

1. Why shall I choose blood test for Celiac Disease?

Blood test is very convenient and much less invasive, reduce the discomfort and lesions, compared to upper endoscopy and intestinal biopsy. IgA-tTG, IgG- and IgA-Gliadin tests constitute valuable screening tools in the decision for more invasive intestinal biopsy. Also, they have been proven their values for the follow-up of CD and have revealed the high prevalence of undiagnosed CD. Therefore, a scientific journal suggested that rather than ordering a redundant panel, it is far better to start with IgA-tTG and follow up as necessary.

2. Why does my doctor order additional test?

Nowadays, blood test for Celiac Disease relies heavily on IgA levels in individuals. However, there is one IgA-deficient CD patient in every 40 CD patients while one in every 400 normal people. For these IgA-deficient individuals, an additional test, which is total IgA test, for IgA deficiency verification shall be used. The IgG against gliadin is especially useful in this case.



3. What do I have to be aware of after I get my test results?

IgA to tTG is recognized to be of over 90% accuracy and specificity internationally. But these parameters may be compromised in IgA-deficient individuals, individuals in mild disease or with karyotype abnormalities or with diabetes and children under three years of age. If anyone with a negative test result and symptoms suggestive of Celiac Disease, they should visit physicians and consider an upper endoscopy and intestinal biopsy.

Is Gluten the Culprit?



ELISA Celiac Screening (IgA-tTG / IgA-Gliadin / IgG-Gliadin)



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4. What if I have been following a gluten-free diet?

For all screening tests for Celiac Disease to work properly, one must eat gluten daily. If you have avoided gluten for a long period of time, there may be false negative results in all diagnostic methods for Celiac Disease. Some physicians recommend patients be on a gluten-containing diet for 2-4 weeks before serologic testing.



Packaged foods with one of these symbols are considered to be free from gluten.

5. Can I outgrowth Celiac Disease?

There is no scientific evidence that anyone can outgrow celiac disease once he/she is diagnosed with CD because it is a genetic disease. Hence, the genetically predisposed individuals will develop symptoms every time when they eat gluten-containing foods, even though there are asymptomatic CD patients, whereas all symptoms and damages of their bodies will be fully recovered when they avoid gluten for a certain period of time. Therefore, the CD patients are recommended to avoid gluten once they are diagnosed.

References
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 5. Reddick B.K., Crowell K. What blood tests help diagnose celiac disease? The Journal of Family Practice. Dec 2006. Vol. 55, No. 12.
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What is Celiac Disease (CD)?

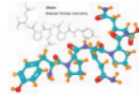
It is an intestinal disease with wide spectrum of clinical manifestations, ranging from asymptomatic to severe malabsorption, caused by a complex interplay of intrinsic and extrinsic factors.

Intrinsic factor	Extrinsic factor
Genetics	Presence of Gluten

In genetically susceptible individuals, their intestines are characterized by damaged mucosa and hence many secondary problems associated. Prolonged untreated celiac disease, even if clinically silent, predisposes to other autoimmune diseases.

What is gluten?

Gluten is a kind of proteins in wheat, rye and barley. In bread baking, it confers sticky property to a dough which allows it to rise, giving a spongy bread.



Celiac Disease – Many of them are silent!

Dr. Richard Logan proposed the idea of 'Celiac Iceberg' in 1991. It has been speculated that those with diagnosed celiac disease represent the tip of an iceberg – a much larger number with asymptomatic celiac disease who nonetheless are incurring intestinal damage or who have hidden nutritional deficiencies. Celiac disease can develop at any time in life. The average age at diagnosis in USA is 46; about 20% of cases are diagnosed after age 60.

Why shall I take a blood test?



American Gastroenterological Association (AGA) recommends using serologic markers to screen patients with either non-specific symptoms or medical conditions that increase the risk of celiac disease. Patients whose clinical profile causes a high index of suspicion and IgA serologic markers is negative should be tested for selective IgA deficiency.

