



Celiac Disease - What is it?

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What is Celiac Disease

Celiac disease (CD) is a permanent intolerance to gluten, a protein found in various wheats (e.g., durum, kamut, spelt), rye, barley and triticale. Gluten consumption causes damage to the absorptive surface of the small intestine and can result in malnutrition, anemia, nutritional deficiencies and an increased risk of other autoimmune diseases and some cancers of the gut.

Dermatitis herpetiformis (DH) is celiac disease of the skin, and is characterized by blistering, intensely itchy skin. The rash has a symmetrical distribution and is most frequently found on elbows, knees, buttocks, back of the neck, scalp and upper back. People with dermatitis herpetiformis can have gastrointestinal damage without obvious symptoms.

Genetics

Celiac disease is an inherited condition. First degree relatives (parents, brothers, sisters and children) of individuals with celiac disease are at the highest risk of having unrecognized celiac disease (5-15%). It can appear at any time in the life of a person with a hereditary predisposition to it. Environmental factors such as emotional stress, pregnancy, surgery, or an infection (e.g., travellers' diarrhea, pneumonia) can sometimes trigger the onset of symptoms.

Prevalence

Recent research has revealed that celiac disease affects 1:100-200 people in the United States (1,2). Growing awareness of celiac disease, earlier diagnosis and improved blood screening point to the likelihood of similar prevalence figures in Canada.

Symptoms

The number and severity of symptoms associated with untreated celiac disease can vary greatly from person to person. In some cases, undiagnosed adults with celiac disease have only iron deficiency anemia without digestive or intestinal symptoms.

The similarity of the symptoms of celiac disease to those of other conditions often leads to a misdiagnosis of irritable bowel syndrome, lactose intolerance, chronic fatigue syndrome or diverticulosis, thus delaying the diagnosis of celiac disease. The presence of obesity does not exclude the diagnosis of celiac disease.

The following symptoms may occur individually or in combination in children or adults.

- indigestion and nausea
- abdominal bloating, pain, cramping or gas
- lactose intolerance
- anemia – iron, folate or B12 deficiency
- extreme weakness and fatigue
- migraine
- bone/joint pain
- swelling of ankles and hands
- recurring/persistent diarrhea
- constipation
- weight loss
- deficiency of vitamins A, D, E, and K
- mouth ulcers/canker sores
- depression
- menstrual irregularities
- infertility/miscarriages

Additional symptoms in children:

- delayed growth
- irritability and behavioural changes
- vomiting
- delayed puberty
- dental enamel abnormalities



Associated Conditions

Celiac disease often occurs with other diseases. If you have any of the following conditions, consider having your blood tested for celiac disease.

- family history of celiac disease
- type 1 diabetes
- autoimmune hepatitis
- lymphoma
- infertility
- osteoporosis
- Down Syndrome
- Turner Syndrome
- unexplained liver enzyme elevations

Diagnosis

Recent Canadian and U.S. studies report significant delays in diagnosis (3,4). Excellent blood tests to detect endomysial (EMA) and tissue transglutaminase (tTG) antibodies are now available to screen for celiac disease in people with mild or atypical symptoms and those in high risk groups. Such tests may suggest that a person has celiac disease, but they do not replace the need for an intestinal biopsy.

Small intestinal biopsies are the ONLY definitive means of diagnosing celiac disease.

A gluten-free diet should not be started before the blood tests and biopsies are done, since it can interfere with making an accurate diagnosis.



Treatment

The only treatment for celiac disease is a strict gluten-free diet for life.

A strict gluten-free diet will enable recovery of the gut, and may reduce the risk of developing other associated diseases and complications.

Because of the complexity of the gluten-free diet, patients should be referred to a registered dietitian with expertise in celiac disease for nutrition assessment, education and follow-up. Regular follow-up with your physician is also recommended.

All persons with celiac disease are encouraged to join the Canadian Celiac Association and their local chapter for valuable practical information and ongoing support.

The safety of oats in celiac disease has been extensively investigated. Clinical studies have shown that small amounts of pure, uncontaminated oats are safe for most adults and children with celiac disease. The availability of pure oats remains a problem.

Most commercially available oats are contaminated with wheat or barley. However, individuals with celiac disease must ensure that the oats they are eating are free from gluten contamination.

For more information on celiac disease and the gluten-free diet, contact the Canadian Celiac Association or go to the CCA website: www.celiac.ca.

Biography

1. NIH consensus document web link: http://consensus.nih.gov/cons/118/118cdc_intro.htm
2. Fasano A, Berti I, Gerarduzzi T, et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States. Arch Intern Med 2003; 163:286-292.
3. Cranney A, Zarkadas M, Graham ID, Switzer C. Canadian Health Survey – Ottawa Pilot. Biomed Central 2003; 3:8.
4. Green PHR, Stavropoulos SN, Panagi SG, et al. Characteristics of adult celiac disease in the USA: results of a national survey. Am J Gastroenterol 2001;96:126-131.
5. Green PHR, Jabri B. Celiac Disease. Lancet. 2003, 362: 383-391.

CCA Chapter Locations

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.

- Vancouver
- Victoria
- Kamloops
- Kelowna
- Calgary
- Edmonton
- Saskatoon
- Regina
- Western Manitoba
- Manitoba
- Thunder Bay
- Sudbury
- London
- Kitchener-Waterloo
- Hamilton
- Toronto
- St. Catharines
- Peterborough
- Belleville-Quinte
- Kingston
- Ottawa
- Quebec
- Fredericton
- Saint John
- Moncton
- Halifax
- Charlottetown
- St. John's

