

Weight increase in first year of life associated with risk of type 1 diabetes

December 7 2015

Weight increase during the first year of an infant's life was associated with risk for type 1 diabetes in study of children born in Norway and Denmark, according to an article published online by *JAMA Pediatrics*.

Type 1 diabetes is among the most common chronic diseases with onset in childhood. No single environmental factor has been established as a risk factor.

Maria C. Magnus, Ph.D., of the Norwegian Institute of Public Health, Oslo, and coauthors examined growth during the first year of life and the risk of childhood-onset type 1 diabetes.

The study used information from two Scandinavian study groups of [children](#) born between 1998 and 2009. The current study was conducted between November 2014 and June 2015. The average age of children at the end of follow-up was 8.6 years in the group of children from Norway and 13 years in the group of children from Denmark.

The study included 99,832 children (59,221 from the Norway study group and 40,611 from the Denmark study group). The incidence of type 1 diabetes from the age of 12 months to the end of follow-up was 25 cases per 100,000 person-years in the group of children from Denmark and 31 cases per 100,000 person-years in the group of children from Norway.

Authors report the change in weight from birth to 12 months was

associated with the risk for subsequent diagnosis of type 1 diabetes. The average change in weight from birth to 12 months was just over 13 pounds (6 kilograms). The authors report no significant association between an infant's increase in length from birth to 12 months and type 1 diabetes.

Study limitations include unmeasured factors that may be present.

"In conclusion, our study is the first prospective population-based study, to our knowledge, providing evidence that [weight](#) increase during the first year of life is positively associated with type 1 diabetes. This supports the early environmental origins of type 1 [diabetes](#)," the study concludes.

More information: *JAMA Pediatr*. Published online December 7, 2015. [DOI: 10.1001/jamapediatrics.2015.3759](https://doi.org/10.1001/jamapediatrics.2015.3759)

Provided by The JAMA Network Journals

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