

# Feeding at-risk infants gluten increases risk of developing celiac disease

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Intake of gluten up until two years of age increases risk of celiac disease at least two-fold in children with genetic risk factors for this disease, according a study published in [Clinical Gastroenterology and Hepatology](#) the official clinical practice journal of the American Gastroenterological Association.

"The role of gluten intake in infants and the risk of later developing celiac disease has long been debated," said lead study author Carin Andrén Aronsson, MSc, from the department of clinical sciences, Lund University, Sweden. "Our study provides convincing evidence that the amount of gluten ingested at an early age plays a role in disease course, particularly in children with genetic risk of developing celiac disease."

To be at risk for celiac disease, an individual must be both exposed to gluten and carry one of the HLA haplotypes DR3-DQ2 or DR4-DQ8. In this study, the association between gluten intake during the first two years of life and development of celiac disease did not differ among HLA-risk genotypes.

"This finding offers insight into why some, but not all, children at [genetic risk](#) develop celiac disease," added Ms. Aronsson.

Researchers performed a case-control study of 146 cases, resulting in 436 pairs of children, generated from a database of 2,525 children with genetic susceptibility to celiac disease in Sweden, matched for sex, birth year and HLA genotype with non-risk patients, from September 2004 to

February 2010. Gluten intake was calculated from three-day food records collected when the children were nine, 12, 18 and 24 months old.

It is important to acknowledge that Swedish infant feeding practices differ from other European countries and the U.S. In Sweden, it is traditional to feed infants with gluten-containing foods at an earlier age and in larger amounts as compared to other countries. Future studies from other countries are necessary to confirm if gluten intake during infancy triggers [celiac disease](#) in young [children](#).

**More information:** Andrén Aronsson C, Lee H-S, Koletzko S, Uusitalo U, Yang J, Virtanen SM, Liu E, Lernmark Å, Norris JM, Agardh D, and the TEDDY Study Group, Effects of Gluten Intake on Risk of Celiac Disease: a case-control study on a Swedish birth cohort, *Clinical Gastroenterology and Hepatology* (2015), [DOI: 10.1016/j.cgh.2015.09.030](#)

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