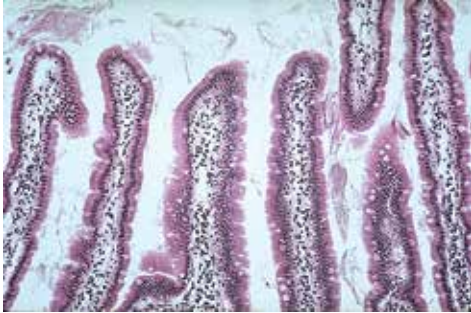


Celiac Disease Testing

Supporting Organizations

Celiac Disease Cascading Reflex*: Test Code 905151
Celiac Disease Comprehensive Panel**: Test Code 803170



Celiac Disease: An Important Comorbidity Associated With Type 1 Diabetes; *Clinical Diabetes* 26; 85-87, 2008

Physicians Fasy and Umpierrez write, "Evidence of celiac disease is present in a high percentage of children at the time of diagnosis with type 1 diabetes, and these individuals typically develop celiac disease within 4 years of their diabetes diagnosis."

National Institutes of Health (NIH)¹

A new generation of tests that use deamidated gliadin peptides (DGP) have sensitivity and specificity that are substantially better than the older gliadin tests.² DGP tests are more accurate than tTG and AGA and may be the most reliable tests to detect celiac disease in people with IgA deficiency.

In cases of IgA deficiency, IgG tTG or DGP-IgG should be measured.

Nearly all people with celiac disease have gene pairs that encode for at least one of the human leukocyte antigen (HLA) gene variants, or alleles, designated HLA-DQ2 or HLA-DQ8. However, these alleles are common. They are found in about 40 percent of the general U.S. population, and most people with these alleles do not have celiac disease. Negative findings for HLA-DQ2 and HLA-DQ8 can essentially rule out current or future celiac disease in patients for whom other tests, including biopsy, do not provide a clear diagnostic result.

1. Testing for celiac disease. (2009). Provider Points, 09-7351. Retrieved from <http://www.celiac.nih.gov>

2. Rashtak S, Ettore MW, Homburger HA, Murray JA. Combination testing for antibodies in the diagnosis of celiac disease: comparison of multiplex immunoassay and ELISA methods. *Alimentary Pharmacology & Therapeutics*. 2008;28(6):805-813.

New England Journal of Medicine

Celiac disease may be linked to diabetes. Children with type 1 diabetes are more likely to have celiac disease than those without diabetes. *2008;359(26):2767-2777*

A recent study found that these two diseases share seven chromosome regions. About one in twenty people with type 1 diabetes has celiac disease. Compared to one in 250 people, without type 1 diabetes, (that) have celiac disease. *Smyth DJ, Plagonol V, Walker NM, et al. Shared and distinct genetic variants in type 1 diabetes and celiac disease.*

American Diabetes Association: Standards of Medical Care in Diabetes - 2010

Celiac disease recommendations:

- Children with type 1 diabetes should be screened for celiac disease by measuring tissue transglutaminase or anti-endomysial antibodies, with documentation of normal serum IgA levels, soon after the diagnosis of diabetes.
- Testing should be repeated if growth failure, failure to gain weight, weight loss, or gastroenterologic symptoms occur.
- Consideration should be given to periodic rescreening of asymptomatic individuals.

Celiac disease is an immune-mediated disorder that occurs with increased frequency in patients with type 1 diabetes (1–16% of individuals compared with 0.3–1% in the general population).

Archives of Internal Medicine

Conclusions: The prevalence of celiac disease among osteoporotic individuals (3.4%) is much higher than that among nonosteoporotic individuals (0.2%). The prevalence of celiac disease in osteoporosis is high enough to justify a recommendation for serologic screening of all patients with osteoporosis for celiac disease. *Arch Intern Med.* 2005;165:393-399

The American Journal of Gastroenterology

Conclusions: Celiac sprue is an elusive diagnosis, with most patients having few, atypical, or no symptoms at presentation. Consequently, a large population of undiagnosed patients probably exists in the community. The diagnosis should be actively considered in patients with unexplained iron or folate deficiency anemia, hypocalcemia, abnormal liver blood tests, or extraintestinal manifestations, such as osteoporosis, infertility, neurological disturbances, and arthralgia, or patients with IDDM or autoimmune thyroid, connective tissue, and liver disorders. *American Journal of Gastroenterology.* 2001;96:3244

*Celiac Disease Cascading Reflex contains: Total IgA; If IgA is normal or elevated (within or above the age specific range): Reflex to Tissue Transglutaminase (tTG) Ab, IgA AND Gliadin (Deamidated) Ab, IgA; If IgA is low (≥ 10 mg/dL & below age specific range): Reflex to Tissue Transglutaminase (tTG) Abs, IgG & IgA AND Gliadin (Deamidated) Abs, IgG & IgA; If IgA is deficient (< 10 mg/dL): Reflex to Tissue Transglutaminase (tTG) Ab, IgG AND Gliadin (Deamidated) Ab, IgG

**Celiac Disease Comprehensive Panel contains: Total IgA; tTG Ab, IgA & IgG; Gliadin (Deamidated) Ab, IgA & IgG

For more information, contact your Account Manager or visit www.SonoraQuest.com.

