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# Testing for Diabetes and Prediabetes: A1C

## KEY POINTS

- The A1C test—also known as the hemoglobin A1C or HbA1c test—is a simple blood test.
- Your A1C is used to diagnose prediabetes and diabetes, and monitor your progress.
- Find out more about the test, and your A1C goals.

## What does the A1C test measure?

When you check your blood sugar at home, it's a snapshot of a single point in time. But your blood sugar constantly changes, so this doesn't give you a complete picture. The A1C test measures your average blood sugar levels over the past 3 months.

When sugar enters your bloodstream, it attaches to hemoglobin, a protein in your red blood cells. Everybody has some sugar attached to their hemoglobin, but people with higher blood sugar levels have more. The A1C test measures the percentage of your red blood cells that have sugar-coated hemoglobin. Your red blood cells regenerate roughly every 3 months. That's why the A1C test measures your blood sugar levels from that time period.

### A1C is just part of your toolkit

The A1C test is an important tool to understand your blood sugar, but it doesn't replace home monitoring. It's important to also learn how your blood sugar changes throughout the day so you can adjust as you go.

## Getting tested

### Preparing

The A1C test is done in a doctor's office or at a lab. You will have a blood sample drawn from your finger or arm. You don't need to fast before an A1C test, but your doctor may run other tests like cholesterol at the same time that might require fasting.

### Testing

Get an A1C test if you're over age 45. A1C testing is also recommended if you're younger, have overweight, and any other [risk factor for prediabetes and type 2 diabetes](#).

### If your result is normal:

Your doctor will recommend a re-testing schedule based on your age and risk factors.

### If your result shows you have prediabetes:

There's good news. You can take steps right away to reverse prediabetes or to prevent or delay type 2 diabetes. Talk to your doctor about how to get started. They'll likely recommend you repeat your A1C every 1 to 2 years.

### If your result shows you have diabetes:

Your doctor will give you instructions how to manage your condition with lifestyle changes, and may prescribe you medicine. Most people with diabetes have their A1C tested at least twice a year. You may need to check more often based on your management plan or other health conditions. Ask your doctor how often is right for you.

## A1C results

The following ranges are used to diagnose prediabetes and diabetes:

- Normal: below 5.7%
- Prediabetes: 5.7% to 6.4%
- Diabetes: 6.5% or above

When living with diabetes, your A1C also shows how well managed your condition is. Your A1C can estimate your average blood sugar (although it may not account for any spikes or lows):

A1C%	Estimated average glucose mg/dL
6	126
7	154
8	183
9	212
10	240
11	269
12	298

## A1C goals

For most people with diabetes, the **A1C goal is 7% or less**. Your doctor will determine your specific goal based on your full medical history. Higher A1C levels are linked to health complications, so reaching and maintaining your goal is key to living well with diabetes.

With lifestyle changes and medicines (if prescribed), some people with diabetes can reach an A1C below 6.5%. This doesn't mean that their condition went away, but it does usually mean their blood sugar is well managed.

## Things that affect A1C accuracy

Several factors can falsely increase or decrease your A1C result, including:

- Severe anemia.
- Kidney failure.
- Liver disease.
- Certain blood disorders like sickle cell anemia or thalassemia.
- Certain medicines, including opioids and some HIV medications.
- Blood loss or blood transfusions.
- Early or late pregnancy.

Let your doctor know if any of these factors apply to you.

### SOURCES

**CONTENT SOURCE:**  
[National Center for Chronic Disease Prevention and Health Promotion; Diabetes](#)