a safer range. Have one of the carb choices in this list (which each have about 15 grams carbohydrate) right away to raise your blood glucose:

- 3 or 4 glucose tablets
- ½ cup (4 ounces) of fruit juice
- ½ cup (4 ounces) of a regular (not diet) soft drink
- 8 ounces of milk
- 5 to 7 pieces of hard candy
- 1 tablespoon of sugar or honey

After 15 minutes, check your blood glucose again. If it's still below 70 mg/dl, eat another carb choice. Repeat these steps until your blood glucose is at least 70 mg/dl.

What should I do about frequent low blood glucose?

If your blood glucose is often low, you may need a change in your meal plan, physical activity, or diabetes medicines. Keep track of when you've had low blood glucose events. Note possible causes, such as unplanned physical activity. Then talk it over with your health care team.

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