






# 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.<sup>1,2</sup>


## Screening Options

Option 1: Screen Through a Research Study	Option 2: Screen Through Your Doctor's Office
<p><b>TrialNet</b></p> <ul style="list-style-type: none"> <li>• For people 2 to 45 years old who have a parent, brother/sister, or child with T1D, or</li> <li>• For people 2 to 20 years old who have an aunt/uncle, cousin, grandparent, niece/nephew, or half-brother/sister with T1D</li> <li>• For people ages 2 to 45 years with a positive T1D autoantibody test at another lab</li> <li>• Lab or at-home tests available</li> <li>• Available at no cost for those who qualify</li> </ul> 	<p>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.</p> <p><b>Positive Result?</b></p> <ul style="list-style-type: none"> <li>• Positive test results can cause stress and anxiety.</li> <li>• Confirmatory testing must be performed, either through TrialNet (free for ages 2-45 years) or your doctor's office</li> <li>• Ask the Experts can provide individualized support for you in partnership with your doctor (visit <a href="http://www.asktheexperts.org">www.asktheexperts.org</a> or scan QR code)</li> </ul> 
<p><b>ASK</b></p> <ul style="list-style-type: none"> <li>• For children &amp; adults ages 1-99 (without history of T1D)</li> <li>• No family history of type 1 diabetes is required</li> <li>• At-home tests available</li> <li>• Also screens for Celiac Disease</li> <li>• Available at no cost for those who qualify</li> </ul> 	

## Information for Healthcare Providers

Labs to order (4)	Related diagnosis codes
<ul style="list-style-type: none"> <li>• Insulin Autoantibody (IAA)-CPT 86337</li> <li>• Glutamic Acid Decarboxylase (GAD) Autoantibody-CPT 86341</li> <li>• Islet Antigen 2 (IA-2) Autoantibody-CPT 86341</li> <li>• Zinc Transporter 8 (ZnT8) Autoantibody-CPT 86341</li> </ul>	<ul style="list-style-type: none"> <li>• Z83.3 - Family history of diabetes</li> <li>• R73.9 - Hyperglycemia, unspecified</li> <li>• Z13.1 - Screening for diabetes mellitus</li> </ul>

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

Negative Result?	Positive Result?	
<p>Consider additional testing in the future if at risk for developing T1D.</p>	<ul style="list-style-type: none"> <li>• Order confirmatory testing</li> <li>• Consider referral to TrialNet for free confirmatory testing and possible referral to research studies</li> <li>• Additional metabolic testing: HbA1c, random blood glucose</li> <li>• Provide patient education including T1D symptoms</li> <li>• If multiple autoantibodies present or dysglycemia, refer to Endocrinology</li> </ul>	

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/](http://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 <b>No symptoms</b>	Autoantibodies present (usually multiple) Blood glucose abnormal (dysglycemia) <b>No symptoms</b>	Autoantibodies present Blood glucose elevated (hyperglycemia) <b>Often symptomatic</b>

### 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.



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