



# Type 1 Diabetes

## WHAT IS DIABETES?

Diabetes is a disease in which there is too much glucose (sugar) in the bloodstream. It occurs when the pancreas, a gland behind the stomach, does not produce enough insulin.

Insulin is the hormone necessary to carry glucose (produced from the foods you eat) from the bloodstream into the body's cells, where it is used for energy. When there is not enough insulin, glucose builds up in the blood, putting people at risk for serious health problems including

- Heart attacks and strokes
- Kidney problems
- Numbness in the feet and sores that don't heal
- Vision problems
- Erectile dysfunction (in men)

You can help prevent or delay the long-term complications of diabetes by keeping blood glucose levels as close to normal as possible.

## DID YOU KNOW?

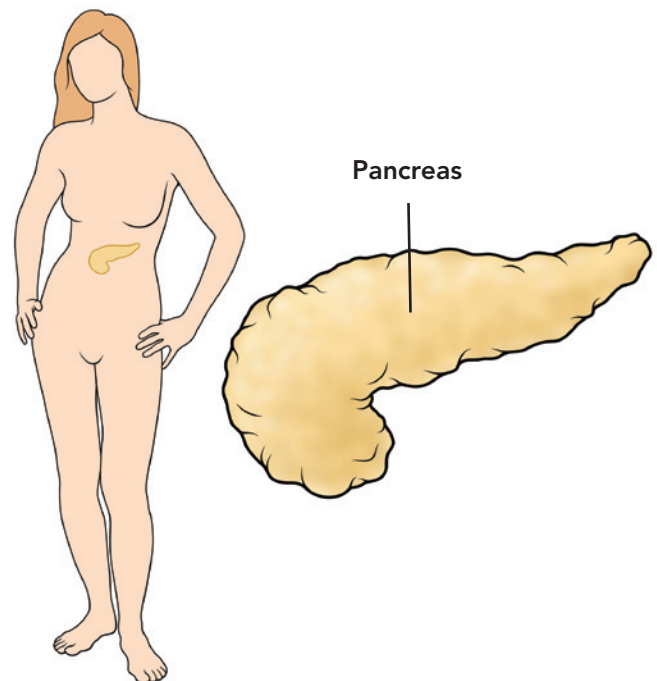
**Ten to 15 percent of people with type 1 diabetes have a family history of this disease.**

## HOW DOES TYPE 1 DIABETES DIFFER FROM TYPE 2 DIABETES?

Type 1 diabetes, sometimes called insulin-dependent diabetes and juvenile diabetes, can develop at any age but most often occurs in children, teens, and young adults. In type 1 diabetes, a person's pancreas produces little or no insulin, so insulin treatment is needed for a lifetime.

The causes of type 1 diabetes are not fully known. In most cases, the body's immune system attacks and destroys the part of the pancreas that produces insulin. Because type 1 is an autoimmune disease, people with other autoimmune conditions, such as Hashimoto's disease or Addison's disease, are more likely to develop type 1 diabetes.

Type 2 diabetes, sometimes called adult-onset diabetes, usually develops in adulthood but can sometimes appear in overweight children and teens. With type 2 diabetes, the pancreas produces insulin, but either there is not enough or the body can't use it effectively. Insulin treatment isn't always necessary, as it is with type 1. Type 2 diabetes is more common than type 1 and is most often linked to being overweight or obese.



## SYMPTOMS OF TYPE 1 DIABETES

- Increased thirst
- Increased urination
- Constant hunger
- Weight loss
- Blurred vision
- Feeling tired all the time

The symptoms of type 1 diabetes can look like other conditions or medical problems. If you (or your child) have these symptoms, talk with your doctor as soon as possible.

## HOW IS TYPE 1 DIABETES DIAGNOSED AND TREATED?

Your doctor will use blood tests to diagnose diabetes. A blood glucose level above 125 mg/dL after fasting overnight or above 200 mg/dL after eating may indicate diabetes. Your doctor may also take a medical history and order further blood tests to rule out type 2 diabetes.

People with type 1 diabetes must have daily injections of insulin to keep a normal level of glucose in the blood. Blood glucose is kept under the best control with three or more injections per day, or when insulin is delivered throughout the day with an insulin pump. A healthy diet, exercise, and regular monitoring of blood glucose levels are also important to manage diabetes.

## HOW DO YOU MONITOR BLOOD SUGAR LEVELS?

To monitor your blood glucose, you first stick your finger or forearm with a special lancet (a needle) to get a drop of blood, which you put on a chemically-treated paper strip. Then you insert the strip into a small computerized machine (blood glucose meter) that reads the blood glucose from the strip. Your blood glucose level shows up as a number on a screen. You can use these blood glucose readings to adjust the doses of insulin that you take every day.

Your doctor or diabetes educator will discuss the various types of available strips and meters and prescribe one for you. They will also talk with you about how often to check your glucose.

A newer technology called continuous glucose monitoring measures glucose levels every few minutes throughout the day and night. It uses a device called a sensor that is inserted under the skin. The sensor then transmits information about glucose levels to a small monitor (about the size of a cellphone). People on insulin pumps are most likely to use this system.

## WHEN SHOULD YOU SEE YOUR DOCTOR?

If you or your child have symptoms or a family history of diabetes, ask your doctor if testing is needed. Having diabetes requires daily care. All general physicians (family doctors, internists, primary care physicians) can diagnose and treat diabetes. Some people see an endocrinologist, a specialist in diabetes and other hormone-related conditions, for treatment.

## Questions to ask your doctor

- What can I (or my child) do to keep blood glucose level on target?
- What should I (or my child) eat?
- Which medicines do I (or my child) need?
- What type of exercise is best for me (or my child)?
- How often should I (or my child) check blood glucose levels?
- Should I (or my child) see a diabetes educator?

## RESOURCES

- Find-an-Endocrinologist: [www.hormone.org](http://www.hormone.org) or call 1-800-HORMONE (1-800-467-6663)
- Find a diabetes educator (American Association of Diabetes Educators): [www.diabeteseducator.org/DiabetesEducation/Find.html](http://www.diabeteseducator.org/DiabetesEducation/Find.html)
- Hormone Health Network diabetes information: [www.hormone.org/diabetes](http://www.hormone.org/diabetes)
- National Diabetes Information Clearinghouse (National Institutes of Health): [diabetes.niddk.nih.gov/](http://diabetes.niddk.nih.gov/)
- The American Diabetes Association: [www.diabetes.org](http://www.diabetes.org)
- Mayo Clinic: [www.mayoclinic.com/health/diabetes/DS01121](http://www.mayoclinic.com/health/diabetes/DS01121)

### EDITORS

Silvio E. Inzucchi, MD  
Mark E. Molitch, MD

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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society ([www.endo-society.org](http://www.endo-society.org)). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at [www.hormone.org/Spanish](http://www.hormone.org/Spanish).

Type 1 Diabetes Fact Sheet



[www.hormone.org](http://www.hormone.org)