

GLUTEN SENSITIVITY TESTING

Gluten sensitivity refers to a heightened immunological response to ingested gluten. It represents a spectrum of diseases with diverse manifestations, such as enteropathy (including celiac disease), dermatopathy (dermatitis herpetiformis), and neurological disorders (ataxia and neuropathy), and it may be the underlying reason for many other nonspecific symptoms. Because these diseases have a common etiological trigger (gluten), there is a great deal of overlap among them.

LabCorp's **Gluten Sensitivity Screen With Reflex (164125)** is intended to aid in the diagnosis of gluten sensitivity in patients with symptoms suggestive of this condition.

Step One

The screening starts with testing for IgA and IgG antibodies to deaminated gliadin peptide (DGP) and tissue transglutaminase (tTG) that allows for simultaneous detection for all four types of antibodies in one test (tTG/DGP screen). This step aids in the diagnosis of gluten-sensitive enteropathies, including celiac disease. Antibodies to DGP and tTG are highly specific and sensitive for those conditions.^{1,2} **When the result is positive, testing stops, and the interpretative comment on the report would read:**

Suggestive of celiac disease or other gluten-sensitive enteropathies. Subsequent testing for **Endomysial Antibody, IgA (164996)** and/or genetic testing for **Celiac Disease HLA DQ Association (167082)** may be indicated for further patient evaluation.

When result is negative, testing will reflex to the second step.

Step Two

In the second step, the test for IgG antibodies to native gliadin (AGA) is performed. These antibodies are the most sensitive markers in the spectrum of gluten sensitivity, including extraintestinal manifestations.^{1,3} **When the result is positive, testing stops and the interpretative comment would read:**

Suggestive of non-celiac gluten sensitivity. Patient may benefit from gluten-free diet.

When the result is negative, testing will reflex to the third step.

Step Three

In the third and last step, the test for wheat allergen-specific IgE is performed. Allergic reaction to wheat may mimic the clinical presentation of gluten sensitivity and is a common food allergy in children. The triggering agent, however, may not be just gluten, but any other protein or combination of proteins found in wheat. Because wheat allergy patients may also be allergic to other grains with similar proteins like rye and barley, they will benefit from a gluten-free diet. **When the result is positive, testing stops and the interpretative comment will read:**

Suggestive of wheat allergy. Patient may benefit from gluten-free diet.

When the result is negative, testing stops and the interpretative comment will read:

Not suggestive of gluten sensitivity.

REFERENCES

1. Hadjivassiliou M, Grünewald RA, Kandler RH, et al. Neuropathy associated with gluten sensitivity. *J Neurol Neurosurg Psychiatry*. 2006;77(11):1262-1266.
2. Snyder CL, Young DO, Green PHR, Taylor AK. Celiac disease. [GeneReviews Web site]. July 3, 2008. Available at: <http://www.ncbi.nlm.nih.gov/books/NBK1727/>. Accessed September 2, 2010.
3. Ford RP. The gluten syndrome: a neurological disease. *Med Hypotheses*. 2009;73(3):438-440.