

How are Diabetes and Prediabetes Diagnosed?

Blood tests are used to diagnosis diabetes and prediabetes because early in the disease, neither diseases have symptoms. Finger stick glucose machines are not accurate enough for diagnosis of diabetes. Diabetes is diagnosed with a blood draw.

Any one of the following tests can be used for diagnosis:

- An **A1C** test
- A **fasting plasma glucose (FPG)** test
- An **oral glucose tolerance test (OGTT)**

Another blood test, the random glucose test, is sometimes used to diagnose diabetes. If the random glucose test measures 200 mg/dl or above, and the individual also shows symptoms of diabetes, then a health care provider may diagnose diabetes.

Some symptoms of diabetes include:

- Increased urination
- Increased thirst
- Unexplained weight loss
- Blurred vision

Any test used to diagnose diabetes requires confirmation with a second measurement unless clear symptoms of diabetes exist.



A1C Test

The A1C test is a blood test that reflects a person's average blood glucose level over the past 3 months. The A1C test is often more convenient for people than other glucose tests because it does not require fasting and can be performed at any time of the day.

The A1C test result is reported as a percentage. The higher the percentage, the higher a person's blood glucose levels have been. A normal A1C level is below 5.7 percent.

An A1C of 5.7 to 6.4 percent indicates prediabetes. People with an A1C below 5.7 percent may still be at risk for diabetes due to his or her risk factors. People with an A1C above 6.0 percent should be considered at very high risk of developing diabetes. An A1c of 6.5 percent is in the diabetes range.

Fasting Glucose Test

The fasting glucose test measures blood glucose in a person who has fasted for at least 8 hours and is most reliable when given in the morning.

People with a fasting glucose level of 100 to 125 mg/dL have prediabetes. A level of 126 mg/dL or above, confirmed by a repeat test, means a person has diabetes.

Oral Glucose Tolerance Test (OGTT)

Research has shown that the OGTT is more sensitive than the fasting glucose test, but it is less convenient to administer. When used to test for diabetes or prediabetes, the OGTT measures blood glucose after a person fasts for at least 8 hours and 2 hours after the person drinks a liquid containing 75 grams of glucose dissolved in water.

If the 2-hour blood glucose level is between 140 and 199 mg/dL, the person has prediabetes. If confirmed by a second test, a 2-hour glucose level of 200 mg/dL or above means a person has diabetes.

Source: Adapted from [National Institute of Diabetes and Digestive and Kidney Diseases](#) (NIDDK), part of the National Institutes of Health.