

Type 1 Diabetes: What You Need to Know

Type 1 diabetes is a chronic disease that causes a person's blood sugar levels to become too high. In this handout, you will learn the causes and symptoms of Type 1 diabetes. You will also learn how doctors and treat the disease.

WHAT IS TYPE 1 DIABETES?

Type 1 diabetes is a chronic (lifelong) disease that causes a person's blood **glucose** (blood sugar) levels to become too high. In people with Type 1 diabetes, their bodies do not make hormones called insulin and glucagon to keep their blood sugar levels in a normal range.

HOW COMMON IS TYPE 1 DIABETES?

Type 1 diabetes is diagnosed in ~18,000 children and teens under age 20 every year. It is most common in non-Hispanic white children and teens under age 20.

WHAT ARE THE SYMPTOMS OF TYPE 1 DIABETES?

- Increased thirst
- Urinating very often
- Bed-wetting in children who previously did not wet the bed during the night
- Extreme hunger
- Unintended (not on purpose) weight loss
- Irritability and other mood changes
- Fatigue and weakness
- Blurred vision
- Frequent yeast infections

WHAT ARE THE SYMPTOMS OF TYPE 1 DIABETES? (CONTINUED)

- **Diabetic ketoacidosis (DKA).** This is a serious condition that causes high levels of **ketones**, or acids, in the blood. The body makes ketones when it breaks down fat and muscle for energy instead of sugar. This usually happens when people do not eat for a long time. It can also happen if your child's body does not make enough insulin. Signs of DKA, a serious complication of poorly controlled Type 1 diabetes, include abdominal (belly area) pain, vomiting, difficulty breathing and dehydration (losing fluids).

HOW IS TYPE 1 DIABETES DIAGNOSED?

Doctors will test for Type 1 diabetes if your child has symptoms of the condition. A blood test can check your child's blood sugar levels. In some cases, your child might also have high levels of glucose in the urine. This means your child might have diabetes.

HOW DO DOCTORS TREAT TYPE 1 DIABETES?

Children with Type 1 diabetes need to take **insulin** every day to keep their blood sugar levels within a normal range. Insulin comes as an injection or can be given by an insulin pump that gives insulin through a small needle under the skin.

Children with Type 1 diabetes who use injections usually take one or two injections of long-acting insulin at specific times in the day, and short acting insulin at other times of the day. Children who use only a pump use just one kind of insulin which can give several doses of insulin during the day. The doses of short acting insulin depend on your child's blood sugar at that time of the day.

**More on treatment for Type 1 diabetes
on the back >>>**

HOW DO DOCTORS TREAT TYPE 1 DIABETES?

Children with Type 1 diabetes also need to check their blood sugar levels throughout the day. This is done by testing a drop of blood in a blood glucose meter or wearing a **continuous glucose monitor (CGM)**. A CGM is a device worn on the body throughout the day. It checks blood sugar levels automatically without the need to prick your child's finger many times. Some of these devices (insulin pump and CGM) can connect with each other. This is called a **sensor-augmented pump**. Your diabetes team at MassGeneral Hospital for Children will provide you with information regarding diabetes technology and sign you up for the insulin pump class, if you are interested.

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