# 5 Types of Tests Used to Diagnose Diabetes

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## How to Test for Diabetes

Finding out that you have diabetes can be a bit shocking, especially if it is a diagnosis that you are not anticipating. Imagine going to the emergency department for a hacking cough and leaving with a diagnosis of pneumonia, as well as diabetes.

It happens more than you would think. Luckily, there are routine screenings that your healthcare provider can order that easily diagnose you with prediabetes or diabetes before it becomes a bigger issue. So, would you like to know how to test for diabetes? Read on to find out.

### Common Symptoms of Diabetes

Regardless of the type of diabetes, (type 1 diabetes, type 2 diabetes, and gestational diabetes) their symptoms are similar and include:

- Frequent urination (polyuria)
- Frequent thirst (polydipsia)
- Increased hunger (polyphagia)
- Weight loss without trying
- Blurry vision
- Numbness and tingling of the feet
- Fatigue
- Very dry skin
- Frequent infections
- Poor wound healing

Type 2 diabetes can be undetected for months or even years because it can develop slowly; symptoms often develop when blood sugar levels become dangerously high.

Type 1 diabetes typically “hits” much more quickly than type 2 diabetes. When symptoms develop, they are severe and may also include nausea, vomiting, and stomach pains.

Gestational diabetes occurs during pregnancy – typically in the middle of pregnancy. There are rarely any symptoms.

### How Do Doctors Test for Diabetes?

There are several laboratory tests that your healthcare provider may order to test for diabetes.

**1. Hemoglobin A1c**

The hemoglobin A1c measures your blood sugar average for the past two to three months.

Other names for the hemoglobin include:

- A1c
- HbA1c
- Glycated hemoglobin
- Glycosylated hemoglobin

The A1c test essentially reviews your blood sugar levels for the past two to three months and is reported as a percentage; the higher the percentage, the higher your blood sugar levels.

Though it is a fairly accurate test, if you have certain conditions, such as anemia, your A1c test may be inaccurate. In addition, those who are African, Mediterranean, or Southeastern Asian may have A1cs that are falsely high or low.

A normal A1c is below 5.7%. Prediabetes is between 5.7% and 6.4%. Diabetes is 6.5% and above.

**2. Fasting Plasma Glucose (FPG)**

A FPG is exactly what it says – it is a glucose value that is checked after at least eight hours of not consuming food.

Typically, it is best to have an FPG drawn in the morning, as it is easiest to fast overnight when there is no caloric intake. Sips of water are ok.

A normal FPG is 99mg/dl or below. Prediabetes is between 100mg/dl and 125mg/dl. Diabetes is 126mg/dl and above.

**3. Random Plasma Glucose (RPG)**

An RPG can be drawn anytime, therefore it is called “random”. The RPG is often used when diabetes symptoms, such as polyphagia, polydipsia, and polyuria, are present.

These symptoms are considered “classic symptoms” of diabetes and prompt many healthcare providers to order an RPG, whether through a lab draw or a fingerstick with a blood sugar meter.

Diabetes can be diagnosed when a RPG is 200mg/dl or greater.

**4. Glucose Challenge Test**

Most pregnant women are screened for gestational diabetes (GDM) at between 24 and 28 weeks of gestation. Blood is drawn one hour after consuming a highly sugar-sweetened beverage. If blood sugar is greater than 135mg/dl, the oral glucose tolerance test is typically ordered.

**5. Oral Glucose Tolerance Test (OGTT)**

The OGTT is performed after fasting for eight hours. Initially, a fasting lab is drawn. Then, a sugary beverage is consumed. Labs are drawn one hour, two hours, and three hours after consumption of the beverage.

Gestational diabetes can be diagnosed if at least two of the four lab results are elevated. Abnormal results are as follows:

- Fasting – greater than 95mg/dl
- 1 hour – greater than 180mg/dl

- 2 hours - greater than 155mg/dl
- 3 hours – greater than 140mg/dl

**How Are Diabetes Tests Performed?**

Diagnostic tests for diabetes are typically performed by a laboratory draw. The process for a lab draw is simple, though it can be nerve-wracking.

Make sure that you ask beforehand if there are any specific instructions, such as fasting, before getting your lab draw.

The lab draw itself is simple and should only take several minutes. The phlebotomist will typically look at your arms, hands, and wrists to look for a “good” vein in which to draw the blood. They will likely wrap a tight elastic band, called a tourniquet, around your arm. They will cleanse the vein with an alcohol swab, then insert the needle into the vein. Once the phlebotomist is certain they have found the vein, they will draw blood using a syringe connected to tubing or use a Vacutainer to draw blood into the specimen tubes.

One thing is for sure – a blood draw can make even the bravest people nervous! Here are some tips on staying calm:

- Take deep breaths during the blood draw.
- Bring headphones and listen to music or a podcast; this helps to distract you from the blood draw.
- Ask the phlebotomist if there are any ways to minimize discomfort. Certain facilities may use numbing creams.