

# I can tell you about diabetes

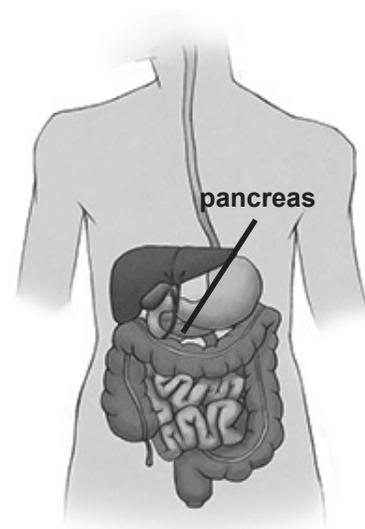
## What is diabetes?

In diabetes the blood has too much **sugar**. Another name for sugar is **glucose**.

## How does the body usually control blood sugar?

We eat food to get energy for our body. Most energy comes from one nutrient: **carbohydrate**. This is found in starchy or sugary foods. Carbohydrates (carbs) are measured in grams.

When we eat these foods, our body's digestive system breaks down the carbohydrate into sugar. The sugar moves from our digestive system into our blood, where it travels all around the body. The sugar needs to move from the blood to the inside of our cells. Inside the cells is where we can make sugar into energy. To do that, we need a hormone called **insulin**. Insulin acts like a key, unlocking the door to the cell so that the sugar can get inside. Insulin is made in the **pancreas**.



**Insulin is made in the pancreas.**

Sugar gets into your blood in two ways:

1. The carbohydrates you eat are turned into sugar by your digestive system.
2. Your liver stores some extra sugar. The liver releases sugar into the blood when you haven't eaten in a while.

Blood sugar levels naturally go up and down a little bit. They do not stay at the exact same level all the time. A healthy pancreas releases insulin only when it needs to, so that the blood sugar level stays fairly steady all day long.

## What is type 1 diabetes?

**Type 1 diabetes** used to be called **juvenile** or **insulin-dependent diabetes**. Type 1 diabetes is usually diagnosed in children and young adults, but it can be diagnosed at any age. About 3 million people in the United States have it.

In type 1 diabetes, the person's body attacks the part of the pancreas that makes insulin. This is called is an **autoimmune disorder**.

After this attack begins, less and less insulin is produced. This prevents sugar from going inside the body's cells, and causes blood sugar levels to go much higher than usual. Eventually, this completely destroys the body's ability to make insulin, leaving the body without any way to get energy out of food that is eaten. Insulin replacement is the only treatment for type 1 diabetes.

## What is type 2 diabetes?

**Type 2 diabetes**, which used to be called **adult-onset** or **non-insulin-dependent diabetes**, is the most common form of diabetes in the United States. It is usually diagnosed in adults, but is sometimes diagnosed in younger people, too.

Type 2 diabetes can happen to anyone, but it is more common in:

- African Americans
- Native Americans
- Hispanic Americans
- Asian Americans
- Pacific Islanders

It is also more common in people who are overweight, have family members with type 2 diabetes, and people who are older.

In type 2 diabetes, the body may not make enough insulin or the insulin that is made does not control the blood sugar levels very well. This is called **insulin resistance**, meaning the cells don't respond to the insulin as well as they usually do. This causes extra sugar to collect in the blood over time. Because type 2 diabetes can develop more slowly, people can have it for years before they know it.

The treatment for type 2 diabetes is different from person to person.

- Some people can control type 2 diabetes by changing their lifestyle. Eating healthy foods and being more active will help the body use its own insulin better.
- Some people have more success controlling type 2 diabetes with medicine.

— Some people who have type 2 diabetes need insulin to help control blood sugar levels. This may be when a person is first diagnosed, in the hospital, or after they have had diabetes for many years.

Some people who make lifestyle changes may be able to stop medicine, but that does not mean the diabetes has been cured. Blood sugar levels will become high again if those healthy habits stop.

## What are the symptoms of diabetes?

The symptoms of diabetes are:

- Hunger
- Frequent urination
- Very thirsty
- Very tired
- Blurry vision
- Weight loss
- Fruity smelling breath
- Trouble breathing
- Infections

## How is diabetes diagnosed?

When someone shows symptoms of diabetes, blood tests can be done to determine the amount of sugar in the blood. If the blood sugar level is higher than normal, diabetes is diagnosed. A lab test called Hemoglobin A1c (or HbA1c) gives an average of your child's blood sugar over the past 3 months.

Sometimes, it is hard to tell which type of diabetes a person has. The doctor may order other blood tests to determine the type. The most common test looks for antibodies. High levels of antibodies show the body has attacked the pancreas.

## Does diabetes ever go away?

At this time, there is no cure for diabetes. Diabetes never goes away naturally. The best we can do is to try to keep blood sugar levels as close to normal as possible. Some people with type 1 diabetes will have a **honeymoon period** soon after they are diagnosed. During this time, it may look as if the diabetes has gone away, but it really has not.

When a person is first diagnosed with type 1 diabetes, the body begins to attack the

pancreas, but it is not finished. That means the pancreas is usually still able to make a little bit of insulin.

Within a few days or weeks after beginning insulin treatment, the pancreas may start back up and release some of its own insulin. Because of this extra insulin, the blood sugar levels may start to go too low, and the doctor may say your child needs to take less insulin. Most people still take some insulin during the honeymoon period, but they may need fewer injections or less insulin.

Unfortunately, the attack on the pancreas cannot be stopped, and in time the body will not make any insulin at all. The honeymoon period can last from 1 week to 2 years. There is no way to tell how long the honeymoon period will last or whether there will be one at all.

Because every child is different, it is important to keep testing the blood sugar levels during the honeymoon period. This information helps the doctor know when to adjust the insulin amount.

### **Now that you've read this:**

- Tell your nurse or doctor what diabetes is. (Check when done.)
- Tell your nurse or doctor what glucose means. (Check when done.)
- Tell your nurse or doctor what type of diabetes your child has.  
(Check when done.)

#### Disclaimer

The information provided at this site is intended to be general information, and is provided for educational purposes only. It is not intended to take the place of examination, treatment, or consultation with a physician. Phoenix Children's Hospital urges you to contact your physician with any questions you may have about a medical condition.