

Hemoglobin A1c (A1C)



The hemoglobin A1c test (A1C) is a simple blood test that tells how well you controlled your blood sugar (BS) over the past 2 to 3 months*. The A1C test is not a replacement for your daily blood sugar testing. Both tests are part of good care.

Hemoglobin is a protein in the blood. The A1C test tells you the percent (%) of your hemoglobin that's coated with sugar. The higher the A1C, the worse your BS control.

- For people who don't have diabetes, the normal A1C is between 4% and 5.6%
- For people who have diabetes, the A1C goal is less than 7%
- You and your healthcare provider will decide your personal target A1C
- If your A1C is more than 8%, changes need to be made in how you care for your diabetes – you should check with your healthcare provider

How is the A1C test done?

The blood is drawn from a vein in your arm. You do not need to fast or do anything special before you take the test.

How often should you have an A1C test?

- Two times a year if you are meeting treatment goals and have good blood sugar control
- Four times a year if you have a change in treatment and are not meeting blood sugar goals
- How often you have an A1C test depends on your health status, your diabetes care plan, and the advise of your healthcare provider**

Why is the A1C test important?

The A1C test helps you and your healthcare provider know if you have good overall control of your diabetes. This is important because without good control, you may develop problems such as eye trouble, kidney damage, pain in your hands and feet, etc.

How does A1C relate to daily blood sugar?

Because blood sugar levels vary each day, it's important to know how well your blood sugar is controlled over time.

- The A1C test measures your average blood sugar level over the past 2 to 3 months
- The A1C test does not predict the future

This table shows how your A1C percent ties into average daily blood sugar levels:

A1C (%)	Average Daily Blood Sugar
5	97
6	126
7	154
8	183
9	212
10	240
11	269
12	298

Data from the A1C-Derived Average Glucose (ADAG) Study (2006)

*American Diabetes Association, 2013

**American Diabetes Association, 2013 *Clinical Practice Recommendations*

The Nurse Practitioner Healthcare Foundation thanks NIPRO Diagnostics for providing an educational grant in support of this public health education project.

