

WHAT PARENTS NEED TO KNOW

Screening for Type 1 Diabetes

Type 1 diabetes is a lifelong autoimmune disease in which the body's immune system mistakenly targets and attacks the insulin-producing beta cells in the pancreas. Insulin is essential for moving sugar from the bloodstream into cells for energy. As these cells are destroyed, the body can no longer produce enough insulin, causing blood sugar levels to rise and increasing the risk of serious, potentially life-threatening complications.

Type 1 is not the same as type 2 diabetes, which is a metabolic disease that can be frequently managed by lifestyle changes and medication. Type 1 diabetes requires insulin to avoid life-threatening complications.

STAGES OF TYPE 1 DIABETES

Type 1 diabetes is detectable as soon as autoantibodies (AABs) are found in the blood. AABs are proteins produced by the immune system in an autoimmune attack of the beta cells in the pancreas. If a person has two or more autoantibodies, they are likely to develop type 1 diabetes. Type 1 diabetes develops in three stages, with autoimmune activity beginning months to years before a diagnosis. As the disease progresses through its stages, beta cells are lost and cannot be replaced. When fewer beta cells are available to make insulin, the body needs insulin treatment to help do the job those cells once did.

STAGE 1

- 2 or more AABs detected in blood
- Normal blood sugar levels
- No symptoms

STAGE 2

- 2 or more AABs detected in blood
- Blood sugar levels begin to rise
- No symptoms

STAGE 3

- Significant beta cell loss and insulin dependence
- High blood sugar
- Visible symptoms

RISK FACTORS

Type 1 diabetes can affect anyone, at any age. Risk factors include:

- Individuals with another autoimmune condition (e.g., celiac disease, Hashimoto's disease, or Graves' disease)
- Having a parent, sibling, or child with type 1 diabetes increases your risk by up to 15 times, however about 90% of people diagnosed have no family history

SYMPTOMS OF TYPE 1 DIABETES

- Irritability/behavioral changes
- Increased thirst or hunger
- Increased urination/bedwetting
- Unexplained weight loss
- Fruity-smelling breath
- Blurred vision
- Fatigue

BENEFITS OF EARLY SCREENING

Autoantibody screening can detect type 1 diabetes in stage 1 or 2 of the disease, before symptoms develop. Early detection can help families:

- Reduce the risk of life-threatening complications from diabetic ketoacidosis and hospitalization
- Better plan and prepare for a potential diagnosis
- Preserve remaining beta cell function
- Explore clinical trials or therapies that may delay the onset

PRESERVING BETA CELLS

Many people still have some working beta cells when they are diagnosed with type 1 diabetes. Preserving even a small number of working beta cells can:

- Help your body continue making some of its own insulin
- Keep blood sugar levels closer to a healthy range
- Lower the chance of a serious diabetes emergency, such as diabetic ketoacidosis
- Help protect the health of your eyes, kidneys, and nerves
- Make diabetes easier to manage

UNDERSTANDING SCREENING RESULTS

○ **NEGATIVE** (0-1 autoantibodies)

If your child is under the age of 15, you may consider having them rescreened every year.

○ **POSITIVE** (2 or more autoantibodies)

This indicates that type 1 diabetes early stages have begun.

Talk to your child's health care provider about confirmatory testing, establishing a monitoring plan, and options for management.

HOW TO GET YOUR CHILD SCREENED

There are several options for type 1 diabetes screening – all done through a simple blood test. Learn more about what option may be right for you by talking to your health care provider:

- Request a blood test at their office or ask for a referral to get tested at a participating lab in your area, such as Labcorp or Quest Diagnostics
- Online Ordering: Direct-to-clinic or at-home test kits ordered online through a vendor such as Enable Biosciences
- [TrialNet.org](https://www.trialnet.org)
Free risk diabetes testing for family members of people with T1D to find if they are at risk of diabetes early.
 - For people 2-45 years old who have a parent, brother/sister, or child with type 1 diabetes
 - For people 2-20 years old who have an aunt/uncle, cousin, grandparent, niece/nephew, or half-brother/sister with type 1 diabetes, lab or at-home tests are available
 - For people 2-45 years old with at least 1 positive autoantibody found at an outside lab
- [AskHealth.org](https://www.askhealth.org)
Free screening for adults and children (age 1 and older), through the screening site or by receipt of an at-home test kit



Learn more about diabetes and resources for assistance at
FloridaHealth.gov/Diabetes