Adults with undiagnosed Celiac disease have lower bone density, says first study on topic

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Research by George Mason University College of Health and Human Services found that adults who likely had undiagnosed celiac disease (UCD) had lower bone density than the adults without UCD, although

they consumed more calcium and phosphorous. Celiac disease is an autoimmune disease triggered by consuming gluten, and individuals with CD are often undiagnosed. This is the first known study of bone health of U.S. adults with untreated UCD.

Lara Sattgast and Drs. Margaret Slavin, Cara Frankenfeld, and Sina Gallo led the research published in *Journal of the American College of Nutrition*. They found that adults with UCD had lower bone density in their thighbones and femur necks—the top of the femur and most common site for hip fractures.

"Our findings suggest that lower bone density among adults with UCD is not a result of their diets, and in fact, they took in more calories and nutrients than the control group," Sattgast explains. "This may mean that these adults are not correctly absorbing nutrients."

The study used data from the National Health and Nutrition Examination Survey (NHANES) from 2009 to 2014, including its dietary component—What We Eat in America (WWEIA). In this study, data on more than 13,000 adults who were not pregnant or eating a gluten-free diet were used.

"The time to diagnosis for celiac disease has improved in recent years, but still typically takes several years between the first symptoms and diagnosis," Slavin explains. "If someone suspects that they may have celiac disease, it is important they see a doctor to both get the proper diagnosis and treatment and not self-initiate a gluten-free diet on their own."

This study provides further support for monitoring bone health of individuals with celiac disease. The researchers suggest that future work should explore optimal levels for consuming and/or supplementing nutrients for bone health and whether poor absorption in the small

intestine fully explains the differences observed in bone health or whether other metabolic pathways are impacted.

More information: Lara H. Sattgast et al, Nutritional Intake and Bone Health Among Adults With Probable Undiagnosed, Untreated Celiac Disease: What We Eat in America and NHANES 2009–2014, *Journal of the American College of Nutrition* (2019). DOI: 10.1080/07315724.2019.1616003

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