

# Pregnant women with high celiac disease antibodies are at risk for low birth weight babies

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Pregnant women with mid to high levels of antibodies common in patients with celiac disease are at risk for having babies with reduced fetal weight and birth weight, according to a new study in *Gastroenterology*, the official journal of the American Gastroenterological Association. The antibody tissue transglutaminase (anti-tTG) is most commonly found in patients with celiac disease.

"While several [observational studies](#) have suggested that celiac disease is associated with different [pregnancy outcomes](#), this research takes into account the actual levels of [tissue transglutaminase](#) that reflect the degree of mucosal damage associated with undiagnosed celiac disease or limited compliance to a gluten-free diet. This differentiation is critical since most celiac disease cases remain undiagnosed," said Jessica Kiefte-de Jong, MSc, Erasmus University Medical Center, and lead author of the study.

Researchers conducted a population-based perspective [birth cohort](#) study of 7,046 pregnant women, and categorized subjects into three groups: negative anti-tTG (control), intermediate anti-tTG (just below the clinical cut-off point used to diagnose patients with celiac disease) and positive anti-tTG (highly probable celiac disease patients). [Fetuses](#) of women with positive anti-tTG weighed 16 grams less than those of women with negative anti-tTG levels during the second trimester and weighed 74 grams less during the [third trimester](#).

People with intermediate anti-tTG levels are generally not considered to be potential celiac disease patients, yet [birth outcomes](#) for these individuals were also affected. Infants of women with intermediate and positive anti-tTG weighed 53 grams and 159 grams less at birth, respectively, than those of women with negative anti-tTG.

"Researchers need to explore the natural history and long-term consequences of intermediate anti-tTG levels to determine if these levels are caused by pregnancy or whether it reflects a subclinical state of celiac disease that needs follow-up," added Jong.

Further helping to identify the connection between anti-tTG levels and celiac disease, a study in *Clinical Gastroenterology and Hepatology* reconfirms the recent European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) guidelines, which recognize that the likelihood for celiac disease increases with increasing antibody concentration.

Research from University Hospitals Leuven, Belgium, stresses the importance of also monitoring for relevant symptoms, such as weight loss, failure to thrive, anemia, iron deficiency or fatigue, when diagnosing patients, and notes that physicians should not rely solely on anti-tTG testing to make a diagnosis.

The study found that there is a 50 to 75 percent chance that persons without symptoms, but with anti-tTG levels more than 10 times the cutoff value, as defined in the ESPGHAN guidelines, will have celiac disease. The probability that a patient has celiac disease rises to 95 percent or higher when, in addition to high anti-tTG levels, the patient expresses complaints that can be associated with celiac disease.

**More information:** Learn more about celiac disease in the AGA brochure "Understanding Celiac Disease" at [www.gastro.org/patient-](http://www.gastro.org/patient-)

[center/... tions/celiac-disease](#)

Provided by American Gastroenterological Association

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