AGA recommends relying on small intestinal biopsy for the final diagnosis. Both AGA and the North American Pediatric Society for Pediatric Gastroenterology state that IgA-tTG is one of the most useful serologic tests. Anti-Gliadin Antibody tests are considered as supportive allies of IgA-tTG in CD diagnosis. A tendency to develop celiac disease is inherited. Thus, parents, siblings and children of people with celiac disease have a 5% to 15% chance of developing the disease.

HK BioTek Celiac Screening Info

HK BioTek Celiac Screening employs the proprietary gauze strip which requires only pin-prick sample of blood. It is an easy and convenient way of blood sampling.



Since tissue transglutaminase (tTG) and gliadin are the main antigens in CD, the IgA against tTG and gliadin, and IgG against gliadin levels in blood are assessed by Enzyme-Linked Immunosorbent Assays (ELISA). The results indicate either positive or negative in each analyte.

In combination with other clinical observations, they provide you and healthcare professionals some reference data so as to find out more about your condition. A diet change that eliminates gluten-containing foods can result in total recovery of damaged intestine of individuals diagnosed with celiac disease.

Samples will be sent to US BioTek Labs for analysis. Each sample will be tested in duplicate as quality assurance.

US BioTek Labs has been accredited by COLA. Its latest technology with the highest sensitivity and it is the only lab giving reproducible results.

*According to the results of a study done by the Swedish health and lifestyle website, Kostkoll, evaluating the blood test results of five laboratories in Europe.



Celiac Screening Report



Each report will show the exact values and reference ranges for three markers will be provided. The result of each marker will clearly state either positive or negative. The result can give you more information about how your body reacts to gluten and show you the clue for further checkup.

Each report goes with a stack of client information sheets which explain the origins of the markers in our tests in detail, describe the closely related grains and suggest the local viable substitutions of wheat in both words and photos, offering solid supports to our clients.



What symptoms do CD patients have?

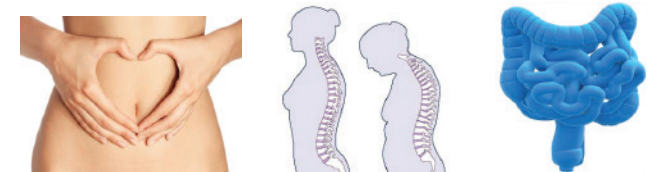
Apart from the typical symptoms, research papers pointed out other atypical symptoms of CD. Long-standing untreated celiac disease, even if clinically silent, predisposes for other autoimmune diseases.

Typical Symptoms	Atypical Symptoms	
	Secondary to Malabsorption	Independent of Malabsorption
<ul style="list-style-type: none"> - Chronic Diarrhea - Failure to Thrive - Abdominal Distention 	<ul style="list-style-type: none"> - Sideropenic Anemia - Short Stature - Osteopenia - Recurrent Abortions - Hepatic Steatosis - Recurrent Abdominal Pain - Gaseousness 	<ul style="list-style-type: none"> - Dermatitis Herpetiformis - Ataxia - Alopecia - Recurrent Aphthous Stomatitis - Epilepsy - Hypothyroidism / Hyperthyroidism - Dental Enamel Hypoplasia

Associated Conditions:

Possibly gluten dependent: Insulin-dependent diabetes mellitus, Autoimmune thyroiditis, Autoimmune hepatitis, Sjogren syndrome, Addison disease and Autoimmune emocytopenic diseases.

Gluten independent: Down syndrome, Turner syndrome, Williams syndrome, congenital heart defects and IgA deficiency.



What to do if I am a CD patient?

You shall visit your doctor to investigate if there is any other health problem associated and if you need to take any medication to relieve your current symptoms.

Starting from now, you have to avoid gluten in your daily diet, including wheat, barley, rye and, in very limited circumstances, oat. If you have any trouble on maintaining nutrition balance when adhering to the elimination diet, you shall consult nutrition specialists.