

Type 1 Diabetes Screening



National
Association of
School Nurses

Type 1 diabetes (T1D) is a lifelong autoimmune disease that attacks healthy insulin-producing cells in the pancreas needed to regulate blood sugar.¹ Without insulin, blood sugar cannot get into cells and builds up in the bloodstream, which is damaging to the body.²

Overview

T1D develops in three stages. Today, most people are not diagnosed until Stage 3, when symptoms appear, blood sugar is high and insulin dependence begins.

Benefits of T1D Screening

Risk for T1D is detectable in Stages 1 and 2 as soon as proteins called autoantibodies start to attack healthy cells in the pancreas. This may be years before a person begins experiencing symptoms.

Early identification through screening can help individuals to:

- Reduce risk of life-threatening complications and hospitalization
- Better plan for and manage potential diagnosis
- Potentially participate in research trials to advance management of the disease

Screening can also significantly reduce the incidence of diabetic ketoacidosis (DKA), a serious complication of T1D, among those newly diagnosed.¹

Who Should Get Screened?

Talk to your healthcare provider to learn more.

T1D can affect people of all ages. Family history is the highest risk factor – having a parent, sibling, or child with T1D increases your risk of developing T1D by up to 15 times.³

While those with a family history of T1D present a greater risk for developing the disease, approximately 90% of people diagnosed with T1D have no family history at all.³

Accessing T1D Screenings

There are several screening options – all done through a blood test to identify diabetes-related autoantibodies:

- Commercial Labs: Local commercial lab, such as LabCorp or Quest Diagnostics⁴
- TrialNet: TrialNet location, event or health fair – or test kit to use at home and bring to commercial labs⁴
- Autoimmunity Screening for Kids (ASK): Free screening available to U.S. residents aged 1+ with or without a family history of T1D – through Barbara Davis Center for Diabetes and at-home screening kits^{5,6}

If you choose to conduct autoantibody screening at your healthcare provider's office or a local lab, JDRF suggests providing your healthcare provider with the following lab test information:⁷

LABS TO ORDER (4)

Insulin Autoantibody (IAA)-CPT 86337

Glutamic Acid Decarboxylase (GAD) Autoantibody-CPT 86341

Islet Antigen 2 (IA-2) Autoantibody-CPT 86341

Zinc Transporter 8 (ZnT8) Autoantibody-CPT 86341

RELATED DIAGNOSIS CODES

Z83.3 - Family history of diabetes

R73.9 - Hyperglycemia, unspecified

Z13.1 - Screening for diabetes mellitus

TALK YOUR CHILD'S HEALTHCARE PROVIDER ABOUT WHAT OPTION MAY BE RIGHT FOR THEM.

**This is not an exhaustive list of screening options. Inclusion on this list does not imply an endorsement of a particular laboratory or screening method.*

What to Do With My Results?

NEGATIVE (0-1 autoantibodies): If your child is under the age of 15, you may consider having them rescreened every year.

POSTIVE (2 or more autoantibodies): Talk to your child's healthcare provider about confirmatory testing, establishing a monitoring plan, and options for management.

1. JDRF. (n.d.) T1D Basics. <https://www.jdrf.org/t1d-resources/about/>

2. Centers for Disease Control and Prevention. (2024, May 15). About Type 1 Diabetes. <https://www.cdc.gov/diabetes/about/about-type-1-diabetes.html>

3. Sims, E.K., Besser, R.E.J., Dayan, C., Rasmussen, C.G., Greenbaum, C., Griffin, K.J., Hagopian, W., Knip, M., Long, A.E., Martin, F., Mathieu, C., Frewers, M., Steck, A.K., Wentworth, J.M., Rich, S.S., Kordonouri, O., Ziegler, A.-G., Herold, K.C., (2022). Screening for Type 1 Diabetes in the General Population: A Status Report and Perspective. *Diabetes Care* 45(4): pp.610-623. <https://doi.org/10.2337/db20-0054>

4. Scheiner, G., Weiner, S.M., Kruger, D.F., & Pettus, J.H. (2022). Screening for Type 1 Diabetes: Role of the Diabetes Care and Education Specialist. *ADCES in Practice*, 10, 20 - 25.

5. Barbara Davis Center for Diabetes. (n.d.). Autoimmunity Screening for Kids: Screening Locations. <https://www.askhealth.org/locations>

6. McQueen, R.B., Rasmussen, C.G., Waugh, K., Frohner, B.J., Steck, A.K., Yu, L., Baxter, J., Frewers, M. (2020). Cost and Cost-effectiveness of Large-scale Screening for Type 1 Diabetes in Colorado. *Diabetes Care* 43(7): pp. 1496-1503. <https://doi.org/10.2337/dc19-2003>

7. American Diabetes Association Professional Practice Committee (2024). Diagnosis and Classification of Diabetes: Standards of Care in Diabetes—2024. *Diabetes Care* 47 (Supplement 1), S20-S42. <https://doi.org/10.2337/dc24-S002>