

New insights into adult-onset type 1 diabetes

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DIABETES



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Type 1 diabetes, a chronic condition affecting millions of young individuals globally, is not exclusive to childhood. As many as half of all cases are diagnosed during adulthood, and there is a need to understand the factors contributing to the development of type 1 diabetes in adults.

A new study at Karolinska Institutet now provides new insights into the development of the disease in adults. [The results](#) are presented in *The*

Lancet Diabetes & Endocrinology.

The research, conducted at the Institute of Environmental Medicine, was based on data from more than 2.8 million individuals, and the aim was to compare the heritability of type 1 [diabetes](#) in adults and children. The findings indicate that having a first-degree relative with the condition significantly increases the risk of developing type 1 diabetes as an adult, and the risk is higher if the relative developed diabetes early. Overall, heritability is lower for type 1 diabetes in adults than children.

Yuxia Wei, Ph.D. student at the Institute of Environmental Medicine and first author, notes, "Our study provides new insights on the causes of type 1 diabetes in adults. The lower [heritability](#) in adults suggests that environmental factors play a larger role for disease development in adults than children."

The study underscores the need for further research to identify [environmental factors](#) contributing to adult-onset type 1 diabetes. "Understanding these factors is crucial for developing targeted interventions to prevent the disease's development," says Sofia Carlsson, senior lecturer at the Institute of Environmental Medicine.

More information: Yuxia Wei et al, Familial aggregation and heritability of childhood-onset and adult-onset type 1 diabetes: a Swedish register-based cohort study, *The Lancet Diabetes & Endocrinology* (2024). [DOI: 10.1016/S2213-8587\(24\)00068-8](https://doi.org/10.1016/S2213-8587(24)00068-8)

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