

The first step in pursuing a diagnosis of celiac disease is a serologic test.

Testing for Celiac Disease

CompuNet offers several tests for the diagnosis for Celiac disease. These include antibodies to gliadin (IgG and IgA), tissue transglutaminase – TTG (IgA), and endomysium (IgA).

Each marker may be ordered individually or a profile may be ordered. The celiac panel contains all four markers in addition to a total IgA level. When serologic testing indicates a diagnosis of celiac disease, the diagnosis is confirmed by observing villus atrophy on an intestinal biopsy.

Benefits

- Helps in early detection to gluten sensitivity, which may help slow disease progression.
- Helps to differentiate celiac disease from irritable bowel syndrome.

Clinical Summary

Celiac disease is an immune-mediated disorder that primarily affects the gastrointestinal tract. It is characterized by inflammation of the small intestine that may result in atrophy of the intestinal villi, malabsorption, and numerous other clinical manifestations. Intestinal symptoms include diarrhea, abdominal cramping, pain, and distension. It is common for celiac disease to present with extraintestinal symptoms, sometimes with little or no gastrointestinal symptoms. These symptoms include dermatitis herpetiformis (itchy rash on elbows, knees, and buttocks), anemia, infertility, and delayed puberty. Untreated disease may lead to vitamin and mineral deficiencies and osteoporosis.

There is a strong genetic predisposition to celiac disease. More than 97 percent of celiac patients have the HLA-DQ2 and/or HLA-DQ8 genetic markers compared to 40 percent in the general population. Dietary proteins, called gluteins, present in wheat, barley, and rye interact with these HLA molecules to activate an abnormal immune response and induce tissue damage. Symptoms subside when gluten is removed from their diet. It is estimated that 2-3 million Americans are affected by celiac disease. Individuals with a higher risk of celiac disease include those with Type 1 diabetes, autoimmune diseases, Down's Syndrome, and first and second-degree relatives of celiac patients. It has also been noted that selective IgA deficiency occurs at a 10 to 16-fold higher rate in celiac patients than the general population.

Specimen Requirements

- 2 ml serum required
- Samples should be stored in refrigerator
- All tests require SST tube

Test Codes

74221 Gliadin IgA marker

74222 Gliadin IgG marker

8889 Gliadin Panel - includes IgA and IgG markers

8821 TTG IgA marker

74224 Endomysial IgA marker

73861 Celiac Panel - includes 4 markers plus total IgA level

For more information

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Sources: National Institutes of Health, Consensus Development Conference Statement (draft statement), June 30, 2004; Celiac Disease, PHR Green, B. Jabri, The Lancet, Vol. 362, No. 9381, pp. 383-391.