

Celiac Disease and the Rise of Gluten-Free Products

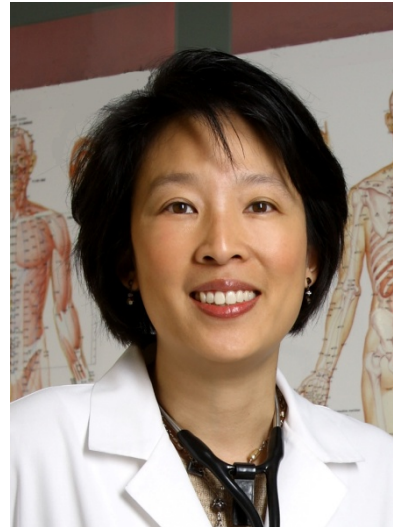
Susan Locke, M.D., Healthnetwork Medical Director

Celiac disease was once thought to be rare in the United States. Researchers from Johns Hopkins recently reported that it now affects about 1 in 100 Americans. Celiac disease is a condition where the immune system responds abnormally to a protein called gluten leading to damage of the lining of the small intestine. The small intestine is responsible for absorbing food and nutrients, so damage can lead to malabsorption. Celiac disease is also known as gluten sensitive enteropathy, celiac sprue or non-tropical sprue.

Celiac disease can occur in people of any age and seems to affect both genders equally. It is unclear what exactly causes a person to be sensitive to gluten, but it is thought to be a combination of environmental and genetic factors. For most people with celiac disease, strict adherence to a gluten-free diet resolves their celiac symptoms within several months or years. A gluten-free diet can also reverse small-intestine damage in up to 95% of children with celiac disease.

Celiac symptoms can vary from one person to another and, in its mildest form, can be asymptomatic. Even with no symptoms, it is possible to have some degree of malabsorption. The usual symptoms of gluten sensitivity include:

- Diarrhea
- Excessive gas
- Weight loss
- Abdominal discomfort
- Other signs and symptoms caused by vitamin and nutrient deficiencies.



To find out how celiac disease is diagnosed, we asked **Linda Lee, M.D.**, Director, Johns Hopkins Integrative Medicine & Digestive Center and Clinical Director, Division of Gastroenterology and Hepatology at **Johns Hopkins Hospital**.

How is celiac disease diagnosed? Celiac disease is diagnosed by blood tests and biopsies taken from the small intestine, usually during upper endoscopy. The hallmark findings are an elevated antibody to tissue transglutaminase (IgA) and evidence of inflammation in the lining of the small intestine, with partial or complete flattening of the intestinal villi (finger-like projections of the absorptive lining of the small intestine).

What is “latent” celiac disease? Latent celiac disease refers to those individuals who had celiac disease diagnosed earlier in life, but who later become asymptomatic even when exposed to gluten in the diet. Sometimes the term is also used to refer to those

who earlier in life had negative testing for celiac disease but who now have developed the symptoms, positive blood tests and biopsy results for celiac disease.

What is “silent” celiac disease? These are *asymptomatic* individuals who are incidentally found to have elevated titers of the antibody and histological abnormalities associated with celiac disease on their biopsies taken from the small intestine.

What tests should be done for malabsorption? Causes of intestinal malabsorption include celiac disease, pancreatic enzyme deficiency, small bowel bacterial overgrowth, or other inflammatory conditions affecting the small intestine. Regardless of the cause, the gold standard test for malabsorption is a 72-hour stool collection for fecal fat. This requires collecting the stool for 72 hours while the individual ingests a high fat diet. Typically, the small intestine is very efficient at absorbing fat from the diet. When malabsorption is present, excess fat is detected in the stool. Sometimes a spot test is done for fecal fat, but this is accurate when performed by highly skilled and experienced lab technicians. There are other tests that can be done to determine the cause of the malabsorption depending on what cause is suspected. There are also other blood tests that can suggest malabsorption exists, but they are not diagnostic. These tests include anemia, iron deficiency and vitamin B12 deficiency, for example.

Are there other tests that should be done in someone who has gluten sensitivity? There are no tests that are diagnostic of gluten sensitivity. This is a term that is applied to a set of symptoms triggered by the ingestion of gluten in the absence of celiac disease. Gluten sensitivity may exist, but the symptoms are easily confused with irritable bowel syndrome or ingestion of too many poorly absorbed carbohydrates, like lactose, fructose or sorbitol, for example.

The key to treating celiac disease is complete elimination of gluten in the diet for life. Gluten is found in wheat, rye and barley. Gluten is also a hidden component of a large number of prepared foods. Here are some general tips:

- Avoid foods containing wheat, rye, barley, malt, brewer’s yeast and oats (unless labeled gluten-free)
- Naturally gluten free foods include rice, wild rice, corn and potatoes
- READ LABELS on prepared food and condiments
- Discuss with your physician the need for calcium and vitamin D supplements.

There are several conditions that are more common in people with celiac disease. These conditions include:

- Osteopenia or osteoporosis
- Iron deficiency anemia
- Diabetes Mellitus
- Thyroid problems – usually hypothyroidism
- Skin disease called “dermatitis herpetiformis”
- Nervous system disorders
- Liver disease.

The good news is that most people improve on a gluten-free diet. Most grocery stores and many restaurants now have gluten-free food, which makes life with gluten sensitivity much more manageable.

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For more information on Celiac Disease or to schedule an appointment with a gastroenterologist, please call Healthnetwork at 866-968-2467 or 440-893-0830 or email us at help@healthnetworkfoundation.org.