

# Diabetes Basics

## Staying on Top of Your Condition

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**The risk of atherosclerosis is greater in people with diabetes than those without the disease.**

Diabetes can also more than double your risk for coronary artery disease (CAD), peripheral artery disease (PAD), and stroke.

When you have diabetes, your body is unable to properly convert sugar, starches, and other foods into energy. As a result, plaque builds in arteries more readily in people with diabetes than in people who don't have the disease. This makes it even more important for people with diabetes to also manage their high cholesterol.

### Types of Diabetes

There are two general types of diabetes: type 1 and type 2.

**In type 1 diabetes**, the body's immune system stops the pancreas from producing the insulin the body needs to process glucose. Type 1 diabetes, which is usually diagnosed in children and young adults, is a serious condition, but in general, it can be managed with insulin therapy.

**With type 2 diabetes**, the body does not properly use the insulin it produces. This results in high glucose levels. Eventually, the body cannot produce enough insulin to keep up with its demand. As with type 1, when glucose builds up in the blood instead of going into cells, your body's cells will starve for energy.

### What Causes Diabetes?

While the exact cause of diabetes remains unknown, factors such as genetics, obesity, and an inactive lifestyle can all play a role.

According to the American Diabetes Association (2009), whether you have type 1 or type 2 diabetes, the possible complications can be serious and can include

- Heart disease
- Eye damage and blindness
- Kidney damage
- Nerve damage

#### Did You Know?

In 2006, more than 23 million American adults were estimated to have diabetes. And about 57 million American adults have prediabetes, a condition in which blood glucose levels are higher than normal but not high enough to be called diabetes. Diabetes is more common in African Americans, Hispanics, Native Americans, and Asian Americans/Pacific Islanders, as well as older people. According to the National Cholesterol Education Program, people with type 2 diabetes are at the same risk for coronary events as people without diabetes who already have established heart disease.

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The chart below shows common complications of diabetes and how managing glucose levels can help lower risk.

POTENTIAL COMPLICATIONS	ESTIMATED REDUCTION OF THE RISK OF COMPLICATION
Impaired kidney function	<b>30% to 70%</b> (with better control of blood pressure and blood glucose levels)
Severe vision loss	<b>50% to 60%</b> (with proper screening and treatment with laser therapy)
Amputation	<b>45% to 85%</b> (with implementation of foot care programs that include regular examinations and patient education)
Heart disease and stroke	<b>20% to 50%</b> (with improved control of blood pressure and cholesterol and lipid levels)

Source: Centers for Disease Control and Prevention

## How Is Diabetes Diagnosed?

There are a few different tests that doctors use to diagnose diabetes

- **Fasting plasma glucose test** — This convenient test measures your blood glucose after you have fasted for at least 8 hours. It is used to detect diabetes or prediabetes
- **Oral glucose tolerance test** — This test, which is used to diagnose diabetes or prediabetes, measures your blood glucose after fasting for at least 8 hours and 2 hours after you drink a glucose-containing beverage
- **Casual (random) plasma glucose test** — In this test, your blood glucose is checked no matter when you ate your last meal. This test, along with other symptoms, is used to diagnose diabetes but not prediabetes

Test results that come back positive for diabetes should be confirmed by repeating the fasting plasma glucose test or an oral glucose tolerance test on a different day.

TABLE 1. FASTING PLASMA GLUCOSE TEST

Plasma Glucose Result (mg/dL)	Diagnosis
99 and below	Normal
100 to 125	Prediabetes
126 and above	Diabetes*

\*Confirmed by repeating the test on a different day.

TABLE 2. ORAL GLUCOSE TOLERANCE TEST

2-Hour Plasma Glucose Result (mg/dL)	Diagnosis
139 and below	Normal
140 to 200	Prediabetes
Above 200	Diabetes*

\*Confirmed by repeating the test on a different day.

## The Keys to Treating Diabetes

If you have been diagnosed with prediabetes or diabetes, there are a number of different ways to manage it. Your doctor is your best source for which plan is right for you, so be sure to schedule regular checkups to find out what steps you should take to get your diabetes under control.

As a general guide, here are a few things you can do every day to help lower your blood glucose:

- **Follow a low glycemic diet** — A diet low in sugars and starches and high in fiber can help lower glucose levels
- **Be physically active** — At least 30 minutes of exercise a day, most, if not all, days of the week, can help
- **Take your diabetes medicine** — There are a number of different treatment options available, but they won't work if you don't take them
- **Check your blood glucose regularly** — The only way to know if you are keeping your blood glucose in check is by checking your levels every day as directed by your doctor