

Autoimmunity

Setting the standard

EliA™ celiac* disease serology testing:

Primary care considerations

Serology testing is the recommended way to appropriately support the diagnosis of celiac disease in high-risk patients of all ages with or without symptoms.^{1,2}

Blood testing in primary care can help:^{4,5}



Decrease time to celiac diagnosis



Ensure better patient outcomes

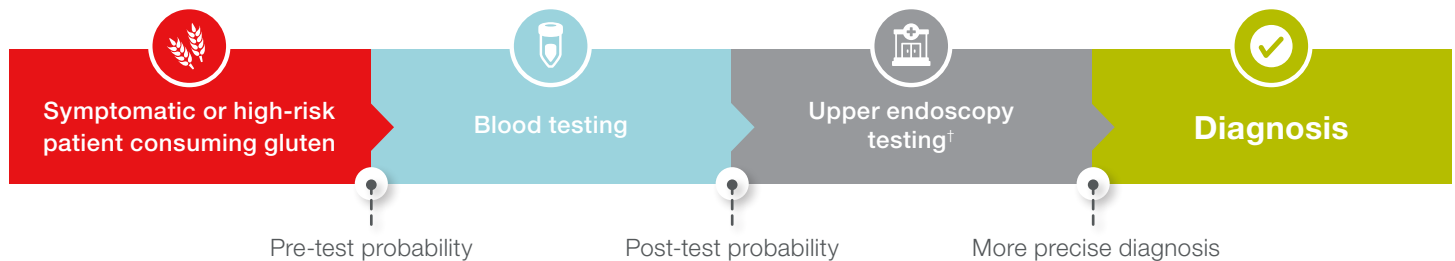


Generate appropriate gastroenterologist referrals

43%

of patients with celiac disease have yet to be diagnosed.³ Celiac disease can be challenging to diagnose, with the median diagnostic delay documented to be as long as 13 years. It can present with a wide variety of symptoms and disease comorbidities.^{2,4,5}

Steps to a celiac diagnosis^{1,2}



[†]2020 ESPGHAN guidelines suggest biopsy may be avoided for some patients with tTG-IgA values ≥ 10 times the upper limit of normal, provided endomysial antibodies (EMA-IgA) test positive in a second blood sample.¹

Consider a celiac disease serology profile:^{1,2}

tTG-IgA combined with total IgA is recommended as the **most accurate and cost-effective** initial testing for celiac disease.^{1,2}

Tissue transglutaminase (tTG) IgA[†]

+

Total IgA



If total IgA is absent/low, suspect IgA deficiency and perform IgG based celiac testing



Deamidated gliadin (DGP) IgG (+/- tTG IgG)

[†]Testing with deamidated gliadin (DGP-IgA and DGP-IgG) alongside tTG-IgA may also improve sensitivity in children under 2.^{2,5}

Consider testing for celiac disease with the following symptoms, signs, and conditions^{1,2}

Gastrointestinal symptoms	Extraintestinal symptoms	High risk conditions (+/- symptoms)
Diarrhea	Abnormal liver function tests	1st degree relative with celiac disease
Steatorrhea	Iron deficiency anemia	Type 1 diabetes
Weight loss	Bone disease	Autoimmune thyroid disease
Bloating +/- flatulence	Skin disorders	Trisomy 21
Abdominal pain	Other protein manifestations	Turner syndrome

Celiac disease profile interpretation considerations^{1,2}

Total IgA	tTG-IgA	DGP IgG (+/- tTG-IgG)	Considerations for patients currently consuming gluten
normal	+		- Supportive of the diagnosis of celiac disease - Continue gluten containing diet and refer to gastroenterologist for diagnosis
normal	-		With high suspicion of celiac disease, consider gastroenterologist referral With low suspicion of celiac disease and no high-risk factors, celiac disease less likely. Consider other diagnoses If asymptomatic but in a high-risk group, rescreen at a later time and/or if symptoms develop
low/ absent	- reflex → -	-	- High suspicion of IgA deficiency - See considerations above
low/ absent	- reflex → +	+	- High suspicion of IgA deficiency - Continue gluten-containing diet - Refer to gastroenterologist for diagnosis

Note: As with all diagnostic testing, any diagnosis or treatment plan must be made by the clinician based on test results, individual patient history, the clinician's knowledge of the patient, as well as their clinical judgment.

Diagnostic accuracy of tTG-IgA testing can vary dramatically by test.²

tTG-IgA testing with EliA Celikey* IgA demonstrates high diagnostic accuracy in clinical practice.⁶

*Official product names for celiac disease serology testing mentioned within this document include anti-tissue transglutaminase (tTG) tests EliA Celikey IgA and EliA Celikey IgG and deamidated gliadin (DGP) tests EliA Gliadin^{DP} IgA and EliA Gliadin^{DP} IgG.

References

1. Husby S, et al. European Society Paediatric Gastroenterology, Hepatology and Nutrition Guidelines for Diagnosing Coeliac Disease 2020. J Pediatr Gastroenterol Nutr. 2020 Jan;70(1):141-156. doi: 10.1097/MPG.0000000000002497. PMID: 31568151. 2. Rubio-Tapia A, et al.; American College of Gastroenterology. ACG clinical guidelines: diagnosis and management of celiac disease. Am J Gastroenterol. 2013 May;108(5):656-76; quiz 677. doi: 10.1038/ajg.2013.79. Epub 2013 Apr 23. PMID: 23609613; PMCID: PMC3706994. 3. Choung, Rok Seon et al. "Less Hidden Celiac Disease But Increased Gluten Avoidance Without a Diagnosis in the United States: Findings From the National Health and Nutrition Examination Surveys From 2009 to 2014." Mayo Clinic proceedings. S0025-6196(16)30634-6. 5 Dec. 2016. doi:10.1016/j.mayocp.2016.10.012. 4. Fuchs, Valma et al. "Delayed celiac disease diagnosis predisposes to reduced quality of life and incremental use of health care services and medicines: A prospective nationwide study." United European gastroenterology journal vol. 6.4 (2018): 567-575. doi:10.1177/2050640617751253. 5. Silvester, J. A new diagnostic paradigm for celiac disease. Contemporary Peds Journal, Vol 37, No12. 2020. https://www.contemporarypediatrics.com/view/a-new-diagnostic-paradigm-for-celiac-disease. 6. Werkstetter KJ, Korponay-Szabó IR, et al.; ProCeDE study group. Accuracy in Diagnosis of Celiac Disease Without Biopsies in Clinical Practice. Gastroenterology. 2017 Oct;153(4):924-935. doi: 10.1053/j.gastro.2017.06.002. Epub 2017 Jun 15. PMID: 28624578.

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