

# Study finds increased risk of death for patients with celiac disease-related disorders

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New research indicates that patients with lesser degrees of celiac disease-related symptoms, such as intestinal inflammation or latent celiac disease, have a modestly increased risk of death, according to a study in the September 16 issue of *JAMA*.

"Celiac disease is an immune-mediated disorder that is triggered by gluten exposure in genetically sensitive individuals, occurring in about 1 percent of the Western population," according to background information in the article. It causes impaired digestion of nutrients through the small intestine, with symptoms including frequent [diarrhea](#) and weight loss. While most research has shown an increased risk of death in celiac disease, less is known about the long-term consequences of nonspecific small-intestinal inflammation without villous [atrophy](#) (abnormality of the small intestinal mucosa [the innermost membrane of the intestinal wall], resulting in flattening of the mucosa). "Research on other inflammatory disorders suggests that inflammation may be associated with increased mortality, but this has not been investigated for nonspecific inflammation in the small intestine."

Jonas F. Ludvigsson, M.D., Ph.D., of Örebro University Hospital, Örebro, Sweden, and colleagues used nationwide histopathology (diseased tissue studied at a microscopic level) data collected from biopsies taken between July 1969 and February 2008 in Sweden to examine the overall risk of death in individuals with celiac disease and inflammation. Data from the biopsies was divided into three groups: celiac disease (Marsh stage 3 [a classification of the stage of the disease]: villous atrophy; n = 29,096 individuals); inflammation (Marsh stage 1-2; n = 13,306); and individuals with latent celiac disease, (n = 3,719). Latent celiac disease was defined as positive celiac disease serology in individuals with normal

intestinal mucosa. Through linkage with the Swedish Total Population Register, the researchers estimated the risk of death through August 2008, compared with age- and sex-matched controls from the general population.

The data indicated there were 3,049 deaths among patients with celiac disease, 2,967 deaths in patients with inflammation, and 183 deaths with latent celiac disease. The researchers found that the risk of death was increased in all 3 groups, with patients with inflammation having a 72 percent increased risk of death; patients with celiac disease, a 39 percent increased risk; and patients with latent celiac disease having a 35 percent increased risk of death.

The risk of death was highest in the first year of follow-up, with celiac disease associated with a 2.8-fold increased risk of death, inflammation with a 4.7-fold increase, and latent celiac disease with a 1.8-fold increase. After the first year of follow-up, these figures decreased. The risk of death also decreased with age at diagnosis, with risk being higher for those diagnosed before age 20.

"In conclusion, we found increased [risks] for death in individuals with biopsy-verified celiac disease, inflammation, and latent celiac disease, although absolute risks were small. Individuals undergoing small-intestinal [biopsy](#) in childhood had increased [risks] for death. Cardiovascular disease and malignancy were the main causes of death in celiac disease," the authors write.

More information: *JAMA*. 2009;302[11]:1171-1178.

Source: *JAMA* and Archives Journals ([news](#) : [web](#))

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