

CELIAC DISEASE AND THE GLUTEN FREE DIET

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What is Celiac Disease?

- * Autoimmune disease that destroys the villi along the lining of the small intestine upon the intake of gluten containing products
- * Proteins of wheat related grains are resistant to enzyme peptidases which normally breakdown proteins.

*Tests for diagnosis include

1. Immunoglobulin A [IgA]
2. Antihuman tissue transglutaminase [tTG-IgA] – most sensitive test available
3. IgA Endomysial antibody immunofluorescence [EMA-IgA] – specific for Celiac Disease but not as sensitive as tTG-IgA
4. Biopsy of the lining within the small intestine
5. Genetic markers of DQ2 and/or DQ8, saliva test

Statistics

- * The average diagnosis of Celiac Disease takes 9 – 11 years as symptoms are often treated, leaving the cause unknown or misdiagnosed for years.
- * The average child visits 8 physicians before being diagnosed (University of Chicago Celiac Disease Center)
- * Prevalence of Celiac Disease is 1 in 133 with 97% of those undiagnosed.

Related diseases

* **Dermatitis Herpetiformis**

- ▣ Form of Celiac Disease or gluten sensitivity involving the skin
- ▣ Characterized by bilateral, itchy, blistering skin rash and immunoglobulin A deposits on the skin

* **Irritable Bowel Syndrome**

- ▣ Characterized by cramping, diarrhea, bloating, gas, constipation, and abdominal pain.
- ▣ If fatigue and weight loss accompany and serology has not been done for Celiac Disease, testing is suggested.
- ▣ 37% of surveyed adults with Celiac Disease were initially diagnosed with IBS

Signs & Symptoms

*Gastrointestinal

- Flatulence
- Constipation
- Bloating
- Indigestion
- Steatorrhea

* Nongastrointestinal

- Anemia
- Bone disease (osteoporosis)
- Dental enamel defects
- Neurological conditions (migraines- ataxia)
- Vitamin & mineral deficiencies (Calcium, Vitamin D, Iron, Folate)
- Temporary lactose intolerance (resolves after GF diet & healing)

Important Points to Remember

*** Trial and error along with label reading are key to a successful gluten free diet.**

*** This is an all or nothing diet. Any gluten intake (even in small amounts) results in damage to the intestinal lining and a shortening of life overall.**

Grains & Ingredients to avoid

*Wheat, derivatives of wheat, & the Labeling law

- ❑ Spelt, kamut, einkorn, & emmer
- ❑ Wheat bran, wheat germ, cracked wheat, & hydrolyzed wheat protein
- ❑ Bromated flour, bulgur, Durum flour, enriched flour, farina, flour, gluten flour, graham flour, plain flour, self-rising flour, semolina, & white flour
- ❑ Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA) states that wheat or protein derived from wheat within a food or an ingredient used in a food must clearly show the word “wheat” on the label. Rye, Barley & oat are currently not required on a label by law, but a gluten free labeling law is in process.

Grains & Ingredients to avoid cont.

*Barley, malt products

- Malt, malt syrup, malt extract, malt beverages, malted milk, malt vinegar
- Beer, ale, stout, & other fermented beverages

*Rye

* Oats, cross contamination

While oats are not directly related and can often be tolerated by individuals with Celiac Disease, cross contamination within the route of farming to processing has shown to leave 3-8000ppm of gluten within the average top brands of oats.

Convenience Products to be careful of:

- ▣ 1. Bouillon
- ▣ 2. Brown rice syrup
- ▣ 3. Candy
- ▣ 4. Cold cuts, hot dogs, salami, sausage
- ▣ 5. Communion wafers
- ▣ 6. French fries
- ▣ 7. Gravies
- ▣ 8. Imitation fish or meats
- ▣ 9. Matzo, matzo meal
- ▣ 10. Rice mixes
- ▣ 11. Sauces
- ▣ 12. Seasoned tortilla or potato chips
- ▣ 13. Self-basting turkey
- ▣ 14. Soups
- ▣ 15. Soy sauce
- ▣ 16. Vegetables in sauce

Medications & Dietary Supplements

* May contain fillers or coating derived from a gluten-containing grain. Check with pharmacist, doctor, and/or the manufacturer. Many prescriptions can be formulated at specialized pharmacies.



