

# A1C test

A1C is a lab test that shows the average level of blood sugar (glucose) over the previous 3 months. It shows how well you are controlling your diabetes.

## How the Test is Performed

A blood sample is needed. Two methods are available:

- Blood drawn from a vein ([venipuncture](#)). This is done at a lab.
- Finger stick. This can be done in your health care provider's office. Or you may be prescribed a kit that you can use at home.

## How to Prepare for the Test

No special preparation is needed. The food you have recently eaten does not affect the A1C test, so you do not need to fast to prepare for this blood test.

## How the Test will Feel

With a finger stick, you may feel slight pain.

With blood drawn from a vein, you may feel a slight pinch or some stinging when the needle is inserted. Afterward, there may be some throbbing or a slight bruise. This soon goes away.

## Why the Test is Performed

Your doctor may order this test if you have [diabetes](#). It shows how well you are controlling your diabetes.

The test may also be used to screen for diabetes.

Ask your doctor how often you should have your A1C level tested. Usually, doctors recommend testing every 3 or 6 months.

## Normal Results

The following are the results when A1C is being used to diagnose diabetes:

- Normal (no diabetes): Less than 5.7%
- Pre-diabetes: 5.7% to 6.4%

- Diabetes: 6.5% or higher

If you have diabetes, you and your doctor or nurse will discuss the correct range for you. For many people, the goal is to keep the level below 7%.

The test result may be incorrect in people with anemia, kidney disease, or certain blood disorders (thalassemia). Talk to your doctor if you have any of these conditions.

The examples above are common measurements for results of these tests. Normal value ranges may vary slightly among different laboratories. Talk to your doctor about the meaning of your specific test results.

## What Abnormal Results Mean

An abnormal result means that you have had a high blood sugar level over a period of weeks to months.

If your A1C is above 6.5% and you do not already have diabetes, you may be diagnosed with diabetes.

If your level is above 7% and you have diabetes, it often means that your blood sugar is not well controlled. You and your health care provider should determine your target A1C.

The higher your A1C, the higher the risk that you will develop problems such as:

- [Eye disease](#)
- Heart disease
- [Kidney disease](#)
- [Nerve damage](#)
- Stroke

If your A1C stays high, talk to your doctor about [how to best manage your blood sugar](#).

## Risks

Obtaining a blood sample from some people may be more difficult than from others.

Other risks of having blood drawn are slight, but may include:

- Excessive bleeding
- Fainting or feeling light-headed
- Hematoma (blood accumulating under the skin)
- Infection (a slight risk any time the skin is broken)

## Alternative Names

HbA1C test; Glycated hemoglobin test; Glycosylated hemoglobin test; Hemoglobin glycosylated test; Glycohemoglobin test

## References

[American Diabetes Association. Standards of medical care in diabetes--2014. \*Diabetes Care\*](#)

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