



Celiac Disease (Gluten-sensitive Enteropathy)

Overview

Celiac disease (CD) affects as many as 1:130-300 Europeans,¹ 1:250 Americans,² and has recently been cited as being grossly underdiagnosed among the African and Asian regions of the world.¹ Environmental factors may be involved in the pathogenesis of the disease. In Western countries, for every diagnosed CD case, an average of 5-10 cases are undiagnosed.¹ The high number of unrecognized CD cases is attributed to the complex combination of environmental³ and genetic^{2,3} factors that comprise the disease, coupled with the large variety of clinical manifestations—classical (typical), atypical and asymptomatic (silent).¹ Classical associations can include aphthous stomatitis, chronic diarrhea, abdominal bloating and progressive weight loss.^{1,4} Atypical forms are dermatitis herpetiformis (DH), bone pain, hyposplenism, IgA nephropathy, primary biliary cirrhosis, sclerosing cholangitis, Sjögren syndrome, Down Syndrome and type I diabetes.⁴⁻⁶ Recent studies have added iron deficiency with or without anemia, short stature, dental enamel hypoplasia, rheumatoid arthritis, histopathologic hepatic alterations, gastrointestinal carcinoma or lymphoma, recurrent abortions, reduced fertility, and delayed onset of puberty to the list of atypical forms of CD.¹ Indicators of asymptomatic (silent) CD are low-intensity and often psychophysical in nature.¹ Anemia, mild weakness, and behavioral disturbances are among the more common examples.^{1,4} Early recognition of CD is essential because complications and progression are preventable by adherence to a gluten-free diet.^{1,3}

Clinical Utility

Support a diagnosis of celiac disease or dermatitis herpetiformis

- ?? IgA endomysial autoantibodies are nearly 100% specific for screening patients with active, untreated celiac disease^{7,8}
- ?? IgA autoantibodies to transglutaminase, a newly discovered autoantigen in celiac disease, are useful in the diagnosis and monitoring of celiac disease⁹

Monitor adherence to a gluten-free diet and assess response to treatment

- ?? IgA reticulín autoantibodies (R1 type) and endomysial autoantibodies typically correlate with changes in mucosa, decreasing as mucosa recovers⁷
- ?? IgG gliadin antibodies are highly sensitive but not as specific as IgA gliadin antibodies;⁷ concentrations increase rapidly in response to gluten in the diet and decrease rapidly when gluten is absent from the diet.¹⁰ The prevalence of gliadin antibodies increases with age⁸

Ordering Information & Specimen Requirements

Test Code	Test Name	Specimen Requirements
1077	Celiac Disease EvaluatR™ Transglutaminase IgA Autoantibodies Gliadin IgG & IgA Antibodies Endomysial IgA Autoantibodies Reticulin IgA Autoantibodies	4 mL Serum; Ambient, Refrigerated or Frozen. Ship on cold pack.

Methodology

- 1077 Celiac Disease EvaluatR™**
Transglutaminase IgA Autoantibodies, EIA
Gliadin IgG & IgA Antibodies, EIA
Endomysial IgA Autoantibodies, IFA
Reticulin IgA Autoantibodies, IFA

Related Tests

- 1075 Celiac Disease EvaluatR™ with IgA**
1076 Celiac Disease Antibodies Evaluation
1191 Endomysial IgA Autoantibodies
1266 Gliadin IgG & IgA Antibodies
1352 HLA: DR Typing, Complete
1162 Reticulin IgA Autoantibodies
1105 Reticulin Total Autoantibodies
1029 Transglutaminase IgA Autoantibodies

References

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