

# What Is Type 1 Diabetes?

If you have type 1 diabetes, your pancreas doesn't make insulin or makes very little insulin. Insulin is a hormone that helps blood sugar enter the cells in your body where it can be used for energy. Without insulin, blood sugar can't get into cells and builds up in the bloodstream. High blood sugar is damaging to the body and causes many of the symptoms and complications of diabetes.

Type 1 diabetes (previously called insulin-dependent or juvenile diabetes) is usually diagnosed in children, teens, and young adults, but it can develop at any age.

Type 1 diabetes is less common than type 2—approximately 5-10% of people with diabetes have type 1. Currently, no one knows how to prevent type 1 diabetes, but it can be managed by following your



People of all ages can develop type 1 diabetes.

doctor's recommendations for living a healthy lifestyle, managing your blood sugar, getting regular health checkups, and getting diabetes self-management education and support.

#### For Parents

If your child has type 1 diabetes—especially a young child—you'll be involved in diabetes care on a day-to-day basis, from serving healthy foods to giving insulin injections to watching for and treating hypoglycemia (low blood sugar). You'll also need to stay in close contact with your child's health care team; they will help you understand the treatment plan and how to help your child stay healthy.

Much of the information that follows applies to children as well as adults, and you can also visit JDRF's T1D Resources page of for comprehensive information about managing your child's type 1 diabetes.

# What Causes Type 1 Diabetes?

Type 1 diabetes is thought to be caused by an autoimmune reaction (the body attacks itself by mistake) that destroys the cells in the pancreas that make insulin, called beta cells. This process can go on for months or years before any symptoms appear.

Some people have certain genes (traits passed on from parent to child) that make them more likely to develop type 1 diabetes, though many won't go on to have type 1 diabetes even if they have the genes. Being exposed to a trigger in the environment, such as a virus, is also thought to play a part in developing type 1 diabetes. Diet and lifestyle habits don't cause type 1 diabetes.

### Symptoms and Risk Factors

It can take months or years for enough beta cells to be destroyed before symptoms of type 1 diabetes are noticed. Type 1 diabetes symptoms can develop in just a few weeks or months. Once symptoms appear, they can be severe.

Some type 1 diabetes symptoms are similar to symptoms of other health conditions. Don't guess—if you think you could have type 1 diabetes, see your doctor right away to get your blood sugar tested. Untreated diabetes can lead to very serious—even fatal—health problems.

Risk factors for type 1 diabetes are not as clear as for prediabetes and type 2 diabetes, though family history is known to play a part.

# Testing for Type 1 Diabetes

A simple blood test will let you know if you have diabetes. If you've gotten your blood sugar tested at a health fair or pharmacy, follow up at a clinic or doctor's office to make sure the results are accurate.

If your doctor thinks you have type 1 diabetes, your blood may also be tested for autoantibodies (substances that indicate your body is attacking itself) that are often present with type 1 diabetes but not with type 2. You may have your urine tested for ketones (produced when your body burns fat for energy), which also indicate type 1 diabetes instead of type 2.

### Managing Diabetes

Unlike many health conditions, diabetes is managed mostly by you, with support from your health care team (including your primary care doctor, foot doctor, dentist, eye doctor, registered dietitian nutritionist, diabetes educator, and pharmacist), family, teachers, and other important people in your life. Managing diabetes can be challenging, but everything you do to improve your health is worth it!

If you have type 1 diabetes, you'll need to take insulin shots (or wear an insulin pump) every day to manage your blood sugar levels and get the energy your body needs. Insulin can't be taken as a pill because the acid in your stomach would destroy it before it could get into your bloodstream. Your doctor will work with you to figure out the most effective type and dosage of insulin for you.

You'll also need to check your blood sugar regularly. Ask your doctor how often you should check it and what your target blood sugar levels should be. Keeping your blood sugar levels as close to target as possible will help you prevent or delay diabetes-related complications.

Stress is a part of life, but it can make managing diabetes harder, including managing your blood sugar levels and dealing with daily diabetes care. Regular physical activity, getting enough sleep, and relaxation exercises can help. Talk to your doctor and diabetes educator about these and other ways you can manage stress.

Healthy lifestyle habits are really important too:

- Making healthy food choices
- Being physically active
- Controlling your blood pressure
- Controlling your cholesterol

Make regular appointments with your health care team to be sure you're on track with your treatment plan and to get help with new ideas and strategies if needed.

# Hypoglycemia and Diabetic Ketoacidosis

These 2 conditions are common complications of diabetes, and you'll need to know how to handle them. Meet with your doctor for step-by-step instructions. You may want to bring a family member with you to the appointment so they learn the steps too.

Hypoglycemia (low blood sugar) can happen quickly and needs to be treated quickly. It's most often caused by too much insulin, waiting too long for a meal or snack, not eating enough, or getting extra physical activity.

If you have low blood sugar several times a week, talk to your doctor to see if your treatment needs to be changed.

**Diabetic ketoacidosis** (DKA) is a serious complication of diabetes that can be life-threatening. DKA develops when your body doesn't have enough insulin to allow blood sugar into your cells for use as energy. Very high blood sugar and low insulin levels lead to DKA. The two most common causes are illness and missing insulin shots. Talk with your doctor and make sure you understand how you can prevent DKA and how to treat it if needed.

#### Get Diabetes Education

Whether you just got diagnosed with type 1 diabetes or have had it for some time, meeting with a diabetes educator is a great way to get support and guidance, including how to:

- Develop and stick to a healthy eating and activity plan
- Test your blood sugar and keep a record of the results
- Recognize the signs of high or low blood sugar and what to do about it
- Give yourself insulin by syringe, pen, or pump
- Monitor your feet, skin, and eyes to catch problems early
- Buy diabetes supplies and store them properly
- Manage stress and deal with daily diabetes care

Ask your doctor about diabetes self-management education and support services and to recommend a diabetes educator. You can also search the Association of Diabetes Care & Education Specialists' (ADCES) nationwide directory for a list of programs in your community.

## **Get Support**

Tap into online diabetes communities for encouragement, insights, and support. The American Diabetes Association's Community page and the JDRF's TypeOneNation are great ways to connect with others who share your experience.

#### Learn More

- Type 1 Diabetes Resources and Support from JDRF
- Living With Diabetes
- Just Diagnosed With Type 1 Diabetes

- Learn About Diabetic Ketoacidosis
- 4 Ways To Take Insulin
- Making the Leap From Type 1 Teen to Adult

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