

Diabetes: How to Test Your Blood Sugar

A home blood sugar test measures how much sugar (glucose) is in your blood at the time you check it. You can do the test anywhere. All you need is a blood glucose meter.

Why test your blood sugar?

Monitoring your blood sugar level takes the guesswork out of your daily diabetes care. It's important to test your blood sugar because:

- You need to know when your blood sugar is high or low to prevent an emergency.
- You need to know if your blood sugar is always too high. High blood sugar can cause problems with your heart, nerves, and blood vessels.
- If you take rapid- or short-acting insulin before meals, you need to know how much insulin to take.
- You need to know how exercise, diet, stress, and being ill affect your blood sugar.

You may also use home blood sugar testing to:

- Choose the correct first insulin dose and schedule, or adjust your insulin doses or schedule.
- Check for high or low blood sugar when you have symptoms.

How do you test blood sugar?

You will prick your finger, palm, or forearm with a small needle called a lancet to get a drop of blood. After putting the test strip in the blood glucose meter, place the blood on the test strip. The blood glucose meter gives the test results within a minute or less.

Every blood glucose meter is different. Some may need a larger or smaller drop of blood. Follow the instructions carefully.



- Wash your hands with warm, soapy water. Dry them well with a clean towel. You may also use an alcohol wipe to clean the area where you get the blood.
- Put a clean needle in the pen-sized holder.
- Remove a test strip from the bottle. Replace the lid right away. This keeps moisture from affecting the other strips. Test strips are sometimes stored inside the meter.
- Prepare the blood sugar meter. Follow the instructions included with your meter.
- Stick the side of your fingertip with the needle. Do not stick the tip of your finger. It will be more painful and you may not get enough blood to do the test. Some blood sugar meters use needle devices that can get a blood sample from your palm or forearm. But the finger is usually the most accurate place to test blood sugar.
- Put a drop of blood on the correct spot of the test strip.
- Using a clean cotton ball, apply pressure where you stuck your finger. This will stop the bleeding.

- Follow the directions with your blood sugar meter to get the results. Some meters take only a few seconds to give the results.
- Record your results. You and your doctor will use this record to see how often your blood sugar is within the recommended range. Your doctor will also use the results to decide if your medicines should be changed.

How often should you check it?

You need to check your blood sugar at least once a day. If you take insulin, you may need to check it several times a day. Make sure to discuss this with your doctor.

recommends that you stay within certain blood sugar level ranges. For example, one blood sugar range might be 70 before meals, and less than 180 one to two hours after a meal. But your doctor may set a different range for you. If you are pregnant and have diabetes, for example, your blood sugar ranges would be different.

What can affect the results?

Many things can affect your test results, including:

- The type and amount of food you eat.
- Illness or emotional stress.
- Smoking.
- Drinking alcohol.
- Medicines, such as birth control pills and some high blood pressure pills.
- Being sick or having an injury.
- Exercise.

What do the results mean?

The American Diabetes Association

©2007-2020 Healthwise, Incorporated. Healthwise disclaims any liability for use of this information, which does not replace medical advice. 2019-12-zp3864

Diabetes: Blood Sugar Levels

Table of Contents

- Topic Overview
- Credits

Topic Overview

Keeping your blood sugar in a target range reduces your risk of problems such as diabetic eye disease (retinopathy), kidney disease (nephropathy), and nerve disease (neuropathy).

Some people can work toward lower numbers, and some people may need higher goals.

For example, some children and adolescents with type 1 or type 2 diabetes, people who have severe complications from diabetes, people who may not live much longer, or people who have trouble recognizing the symptoms of low blood sugar may have a higher target range.

And some people, such as those who are newly diagnosed with diabetes or who don't have any complications from diabetes, may do better with a lower target range.

Work with your doctor to set your own target blood sugar range. This will help you achieve the best control possible without having a high risk of hypoglycemia.

The American Diabetes Association (ADA) suggests the following A1c and blood glucose ranges as a general guide.¹

- **Children of any age with type 2 diabetes and most adults with type 1 or type 2 diabetes (non-pregnant)**
 - A1c: Lower than 7.0%
 - Before meals: 80 to 130 milligrams per deciliter (mg/dL)
 - 1 to 2 hours after meals: Lower than 180 mg/dL
- **Youth (younger than 18 years old) with type 1 diabetes**
 - A1c: Lower than 7.5%
 - Before meals: 90 to 130 mg/dL
 - Bedtime and overnight: 90 to 150 mg/dL
- **Women with type 1 or type 2 diabetes who could become pregnant**
 - A1c: Lower than 6.5%
- **Women with type 1 or type 2 diabetes who become pregnant**
 - A1c: Lower than 6.0% if possible, 7.0% if risk of hypoglycemia is high
 - Before meals: Lower than 95 mg/dL
 - 1 to 2 hours after meals: 120 to 140 mg/dL or lower
- **Women who have gestational diabetes**
 - Before meals: Lower than 95 mg/dL
 - 1 to 2 hours after meals: 120 to 140 mg/dL or lower

Credits

Current as of: December 20, 2019

Author: Healthwise Staff

Medical Review:

E. Gregory Thompson MD - Internal Medicine

Kathleen Romito MD - Family Medicine

Adam Husney MD - Family Medicine

Rhonda O'Brien MS, RD, CDE - Certified Diabetes Educator

Note: The "printer friendly" document will not contain all the information available in the online document. Some information (e.g. cross-references to other topics, definitions or medical illustrations) is only available in the online version.



This information does not replace the advice of a doctor. Healthwise, Incorporated, disclaims any warranty or liability for your use of this information.

© 1995-2020 Healthwise, Incorporated. Healthwise, Healthwise for every health decision, and the Healthwise logo are trademarks of Healthwise, Incorporated.