

GLUTEN TOLERANCE

Who needs to be gluten free (GF)?

Gluten is an insoluble protein found in wheat and other grains. **Celiac disease (CD)** is a genetic disease in which gluten damages the lining of the small intestine and interferes with the absorption of nutrients from food. It is sometimes called celiac sprue, sprue or nontropical sprue. CD was once considered a rare childhood disease, but now we realize it affects an estimated one in 133 Americans. It is estimated that 1% of the population has CD, and that 5-10% of people with type 1 diabetes have it. 98% of the people with Celiac disease are not diagnosed yet (this is based on results from screening).

For people with CD, the immune system mistakenly sees gluten as a threat and sets out to destroy it by making antibodies that attack the lining of the small intestine where nutrient absorption takes place. This results in “flattened villi: (villi are the hair-like projections responsible for intestinal absorption), the hallmark of the disease.

The only treatment available for CD at this time is a diet free of gluten. Because wheat is so prevalent in our usual diet, this means a significant change in eating habits. Some people mistakenly call this a wheat allergy, but an actual allergy to wheat is very rare and has a respiratory response.

There are also people with a **gluten intolerance**. People with a gluten intolerance may have gastrointestinal discomfort with wheat, but it does not actually damage the intestines as it does in CD. These people can choose their foods to minimize discomfort. This is why I recommend starting with a blood test – it will help you determine what *your* needs are.

Symptoms of Celiac Disease

The **majority** of people with CD are not aware of having symptoms. Of the people who experience symptoms, only one third have the classical symptoms of diarrhea, constipation, other GI symptoms (bloating, gas, discomfort), failure to thrive or short stature. Two thirds of the people with celiac have symptoms that are less obvious. Symptoms of celiac disease may include one or more of the following:

- gas
- recurring abdominal bloating and pain
- chronic diarrhea
- constipation
- pale, foul-smelling or fatty stool
- weight loss/weight gain
- fatigue
- unexplained anemia (low count of red blood cells causing fatigue)
- low blood levels of folate, vitamin B12, magnesium and phosphorus
- lactose intolerance
- bone or joint pain
- osteoporosis, osteopenia
- depression or irritability
- tingling numbness in the legs (from nerve damage)
- muscle cramps
- seizures
- missed menstrual periods (often because of excessive weight loss)
- infertility, recurrent miscarriage
- delayed growth
- failure to thrive in infants
- pale sores inside the mouth, called aphthous ulcers
- tooth discoloration or loss of enamel
- itchy skin rash called dermatitis herpetiformis*

*Dermatitis Herpetiformis is a severe itchy, blistering skin manifestation of CD. Not all people with CD develop it. The rash usually occurs on the elbows, knees and buttocks.

Some people develop celiac disease as children, others as adults. The length of time a person is breastfed, the age a person started eating gluten-containing foods and the amount of gluten-containing foods one eats are three factors thought to play a role in when and how celiac disease appears. Some studies have shown that the longer a person was breastfed, the later the symptoms of celiac disease appear and the more uncommon the symptoms.

Testing for Celiac Disease

At this time there is no routine screening for CD, and it is under diagnosed. CD symptoms can be attributed to other problems which complicates diagnosis. Because so much of our current understanding is based on recent research, most doctors and health care providers are not knowledgeable about this disease. The information that was taught during their training was incomplete compared to what we know now.

The initial screen for CD is a blood test (details below). Request testing if you have symptoms of CD if a family member has CD (since it is genetic). People at risk could also have unexplained iron deficiency anemia, recurrent migraines, Sjögren's syndrome, and type 1 diabetes mellitus. CD is sometimes misdiagnosed as irritable bowel syndrome, chronic fatigue syndrome or fibromyalgia.

The blood test for CD identifies the antibodies that the body secretes when gluten irritates or damages the small intestine. A celiac panel includes

1. Anti-gliadin antibodies (AGA) both IgA and IgG
2. Anti-endomysial antibodies (EMA) – IgA
3. Anti-tissue transglutaminase antibodies (tTG) – IgA
4. Total IgA level

(your physician can get more information about testing for CD at::

http://www.celiacdiseasecenter.columbia.edu/C_Doctors/C05-Testing.htm)

This test will not be accurate if you have already stopped eating gluten. The blood test is usually followed by a biopsy before a diagnosis of celiac is made. The final proof is the reversal of symptoms on a Gluten Free (GF) diet.

It can be tempting to try a gluten free diet first, but if you feel better it will be hard to go back on gluten to get an accurate test. While the blood test can still yield both false positives and negatives, it is still considered the best starting place in diagnosing CD. If you know you don't tolerate wheat but don't get tested for CD, then you will never be sure if you have CD and require a totally GF diet or are just intolerant and able to tolerate it in small amounts.

People with celiac disease tend to have other autoimmune diseases. The connection between CD and these diseases may be genetic. These diseases include:

- thyroid disease
- systemic lupus erythematosus
- type 1 diabetes
- liver disease
- collagen vascular disease
- rheumatoid arthritis
- Sjögren's syndrome

Resources & References

I have more detailed information available with detailed food lists and how to keep a GF diet healthy.

<http://digestive.niddk.nih.gov/ddiseases/pubs/celiac/> <http://www.glutenfreelife.co.uk/>

www.celiac.com www.celiac.org www.NorthBayCeliacs.org

sample 3 day menu available at www.ciafoods.com

Celiac Disease: The Hidden Epidemic by Dr. Peter Green

Gluten Free Diet – A Comprehensive Resource Guide, by Shelly Case

Gluten Free Living Magazine

The Gluten-Free Bible by Jax Peters Lowell