Blood Testing for Celiac Disease

Diagnostic Alert: A GLUTEN-FREE DIET SHOULD NOT BE STARTED BEFORE A BLOOD TEST **AND** UPPER ENDOSCOPY WITH INTESTINAL BIOPSY HAVE BEEN COMPLETED. The diet interferes with accurate results of both tests.

1. Which tests are used for screening for celiac disease in Canada

Either the IgA-human tissue transglutaminase (TTG) or IgA-endomysial antibody (EMA) test or a combination of both are recommended as screening tests. "Celiac disease screening/ panel" on a lab requisition should include one or both of these tests. An additional test is required to measure the serum IgA concentration (explained in Question #3).

2. Which test is the better one?

They are equally accurate as screens for celiac disease in individuals who regularly eat foods that contain gluten (see glossary).

3. My doctor ordered another test. Why?

In addition to the above tests, the serum IgA test is used to evaluate IgA defi ciency. If your body does not make serum IgA, the TTG and EMA results are usually falsely negative. IgA defi ciency occurs in 3 – 5% of individuals with celiac disease. IgA deficiency alone may cause intestinal symptoms and you should discuss with your physician the need for upper endoscopy and intestinal biopsy (see glossary).

4. Do these tests work all the time?

The TTG and EMA tests are about 90% accurate for individuals who make serum IgA. They are not as accurate in children under age three years. Because the tests are not 100% accurate, anyone with a negative test result and symptoms suggestive of celiac disease should talk to a physician about an upper endoscopy and intestinal biopsy (see glossary).

5. What are the positive/negative levels for the test?

Positive and negative results values vary between test kits from different manufacturers. Each kit includes instructions on positive and negative results. The test results should be explained on the report provided by the laboratory. Your physician should discuss these results with you.

6. Is there a genetic test for celiac disease? Is this a better test?

No, there is no genetic test to diagnose celiac disease. Although there are tests for the HLA DQ2 and HLA DQ8 genes, they are costly and not readily available in Canada. Since about 40% of North Americans have these genes but only 0.5-1% of the population will develop celiac disease, having the gene does not mean you will develop celiac disease.

7. Are the tests useful if I have already started a gluten-free diet?

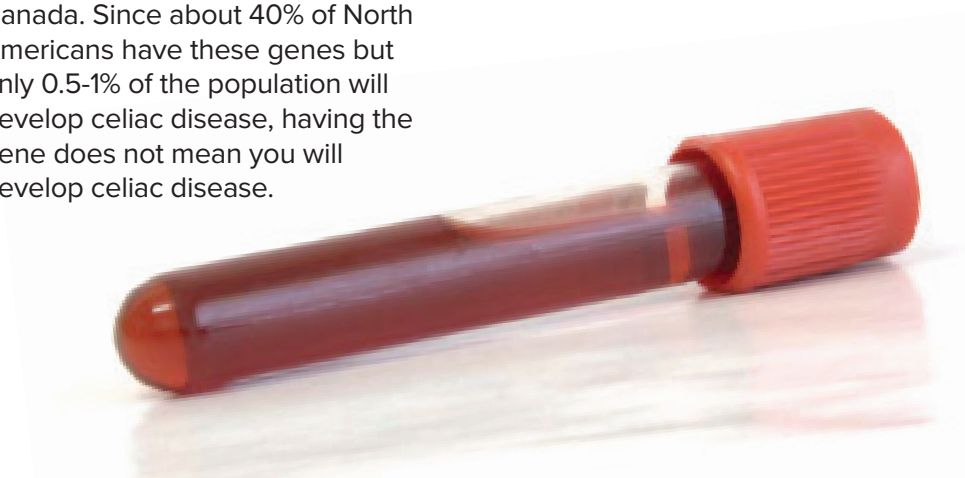
For the TTG and EMA blood tests to work properly, one must be eating gluten daily. For the genetic tests, it doesn't matter (see question #9). Your doctor may use these tests to monitor your response to the gluten-free diet after confi rmatory diagnosis

8. Why are blood tests considered to be only screening tests? Why do I need a biopsy too?

An intestinal biopsy must be performed because of the 10% possibility of a falsely positive blood test.

9. Can I start the gluten-free diet after testing positive on a blood test?

NO! You should continue to consume at least the equivalent of one to four slices of bread containing gluten every day until your endoscopy for the biopsy to be accurate.



10. If I don't want a biopsy, should I start a gluten-free diet?

All health choices are personal ones. A strict gluten-free diet is expensive, complicated to follow and must be followed for life to prevent complications of celiac disease. If you start a gluten-free diet without a biopsy, it may take a prolonged gluten challenge to correctly diagnose celiac disease. (See Question #9).

For these reasons the Professional Advisory Board of the Canadian Celiac Association strongly recommends an intestinal biopsy to diagnose celiac disease. Without a positive biopsy for celiac disease, you will not likely qualify for tax relief for the extra costs of a gluten-free diet.

11. Should my family be screened with a blood test?

First-degree relatives (parents, siblings, children) of people with celiac disease have a 10-15% risk of developing celiac disease at any age. Recommendations suggest screening should be carried out in relatives of individuals with celiac disease, especially if they have symptoms. Research has demonstrated that the risk of complications of celiac disease including osteoporosis, anemia, infertility, poor growth and certain cancers is reduced by a glutenfree diet in individuals with celiac disease.

12. Are the blood tests covered by government health insurance?

Health care is administered at the provincial level, and insurance coverage for these blood tests varies from province to province. In some provinces the tests are fully covered, while in others the patient is required to pay (up to a few hundred dollars).

13. Once I am biopsy confirmed and on a gluten-free diet, should I continue to get the blood tests?

This is a matter for you to discuss with your gastroenterologist or your family physician.

14. Can I join the CCA if I do not have celiac disease?

Yes. Celiac disease is not a prerequisite for joining the CCA.

15.What about home test kits?

Self-administered celiac testing kits are now on the market. The data on the accuracy of these tests is limited. A positive or negative test result does not confirm or exclude the diagnosis of celiac disease. Therefore home testing kits cannot replace an intestinal biopsy to diagnose celiac disease.

Individuals with symptoms should consult with their physician about referral for an intestinal biopsy. The only treatment for celiac disease is a strict gluten-free diet for life. This diet can be expensive and difficult to manage and a correct diagnosis is essential to determine that such a diet is required for life.

Treatment without biopsy confirmation is not recommended and initiating a gluten-free diet prior to biopsy can delay the diagnosis by altering the appearance of the biopsy.

Glossary

Gluten: Gluten is a general name for specific proteins in wheat, rye and barley.

Intestinal biopsy: The removal of small pieces of the lining of the small intestine for microscopic examination.

Upper endoscopy: This is an examination of the esophagus (swallowing tube), stomach and the duodenum (first portion of the small intestine). It is carried out with a small flexible tube inserted through the mouth and the patient is sedated for the procedure. Intestinal biopsies are obtained through the tube. Swallowing the tube may cause mild discomfort but the biopsies do not hurt.

For more information on celiac disease, dermatitis herpetiformis, and the gluten-free diet, please contact the national office or the local chapters of the Canadian Celiac Association.

CANADIAN CELIAC ASSOCIATION

www.celiac.ca

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