

Spouses and relatives of celiac disease patients at risk for autoimmune diseases

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Both spouses and first-degree relatives of patients with celiac disease are at increased risk of nonceliac autoimmune disease, according to a study in the July issue of *Clinical Gastroenterology and Hepatology*, the official clinical practice journal of the American Gastroenterological Association. This risk represents a mixture of genetic, environmental and ascertainment bias mechanisms.

"The prevalence of celiac disease in first-degree relatives of individuals with celiac is approximately 10 percent. Despite these findings, little is known about the risk of nonceliac autoimmune disease in these individuals," said lead study author Louise Emilsson, MD, PhD, from Oslo University and Primary care research unit, Värmlands Nysäter. "We found convincing results that close relatives are also at risk for these conditions, but more surprisingly, we found that [spouses](#) may also be at risk."

Researchers conducted a nationwide, population-based long-term observational cohort study using the Swedish Multi-Generation Register to monitor the risk of nonceliac autoimmune disease, which includes Crohn's disease, type 1 diabetes mellitus, hypothyroidism, hyperthyroidism, psoriasis, rheumatoid arthritis, sarcoidosis, [systemic lupus erythematosus](#) and ulcerative colitis. The analysis included more than 84,000 first-degree relatives (fathers, mothers, siblings and offspring) and spouses of patients with celiac disease, and 430,942 controls.

During the follow-up period, which averaged close to 10.8 years, 4.3 percent of celiac relatives developed nonceliac autoimmune disease, compared to 3.3 percent in the control group. Systemic lupus erythematosus, type I diabetes mellitus and sarcoidosis were the most common nonceliac [autoimmune diseases](#) seen in patients.

While the excess risk found in celiac first-degree relatives can be explained by genetics, the higher risk in spouses points to the impact of environmental factors. It is also possible that spouses share microbiome characteristics with their husband/wife, which might impact the risk of developing and diagnosing other autoimmune diseases.

Another explanation is ascertainment bias, meaning that first-degree relatives and spouses are likely to seek medical advice or undergo celiac disease testing more often than the general population. It could also mean that doctors who are aware of the [celiac disease](#) patient are more likely to investigate first-degree [relatives](#) and spouses for autoimmunity.

More information: Emilsson, Louise, et al. Autoimmune Disease in First-Degree Relatives and Spouses of Individuals With Celiac Disease, *Clinical Gastroenterology and Hepatology*, Volume 13(7): 1271-1277.e2. [www.cghjournal.org/article/S15... \(15\)00112-3/abstract](http://www.cghjournal.org/article/S15... (15)00112-3/abstract)

Provided by American Gastroenterological Association

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