

# Type 1 Diabetes in Children

*What Parents and Guardians  
Should Know*

**Type 1 diabetes mellitus is one of the most common childhood chronic conditions. In type 1 diabetes, the pancreas does not make or makes very little insulin. Insulin is a hormone that helps blood glucose (blood sugar) enter the cells in the body for use as energy.**

Without insulin, blood glucose can't enter the cells so it builds up in the bloodstream. This causes high blood glucose (hyperglycemia). Over time, high blood glucose damages the body and can lead to serious problems if not treated. Treatment includes replacing the insulin that the body needs, eating the right foods, and physical activity.

## What causes type 1 diabetes?

Type 1 diabetes is thought to be caused by an autoimmune reaction where the body's immune system mistakenly destroys the cells in the pancreas that make insulin, called beta cells. The body produces autoantibodies, which are proteins that appear in the blood when type 1 diabetes begins. This process can go on for months or years before there are any symptoms.



## TYPE 1 DIABETES PROGRESSES IN THREE (3) STAGES:

**Stage 1:** The immune system has started attacking insulin-making beta cells. Two (2) or more specific autoantibodies are present. Blood glucose levels are normal and there are no symptoms.

**Stage 2:** The immune system continues to attack beta cells. Two (2) or more specific autoantibodies are present. Blood glucose levels are now higher or lower than normal, but there are still no symptoms.

**Stage 3:** Too many beta cells are damaged and the body can't make enough insulin. Blood glucose levels are much higher than normal and symptoms of high blood glucose are present. Potentially life-threatening complications may happen without treatment.

## Who is at risk of type 1 diabetes?

Most of the time, type 1 diabetes is diagnosed in children, teens, and young adults, but it can develop at any age. People with a parent, brother, or sister with type 1 diabetes have a fifteen (15) times greater risk of developing this condition. However, most people diagnosed with type 1 diabetes do not have a family history.

## How is type 1 diabetes diagnosed in children?

If your child has symptoms of diabetes, let their health care provider know. Your child may get blood tests that determine if the blood glucose is high and a urine test to check for ketones. These are acids that build up in the body when there is not enough insulin. Your child may also get an A1C test. This test gives information about the average amount of glucose in the blood over the last three (3) months. A high A1C result can also be used to diagnose diabetes.

## Can type 1 diabetes be detected early?

The American Diabetes Association (ADA) recommends that people, including children, who have a family member with type 1 diabetes get regular screening. Screening can detect type 1 diabetes in the early stages (stages 1 and 2) before symptoms begin. Screening involves a blood test that looks for the autoantibodies that attack the insulin-producing beta cells. People with these autoantibodies may be in the earliest stages of type 1 diabetes.

Detecting type 1 diabetes early may help to lower the risk of diabetic ketoacidosis (DKA), a potentially life-threatening complication. For some people in the early stages, there is a medication that may be able to delay the onset of type 1 diabetes. Talk to your child's health care provider about screening if there is a family history of type 1 diabetes.

## What else should I know about type 1 diabetes?

Managing type 1 diabetes takes work, but diabetes is very treatable. If your child is diagnosed with type 1 diabetes or is found to be in the early stages, a diabetes health care team will support you. They will provide you with information and tools to manage the condition and help your child live a healthy life. It is very important that your child follow up as recommended with your health care providers.

### Resources for Parents/Guardians

American Diabetes Association, Understanding Type 1 Diabetes: <https://professional.diabetes.org/sites/dpro/files/2024-04/understandingtype1diabetes.pdf>

Breakthrough T1D, Breakthrough T1D Early Detection: <https://www.breakthrought1d.org/early-detection/>

Centers for Disease Control and Prevention, About Type 1 Diabetes: <https://www.cdc.gov/diabetes/about/about-type-1-diabetes.html>

### References

American Diabetes Association Professional Practice Committee (2022). 2. Classification and Diagnosis of Diabetes: Standards of Medical Care in Diabetes-2022. *Diabetes care*, 45(Suppl 1), S17–S38. <https://doi.org/10.2337/dc22-S002>

American Diabetes Association Professional Practice Committee (2024). 3. Prevention or Delay of Diabetes and Associated Comorbidities: Standards of Care in Diabetes-2024. *Diabetes care*, 47(Suppl 1), S43–S51. <https://doi.org/10.2337/dc24-S003>

## Common symptoms of type 1 diabetes in children include:

Increased thirst

Urinating often

*(a baby may need more diaper changes, or a toilet-trained child may start wetting their pants or bed)*

Feeling very hungry

Weight loss, even though a child is eating more

Blurry vision

Extreme fatigue or feeling tired

Irritability or mood changes

Repeated yeast infections