



# U.S. Preventive Services Task Force Topic Development Background Document

**Title:** Screening for Celiac Disease

**Literature surveillance date:** May 2022

**Recommendation Summary:** In 2017, the USPSTF concluded that the current evidence was insufficient to assess the balance of benefits and harms of screening for celiac disease in asymptomatic persons (Grade: **I statement**). This recommendation applies to adults, adolescents, and children who do not have signs or symptoms of celiac disease.

**Research Gaps from Previous Task Force Review:** The 2017 recommendation statement was based on a systematic review with a search through June 2016. The Task Force found insufficient evidence and the need for more research on:

- The effectiveness of screening for celiac disease in asymptomatic adults, adolescents, and children with regard to morbidity, mortality, or quality of life;
- The effectiveness of targeted screening in persons who are at increased risk for celiac disease;
- The accuracy of screening tests in asymptomatic persons, particularly those with risk factors;
- The effectiveness of treatment of screen-detected, asymptomatic celiac disease to improve morbidity, mortality, or quality of life compared with no treatment or treatment after clinical diagnosis; and
- The harms of screening for or treatment of celiac disease.

**Summary of New Evidence:** Literature scans were conducted in the MEDLINE and PubMed databases and the Cochrane Library. Results were limited to English language, core and specialty journals, 2016 to present.

## Screening

A 2021 study reports preliminary results of a mass screening program in Colorado. The Autoimmunity Screening for Kids (ASK) study screened children aged 1-17 for celiac disease and type 1 diabetes simultaneously.<sup>1</sup> This study is ongoing; followup of children diagnosed with celiac disease will evaluate symptoms, growth parameters, quality of life, and mental health to inform the potential benefits and harms of mass screening. A 2018 study administered a questionnaire to adult celiac patients diagnosed in childhood and reports current self-reported health, health concerns, quality of life, dietary adherence, and anxiety for patients diagnosed by screening compared to those diagnosed due to clinical suspicion.<sup>2</sup>

## Screening Test Accuracy

Seven studies report on the accuracy of serum tests to detect celiac disease, including four in children,<sup>3-6</sup> two in adults,<sup>7,8</sup> and one in children and adults.<sup>9</sup>

## Treatment

Three RCTs screened asymptomatic patients with type 1 diabetes for celiac disease and randomized those who tested positive to a gluten-free or regular diet.<sup>10-12</sup> One trial reports on hypoglycemic episodes, HbA1c, height (in pediatric participants), weight, serum nutrient levels, bone mineral content and density after one year.<sup>10</sup> The CD-DIET reports on adherence, TTG IgA, generic and diabetes HRQoL, and self-perceived wellness in children and adults after one year.<sup>11</sup> The third trial reports on HbA1c and adverse events in children and adults after one year.<sup>12</sup> A 20-year followup of 25 celiac patients



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diagnosed via population-based screening in childhood reports adherence to a gluten-free diet and development of other autoimmune diseases.<sup>13</sup>

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