

Early Detection of Type 1 Diabetes (T1D)

Type 1 diabetes can now be identified early (before insulin is required) with a simple blood test that can identify T1D autoantibodies. Early detection has many proven benefits, including a reduced risk of diabetic ketoacidosis (DKA) at diagnosis, providing time to plan and prepare, and opening doors to research opportunities or available treatments.^{1,2}

Screening Options

Option 1: Screen Through a Research Study

TrialNet

- For people 2 to 45 years old who have a parent, brother/sister, or child with T1D, or
- For people 2 to 20 years old who have an aunt/uncle, cousin, grandparent, niece/nephew, or half-brother/sister with T1D
- For people ages 2 to 45 years with a positive T1D autoantibody test at another lab
- Lab or at-home tests available



ASK

- For all children ages 1-17
- No family history of type 1 diabetes is required
- At-home tests available
- Also screens for Celiac Disease



Option 2: Screen Through Your Doctor's Office

Your doctor (or your child's doctor) can order labs to detect type 1 diabetes autoantibodies and the cost may be covered by your insurance. Consider contacting your insurance company regarding coverage prior to testing.

Positive Result?

- Positive test results can cause stress and anxiety.
- Confirmatory testing must be performed, either through TrialNet (free for ages 2-45 years) or your doctor's office
- Ask the Experts can provide individualized support for you in partnership with your doctor (visit www.asktheexperts.org or scan QR code)



Information for Healthcare Providers

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

International consensus guidance is available for monitoring autoantibody-positive individuals in early-stage T1D.² (scan below)

Negative Result?

Consider additional testing in the future if at risk for developing T1D.

Positive Result?

- Order confirmatory testing
- Consider referral to TrialNet for free confirmatory testing and possible referral to research studies
- Additional metabolic testing: HbA1c, random blood glucose
- Provide patient education including T1D symptoms
- If multiple autoantibodies present or dysglycemia, refer to Endocrinology



With your support, we are creating a movement to improve and change life with T1D, advancing breakthroughs on the way to cures.

To find out more about resources and support, visit BreakthroughT1D.org/early-detection/.



Frequently Asked Questions

What is early detection of type 1 diabetes?

T1D develops in stages over time and can be detected by a simple blood test (T1D autoantibody test) before glucose is elevated and insulin is required. T1D autoantibodies signal that the body's immune system is attacking the insulin-producing cells in the pancreas. If a person has two or more confirmed autoantibodies, they have a high likelihood for progression to stage 3 T1D.

Stages of Type 1 Diabetes

STAGE 1	STAGE 2	STAGE 3
Multiple autoantibodies Blood glucose normal No symptoms	Autoantibodies present (usually multiple) Blood glucose abnormal (dysglycemia) No symptoms	Autoantibodies present Blood glucose elevated (hyperglycemia) Often symptomatic

Benefits of early detection of type 1 diabetes

- Reduce the risk of diabetic ketoacidosis (DKA) at diagnosis of stage 3 type 1 diabetes
- Introduce autoantibody-positive individuals to research or clinical trials aimed at delaying/preventing the onset of stage 3 T1D
- Refer autoantibody positive individuals to specialists for follow up and consideration of FDA-approved therapies to delay onset of stage 3 T1D
- Give families time to plan and prepare

What are the signs and symptoms of T1D?



Frequent
Urination



Extreme
Thirst



Dry
Mouth



Fatigue and
Weakness



Increased
Appetite



Unexplained
Weight Loss



Blurred
Vision

**Breakthrough T1D content is for informational purposes only and is not a substitute for professional medical advice. Please contact your doctor or other qualified health provider with any questions you may have regarding type 1 diabetes or any medical condition.

1. American Diabetes Association Professional Practice Committee; 2. Diagnosis and Classification of Diabetes: Standards of Care in Diabetes—2024. Diabetes Care 1 January 2024; 47 (Supplement_1): S20–S42. <https://doi.org/10.2337/dc24-S002>

2. Phillip M, Achenbach P, Addala A, et al. Consensus Guidance for Monitoring Individuals with Islet Autoantibody-Positive Pre-Stage 3 Type 1 Diabetes. Diabetes Care. 2024;47(8):1276-1298. doi: 10.2337/dci24-0042.

