

Increase in the incidence of type 1 diabetes in children during the COVID-19 pandemic

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During the COVID-19 pandemic, more children and adolescents have newly developed type 1 diabetes than in previous years. This is shown by a recent study of the DZD, the University of Giessen and the University

of Ulm with co-authors from other centers in Germany, based on the data of the multicenter German Diabetes Prospective Follow-up Registry (DPV).

The aim of this study was to investigate the incidence of type 1 diabetes in children and adolescents during the COVID-19 pandemic in Germany in comparison to previous years. For this purpose, the researchers recorded the children and adolescents aged between six months and 18 years newly diagnosed in Germany for the period from January 1, 2020 to June 30, 2021. During this period, 5,162 children and adolescents with new-onset T1D were registered in the DPV. This corresponds to an incidence of 24.4 per 100,000 patient-years. Using Poisson regression models, the researchers determined the expected incidence for 2020/21 from data from 2011 to 2019 to be only 21.2, meaning that the observed incidence during the Corona pandemic was significantly higher than the expected incidence (24.4 [95% CI 23.6-25.2] vs. 21.2 [20.5-21.9]; incidence rate ratios (IRR) 1.15 [1.10-1.20]; P New cases increased particularly in June 2020 (IRR 1.43 [1.07-1.90]; P 5 0.003), July 2020 (IRR 1.48 [1.12-1.96]; P diabetes incidences increased with a delay of about three months after the COVID-19 incidence waves as well as after the pandemic containment measures," reported last author and DZD scientist Prof. Reinhard W. Holl of the University of Ulm. However, the underlying causes for the rise in T1D incidence are still unknown, the researchers emphasize. They consider the increase to be an indirect consequence of the [pandemic](#) rather than directly triggered by COVID infection.

The research was published in *Diabetes Care*.

More information: Clemens Kamrath et al, Incidence of Type 1 Diabetes in Children and Adolescents During the COVID-19 Pandemic in Germany: Results From the DPV Registry, *Diabetes Care* (2022).
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