

Type 1 Diabetes Information

Type 1 diabetes in children is an autoimmune disease that can be fatal if untreated, and the guidance provided in this information sheet is intended to raise awareness about this disease.

Type 1 diabetes usually develops in children and young adults but can occur at any age

- According to the U.S. Centers for Disease Control and Prevention (CDC), cases of type 1 diabetes in youth increased nationally from 187,000 in 2018 to 244,000 in 2019, representing an increase of 25 per 10,000 youths to 35 per 10,000 youths, respectively.
- The peak age of diagnosis of type 1 diabetes is 13-14 years, but diagnosis can also occur much earlier or later in life.

Type 1 diabetes affects insulin production

- As a normal function, the body turns the carbohydrates in food into glucose (blood sugar), the basic fuel for the body's cells.
- The pancreas makes insulin, a hormone that moves glucose from the blood into the cells.
- In type 1 diabetes, the body's pancreas stops making insulin, and blood glucose levels rise.
- Over time, glucose can reach dangerously high levels in the blood, which is called hyperglycemia.
- Untreated hyperglycemia can result in diabetic ketoacidosis (DKA), which is a life-threatening complication of diabetes.

Warning Signs and Symptoms

Warning signs and symptoms of type 1 diabetes in children develop quickly, in a few weeks or months, and can be severe. If your child displays the warning signs below, contact your child's primary health care provider or pediatrician for a consultation to determine if screening your child for type 1 diabetes is appropriate:

- Increased thirst
- Increased urination, including bed-wetting after toilet training
- Increased hunger, even after eating
- Unexplained weight loss
- Feeling very tired
- Blurred vision
- Very dry skin
- Slow healing of sores or cuts
- Moodiness, restlessness, irritability, or behavior changes

DKA is a complication of untreated type 1 diabetes. DKA is a medical emergency. Symptoms include:

- Fruity breath
- Dry/flushed skin
- Nausea
- Vomiting
- Stomach pains
- Trouble breathing
- Confusion

Risk Factor

Researchers do not completely understand why some people develop type 1 diabetes and others do not; however, having a family history of type 1 diabetes can increase the likelihood of developing type 1 diabetes. Other factors may play a role in developing type 1 diabetes, including environmental triggers such as viruses. Type 1 diabetes is not caused by diet or lifestyle choices.

Screening Tests

- Glycated hemoglobin (A1C) test. A blood test measures the average blood sugar level over two to three months. An A1C level of 6.5 percent or higher on two separate tests indicates diabetes.
- Random (non-fasting) blood sugar test. A blood sample is taken at a random time. A random blood sugar level of 200 milligrams per deciliter (mg/dL) or higher suggests diabetes. This test must be confirmed with a fasting blood glucose test.
- Fasting blood sugar test. A blood sample is taken after an overnight fast. A fasting blood sugar level of less than 100 mg/dL is normal. A level of 100 to 125 mg/dL is considered pre-diabetes. A level of 126 mg/dL or higher on two separate tests indicates diabetes.
- Oral glucose tolerance test. A test measuring the fasting blood sugar level after an overnight fast with periodic testing for the next several hours after drinking a sugary liquid. A reading of more than 200 mg/dL after two hours indicates diabetes.

Treatments

There are no known ways to prevent type 1 diabetes. Once type 1 diabetes develops, medication is the only treatment. If your child is diagnosed with type 1 diabetes, their health care provider will be able to help develop a treatment plan. Your child's health care provider may refer your child to an endocrinologist, a doctor specializing in the endocrine system and its disorders, such as diabetes.

Contact your student's school nurse, school administrator, or health care provider if you have questions.

References:

[Center for disease Control and Prevention](#)

[Mayo Clinic](#)

[Kids Health](#)

[National Library of Medicine and National Institutes of Health's MedLine](#)