

## Type 1 Diabetes

### WHAT IS DIABETES?

Diabetes is a problem with your body that causes blood glucose (sugar) levels to rise higher than normal. This is also called hyperglycemia.

When you eat your body breaks food down into glucose and sends it into the blood. Insulin then helps move the glucose from the blood into your cells. When glucose enters your cells, it is either used as fuel for energy right away or stored for later use. In a person with diabetes, there is a problem with insulin. But, not everyone with diabetes has the same problem.

There are different types of diabetes – type 1, type 2, and a condition called gestational diabetes, which happens during pregnancy. If you have diabetes, your body either doesn't make enough insulin, it can't use the insulin it does make very well, or both.

### WHAT IS TYPE 1 DIABETES?

In type 1 diabetes, your immune system mistakenly destroys the cells in your pancreas that make insulin. Your body treats these cells as invaders and destroys them. This can happen over a few weeks, months, or years.

When enough beta cells are destroyed, your pancreas stops making insulin, or makes too little insulin. Because the pancreas does not make insulin, insulin needs to be replaced. Insulin does not come in a pill. People with type 1 diabetes take insulin by injection with a syringe, an insulin pen, or an insulin pump. Without insulin, your blood glucose rises and is higher than normal, which is called hyperglycemia.

Type 1 diabetes affects about 5% of people in the United States with diabetes. In the past type 1 diabetes was called juvenile diabetes or insulin-dependent diabetes. It's usually first diagnosed in young people but it can occur at any age. Type 1 diabetes is much less common than type 2 diabetes.

### HOW IS TYPE 1 DIFFERENT FROM TYPE 2?

In type 2 diabetes, your body does not use insulin properly. This is called insulin resistance. At first, the beta-cells make extra insulin to make up for it. But, over time your pancreas isn't able to keep up and can't make enough insulin to keep your blood glucose levels normal. Type 2 diabetes can be treated with oral medications, and/or insulin. Type 1 diabetes is always treated with insulin.

### WHAT CAUSES TYPE 1 DIABETES?

Scientists aren't sure what causes type 1 diabetes. It is not contagious and it is not caused by eating sugar. Research is under way to find the exact causes of type 1 diabetes and how it might be prevented.

## WHAT TREATMENTS ARE USED FOR TYPE 1 DIABETES?

The two goals of diabetes treatment are to make sure you feel well day-to-day and to prevent or delay long-term health problems. The best way to reach those goals is by:

- taking insulin
- planning your meals—choosing what, how much, and when to eat
- being physically active

## HOW WILL I KNOW IF MY DIABETES TREATMENT IS WORKING?

Getting an A1C test at least twice a year helps you and your health care team keep track of how well you are controlling your blood glucose levels. A1C is part of your diabetes ABCs, which will tell you if your overall diabetes treatment is working. The ABCs of diabetes are:

### **A: A1C or estimated average glucose (eAG)**

Your A1C check tells you your average blood glucose for the past 2 to 3 months. It's the blood check "with a memory." Your health care provider may call this your estimated average glucose or eAG. The eAG gives your A1C in the same units (mg/dl) as the glucose meter you use at home.

### **B: blood pressure**

Your blood pressure numbers tell you the force of blood inside your blood vessels. When your blood pressure is high, your heart has to work harder.

### **C: cholesterol levels**

Your cholesterol numbers tell you about the amount of fat in your blood. One type, LDL cholesterol, can clog your blood vessels and lead to heart disease.

## HOW DOES DIABETES AFFECT YOU DAILY?

Diabetes can affect how you feel each day. If your blood glucose level is too high or too low (hypoglycemia), you may not feel well. Keeping your blood glucose in a target range will help you feel your best.

People with type 1 diabetes must take insulin several times a day to keep their blood glucose under control. You also need to check blood glucose regularly and use the information to adjust the amount of insulin you are taking. Talk with your health care team about how and when to check your blood glucose.

While most of the day-to-day care of diabetes is up to you, your health care team is there to help you.

More handouts about this and other topics can be found at <http://professional.diabetes.org/PatientEd>

For more information visit [diabetes.org](http://diabetes.org) or call 1-800-DIABETES