

A1C Testing

BAYER HEALTH FACTS



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American Association
of Diabetes Educators



Bayer HealthCare
Diabetes Care

A1C TESTING

As you know, keeping your diabetes in good control is the key to staying healthy. You check your blood sugar levels at different times of the day to see the effect of your diabetes management on your blood glucose. (see our Bayer Health Facts brochure on **Blood Sugar Testing**). Self-monitoring of your blood sugar tells you what your blood sugar level is at that moment, which is very helpful. However, your blood sugar levels change a lot over the course of a day. Self-monitoring your blood sugar is just one part of your diabetes management plan. It ALONE does not give you the whole picture.

There is another test that can tell you your average blood sugar for the past 2 to 3 months. This test is called an A1C. You may hear a few different names for this test, including:

- HbA1C
- Glycohemoglobin
- A1C



A1C tests tell you your average blood sugar for the past 2 to 3 months.

WHAT IS HEMOGLOBIN?

Hemoglobin is a protein inside your red blood cells. It is the part of the red blood cell that carries oxygen from your lungs to the rest of your body. Hemoglobin also carries sugar, because sugars can stick to all kinds of proteins in your body. Once sugar sticks to hemoglobin, it is stuck there for the life of the red blood cell, about 3 or 4 months. The more sugar there is in your blood, the more will end up stuck to the hemoglobin, which increases the A1C level.

WHAT DOES THE A1C MEASURE?

A1C is a measure of how much sugar is stuck to your hemoglobin. Your A1C reading tells you and your healthcare team what your average blood sugar level has been for the past 2 or 3 months. If you have lots of sugar in your blood and your average blood sugar has been high for the past few months, then your A1C will be high. The A1C test allows you to see overall how good your control has really been. You should talk to your healthcare team about your daily blood sugar tests and your A1C.

HOW DOES MY A1C READING COMPARE TO MY DAILY BLOOD SUGAR LEVELS?

A1C Reading	Average Blood Sugar Level
6%	135 mg/dL
7%	170 mg/dL
8%	205 mg/dL
9%	240 mg/dL
10%	275 mg/dL
11%	310 mg/dL
12%	345 mg/dL

This chart is an example of how blood sugar compares to A1C. The numbers in this chart are for non-pregnant adults. Your action steps should be discussed with your healthcare team. Some labs use different ways to test and have a different normal range. Talk to your healthcare team about your results.

Your A1C reading lets you know more about your blood sugar control than just self-testing alone.



HOW CAN A1C TESTING HELP ME?

An A1C higher than 7% is a warning sign that your diabetes is out of control and may increase your risk of developing complications. If your A1C is high, your healthcare team may change your diabetes plan to help control your blood sugar better.

Changes in your plan are expected from time to time and will help bring your A1C closer to normal.

When your A1C is close to normal (4- 6%), you know you are doing all you can to stay healthy. Research shows that good blood sugar control does lower your risk of developing major related health problems including heart disease, stroke, kidney disease, eye disease, nerve damage, amputations, and circulation problems. By keeping your blood sugar close to normal, you can stop or delay the damage high blood sugar does to blood vessels and nerves. You can prevent the complications of diabetes (see our Bayer Health Facts brochure on **Take Charge of Your Diabetes**).



WHERE DO I GO FOR AN A1C TEST?

There are several places that you can go to have your A1C checked. Some doctors can do an A1C in their office by taking a blood drop from a finger stick.

You can wait for the results and discuss them with your doctor right away. A1C tests can also be done at a lab and at some pharmacies. Additionally, there are now at-home A1C tests available.

(You do not have to be fasting to have your A1C tested.)

HOW OFTEN SHOULD I HAVE AN A1C TEST?

American Diabetes Association (ADA) recommends performing the A1C test at least two times a year in patients who are meeting treatment goals (and who have stable glycemic control) and quarterly (4 times per year) in patients whose therapy has changed or who are not meeting glycemic goals. Two major studies have shown the importance of good blood sugar control and the relationship of the A1C to diabetes complications.

The first was the Diabetes Control and Complications Trial (DCCT). In this study, patients who had close to normal A1C were in better health and had fewer cases of eye disease, kidney disease, and nerve damage.

The other study was called the United Kingdom Prospective Diabetes Study (UKPDS). This was a study done with patients with type 2 diabetes. People who had good blood sugar control were in better health in this study, too.

Both of these studies show that the hard work it takes to control your blood sugar is worth it. Your healthcare team will help you take good care of your blood sugar. They will tell you how often you should have an A1C.

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MY A1C TARGET GOAL IS: < 7%
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HOW A1C TESTING HELPED MARIA

Maria has type 2 diabetes. She was testing her blood sugar every morning before breakfast. Her blood sugars were usually normal, below 100 mg/dL. She was shocked when she learned her A1C was high (9%)



which compares to an average blood glucose of 240 mg/dL (see chart on previous page). Maria found out that her morning blood sugar was normal, but her blood

sugar at other times of the day was high. She needed to control her morning sugar AND her after-meal and bedtime blood sugar. With the help of her healthcare team, Maria made changes to her diabetes care plan to help her control her blood sugar. In fact, Maria was happy to learn that her A1C went down to 7.5% by her next visit, which showed her new plan was really working—all day long.



When you control your blood sugar, you are better able to manage your diabetes. That's why you test your blood glucose regularly. The A1C test is another tool you can use to track how your diabetes management is affecting your diabetes control. Be sure you make use of this helpful tool. Just remember — the power to manage your diabetes is in your hands.

For more information about Diabetes Care Systems and support from Bayer, or help with your diabetes testing supplies, call our toll-free Customer Service Help Line at 1-800-348-8100 (24 hours, 7 days a week).

You can also visit our web site at:
www.BayerDiabetes.com/us



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www.diabeteseducator.org