

“The classical presentation of diarrhea and malabsorption are less common, and atypical and silent presentations are increasing.”

— National Institutes of Health Consensus Development Conference Statement on Celiac Disease, 2004

Symptomatic (intestinal related classical symptoms)

- diarrhea (recurring or persistent)
- constipation
- weight loss (presence of obesity does not exclude the diagnosis)
- abdominal pain (bloating, cramping, or gas)

Extra-intestinal (extra-intestinal symptoms secondary or independent of malabsorption)

- bone pain or bone loss (related to bones - osteoporosis, arthritis and joint pain)
- chronic fatigue (weakness, extreme lethargy, and depression)
- skin problems (intense burning and itching rash- DH)
- dental enamel defects
- lactose intolerance
- abnormal liver enzymes
- swelling of ankles and hands
- neurological symptoms such as paresthesias, ataxia, seizures and migraines
- mouth ulcers
- deficiency of vitamins A, D, E, K
- anemia (deficiency of iron or folic acid (often both) or vitamin B12)
- related to reproductive system (infertility, miscarriages, and menstrual irregularities)

Silent

Patients are still found to have the kind of damage in their small intestine that is typically associated with celiac disease.

Common findings include:

- iron deficiency with or without anemia
- impaired physical fitness, “feeling always tired,” and easily fatigued during exercise
- reduced bone mineral density
- behavioral disturbances, such as depression, irritability, or impaired school performance in children

Associated Conditions

- dermatitis herpetiformis
- Type 1 diabetes
- autoimmune thyroid disease
- osteoporosis
- miscarriages and infertility
- autoimmune hepatitis
- Sjogren’s syndrome
- Addison’s disease
- IgA deficiency
- Down syndrome
- Turner syndrome

Children Specific Symptoms

Classic Considerations

- abdominal distension
- anorexia
- diarrhea (chronic)
- failure to thrive
- irritability
- wasting of fat and muscle

Non-Classic Considerations

- anemia (usually persistent or recurrent iron deficiency)
- arthritis and chronic abdominal pain
- constipation
- delayed puberty

- dental enamel defects
- DH
- abnormal liver enzymes
- short stature
- vomiting



STEP 2

Diagnostic Guidelines

Serologic Tests

Screening in patients with celiac disease should consist of:

- 1 IgA endomysial antibodies (EMA)
- 2 IgA tissue transglutaminase antibodies (TTG)
- 3 Total IgA level (If 1 and 2 are negative but IgA level is low, then celiac disease is strongly suspected)

For an individual with suggestive symptoms, four scenarios are possible. First, the individual might have selective IgA deficiency. Second, the other serological test could be conducted and/or a small bowel biopsy could be performed. Third, the patient may not have celiac disease. Fourth, the patient may be on a self-imposed gluten-free diet which can result in false negative tests.

Biopsy

Diagnosis of celiac disease can only be confirmed with a small bowel biopsy:

- 1 Patient should be referred to a gastroenterologist for this procedure.
- 2 Patients should have 4-6 samples taken from the small bowel during the biopsy in order to confirm the presence or absence of celiac disease.
- 3 Patients should **NOT** start a gluten-free diet until after they have been biopsied. Commencement of a gluten-free diet prior to biopsy could rejuvenate the small bowel villi and result in a false negative diagnosis.

STEP 3

Treatment Guidelines

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

Following a diagnosis of celiac disease, patients should be referred to a dietitian for more information and guidance on following a gluten-free diet.

The gluten-free diet can be complicated. Obvious sources of gluten include wheat, rye, triticale, barley and oats; however, persons with celiac disease must be alert to hidden sources of gluten. Such hidden sources include HVP/HPP (hydrolyzed vegetable/plant protein); malt; spelt; kamut; and certain drug products.

The diet should never be started before a small intestinal biopsy is positive for celiac disease.

Today's processed and packaged foods have many hidden sources of gluten which can be unintentionally ingested. Particular care should be taken in the selection of soups, luncheon meats and sausages.

The person with celiac disease **must read the list of ingredients on all labels, every time.**

There is a great variation in sensitivity to gluten among those with celiac disease, and although one may have no obvious symptoms, damage to the intestinal lining may still occur.



For more information on the gluten-free diet, please visit www.celiac.ca and access the nutrition section. (December 2005 - CCA Celiac Resource kit for Health Professionals will be available on-line)



Celiac Disease

Questions & Answers

What is celiac disease?

A medical condition in which the absorptive surface of the small intestine is damaged by a substance called gluten. This results in an inability of the body to absorb nutrients: protein, fat, carbohydrates, vitamins and minerals, which are necessary for good health.

Although statistics are not readily available, it is estimated that 1 in 100-200 persons in Canada are affected by celiac disease.

How is it diagnosed?

Celiac disease can be screened for through a blood test; however, an absolute diagnosis requires a small bowel biopsy (done by a gastroenterologist). **Do not start the gluten-free diet prior to seeing a gastroenterologist and having a small bowel biopsy conducted.**

What is the treatment?

At present, there is no known cure for celiac disease; however, it can effectively be treated by following a gluten-free diet for life.

What is gluten?

Gluten is a protein found in wheat, rye, triticale, and barley. In the case of wheat, gliadin has been isolated as the toxic fraction. It is the gluten in the flour that helps bread and other baked goods bind and prevents crumbling. This feature has made gluten widely used in the production of many processed and packaged foods.

Celiacs must be alert to hidden sources of gluten such as HVP/HPP (hydrolyzed vegetable/plant protein); malt; spelt; kamut; and certain drug products.

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Where Can I Get More Information?

The Canadian Celiac Association is a national organization dedicated to providing services and support to persons with celiac disease and dermatitis herpetiformis. The Edmonton Chapter can be contacted at 482-8967 or visited on the web at www.celiac.edmonton.ca.

The Edmonton Chapter provides diverse services to help any person with celiac disease adjust to their new lifestyle:

- Anti-Panic Seminars for the newly diagnosed
- Cooking Classes
- Gluten-Free Banquets
- Cycling for Celiacs Fundraiser
- Children's Program
- Information Packages
- Sales of Cook Books and other Informative Books
- Updates on Ingredients
- Celiac Friendly Restaurant Contacts

