

**D**iabetes means that your blood glucose, or blood sugar, is too high.

When food is digested, much of it changes into glucose (or sugar) in your blood.

Glucose is fuel for your body. Your bloodstream carries the glucose to your cells, which use it for energy. Beta cells in your pancreas make insulin to help glucose get into cells. Insulin attaches to each cell and lets glucose inside. Sometimes, your body can't make enough insulin or your cells "resist" insulin and glucose can't enter your cells. When this happens, glucose levels rise in your blood. This is diabetes.

An estimated 20.8 million Americans have diabetes, and many don't even know it. Damage to nerves, eyes, kidneys, heart and blood vessels caused by high blood glucose levels can be prevented or delayed with appropriate treatment and lifestyle changes.

While there is no cure for diabetes, you can still live a healthy, full life.

## What are the types of diabetes?

There are three types of diabetes. Each type happens for a different reason. No type of diabetes is worse. All three cause high glucose levels.

### *Type 1 diabetes*

In type 1 diabetes, your body can't make insulin. Type 1 diabetes can happen at any age, although usually it occurs in children and young adults under age thirty. If you have type 1 diabetes, you need to take insulin every day because your pancreas doesn't produce it.

### *Type 2 diabetes*

In type 2 diabetes, your body can't use insulin properly. It "resists" the action of insulin. It is difficult for glucose to get into your body's cells, so it stays in your blood. Over time, your pancreas makes less insulin. This is why people who have type 2 diabetes may need to take insulin. Type 2 diabetes is most common in adults. However, it's becoming more common in children.

### *Gestational diabetes*

Women need extra insulin when they are pregnant because of hormonal changes. Some women can't make more insulin. Their glucose goes up, and they develop gestational diabetes. After her baby is born, a woman's glucose usually returns to normal. However, her chances of developing type 2 diabetes later on are higher.

## What are the symptoms?

Some people have many symptoms of diabetes, others have none at all. Certain symptoms are more common with type 2 diabetes, while others are more common with type 1.

In type 1 diabetes, symptoms usually include increased thirst, increased hunger, frequent urination and unexplained weight loss.

In type 2 diabetes, the symptoms can be vague, or there may be no symptoms. These symptoms may include blurred vision, cuts and sores that don't heal, dry, itchy skin, infections (or the same infection keeps coming back), and numbness and tingling in hands, legs or feet.

In gestational diabetes, there are no symptoms. All pregnant women need to be tested for diabetes between 24 and 28 weeks of pregnancy. This is especially important for women who are at risk.

## Who is at risk?

The risk factors for type 1 diabetes are uncertain, though family history seems to play a role. The risk factors for type 2 diabetes are:

- Physically inactive
- High blood pressure
- Abnormal blood cholesterol or triglycerides
- Personal history of heart or blood vessel disease, elevated blood glucose, polycystic ovary syndrome or gestational diabetes

- Ethnicity, including African-American, Native American, Hispanic, Asian, Pacific Islander, Native Hawaiian or Alaska Native

- Dark velvety patches on your skin (acanthosis nigricans)

If you have any of these risk factors, discuss diabetes screening with your doctor.

## How is diabetes diagnosed?

Diabetes is diagnosed by measuring the level of glucose in the blood. Having abnormal results on two different days or one high reading with diabetes symptoms may indicate a diagnosis of diabetes.

Blood glucose levels required for diagnosis are:

- 126 mg/dL or higher for a fasting blood glucose test, which is done when you've had nothing but water for at least eight hours.
- 200 mg/dL or higher for a random glucose test, which can be done at any time of day.

## What is the treatment?

The foundation of diabetes treatment is healthy eating and regular activity. You may also need to take medication. The goal of diabetes treatment is to keep blood glucose levels as close to normal as possible.

When you have diabetes, you need to be an active participant in your own care every day. Your lifestyle choices are an essential part of your diabetes treatment plan. Your doctors, nurses, dietitians and psychologists will provide the information, training and support you need for effective self-care.

A food and activity plan is recommended for everyone who has diabetes. Your care team will work with you to develop a treatment plan that may include diabetes medications.

The goals of diabetes treatment are to help you feel better and:

- Keep glucose levels in target.
- Balance your eating habits, activity level and lifestyle.
- Prevent, delay or slow the progression of health problems caused by diabetes.

## Diabetes care schedule

When you see your clinician, be sure these standards of care are followed. Bring this with you to your appointment.

### Check points    How often    Goal

Check points	How often	Goal
A1C	Every 3 months	Less than 7%
Blood pressure	Every 3 months	Less than 130/80
LDL	Yearly	Less than 100 (w/ heart disease, less than 70)
HDL	Yearly	Greater than 40 (consider greater than 50 in women)
Triglyceride	Yearly	Less than 150
Urine protein	Every year	Less than 30
Aspirin use	Daily	If provider recommends
Retinal eye exam	Yearly	Normal
Visual foot exam	Every 3 months	Normal
Complete foot exam	Yearly	Normal
Dental exam	Every 6 months	Normal
Treatment plan review	Every 3 months	Ongoing
Diabetes education	Yearly	Ongoing
Flu vaccine	Yearly	
Pneumonia vaccine	Once at age 65 or older	

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# Diabetes

## What You Need to Know