A1C test and calculator

The A1C test (also known as HbA1c or glycated hemoglobin) provides a long-term look at blood sugar control, so you can see how well your self-care plan is working.

A1C calculator

See how an A1C test result correlates to average daily blood sugar. Enter your average blood sugar reading or your latest A1C result and click Calculate.

Average Blood Sugar* 250  CALCULATE  10.33 A1C (from 5.0-12.0%)

Studies show that an A1C result above 7% carries an increased risk of long-term complications. Start lowering your blood sugar, and you can reduce your risk of vision loss, nerve damage, heart disease and more. Get tips from your doctor right away.

*This tool uses average plasma blood sugar readings—the measure used by most meters available today. It should not be used to predict an A1C and is not a substitute for a clinical test performed by your doctor. It is intended to show the relationship between a healthy A1C and self-monitoring results, and give you an idea of how you can help prevent long-term diabetes complications.

What is A1C?

Your A1C test measures your average blood sugar levels by taking a sample of hemoglobin A1C cells—a specific component of your red blood cells.

Some blood sugar (or glucose) naturally attaches itself to A1C cells as they move through your bloodstream. When this happens, the cell is considered "glycated." The more sugar in your blood, the higher the percentage of glycated A1C cells you'll have.

Once a cell has been glycated, it stays that way. And since each A1C cell has a lifespan of about 4 months, your A1C sample will include cells that are a few days, a few weeks and a few months old. As a result, the test covers a span of about 2 to 3 months.

Self-monitoring and A1C

As important as the A1C is, however, it's not a substitute for frequent self-monitoring. Only regular blood sugar checks show you how meals, activity, medications and stress affect your blood sugar at a single moment in time, as well as over the course of a day or week.

In fact, without regular self-testing to provide day-to-day insights, an A1C result can be misleading. Because it gives a long-term view, a person with frequent highs and lows could have an average A1C that looks quite healthy. The only way to get a complete picture of your blood sugar control is by reviewing your day-to-day self-checks along with your regular A1C tests, and working closely with your healthcare team to interpret the results.

How often do I need an A1C test?

The American Diabetes Association recommends an A1C test at least two times a year for those who are in good control. For those who have changed their therapy or who are not in good control and not meeting glycemic goals, an A1C test is recommended quarterly. Your doctor will help decide what's right for you.

To learn more about your A1C, visit the American Diabetes Association website.
Diabetes Heroes

Meet the Diabetes Hero we have to thank for the American Diabetes Association.

Print handy resources

Access health info, travel tips, school forms and self-care resources in the ACCU-CHEK Inner Circle.

Diabetes Heroes

These Diabetes Heroes keep us all well educated. Watch what they have to say.

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