Safe grains and products

- ▣ Plain Rice (white, sweet, brown, wild, jasmine, basmati)
- ▣ Amaranth
- ▣ Buckwheat
- ▣ Corn
- ▣ Finger millet (Ragi)
- ▣ Job's tears
- ▣ Millet
- ▣ Montina (Indian rice grass)
- ▣ Quinoa
- ▣ Sorghum
- ▣ Teff
- ▣ Flours made from Potato, tapioca, beans, & peas
- ▣ Many convenience products are now available

Where can these products be found?

*Local Natural Foods markets

- Giant Eagle
 - Mustard Seed
 - Buehler's
 - Vital Choice
 - Heinen's
 - Many local natural food markets
- Many grocers will get products in upon request

*Online sources

There are countless resources on the web under “gluten free,” from support groups and shopping to books, magazines and recipes.

Online Resources

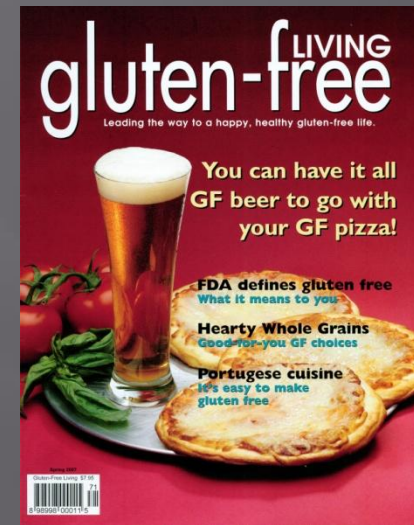
- **National Foundation for Celiac Awareness. 2008.**
http://www.celiaccentral.org/What_is_Celiac_/13/gclid_COLLmc7u9JMCFQNHFQod43r4Vw/
- **The University of Chicago Celiac Disease Center.**
<http://www.celiacdisease.net/living-with-celiac-disease>
- **American Dietetic Association. ADA Nutrition Care Manual. Chicago: American Dietetic Association, 2006. Online resource through www.eatright.org. Accessed June 14, 2008.**
<http://nutritioncaremanual.org.libauth.tri-c.edu:2048/index.cfm?Page=Diseases&topic=18174&headingid=25704>
- **Natures Food Market. 1999-2008.**
http://www.naturesfoodmarket.com/search_results.asp?ct=All&site_search_qu=Gluten+free&storeID=BC44A79306B649DBB25422FBCD521F36
- **Whole Foods Market. 2000-2007.**
<http://www.wholefoodsmarket.com/specialdiets/gluten-free/index.html>
- **glutenfree.com. 2008.** <http://www.glutenfree.com/>

Books/Magazines

- “Celiac Disease Nutrition Guide Second Edition,” Tricia Thompson, MS, RD

- “Gluten Free Living”
<http://www.glutenfreeliving.com/>

- “Living Without”
<http://www.livingwithout.com>



Questions?



- ▣ Please try some product samples

References

- Tricia Thompson, MS, RD. "Celiac Disease Nutrition Guide Second Edition," American Dietetic Association. 2006.
- American Dietetic Association. ADA Nutrition Care Manual. Chicago: American Dietetic Association, 2006. Online resource through www.eatright.org. Accessed June 14, 2008.
<http://nutritioncaremanual.org.libauth.tri-c.edu:2048/index.cfm?Page=Diseases&topic=18174&headingid=25704>
- Celiac Disease Foundation. Online.1998-2007. July 20, 2007.
<http://www.celiac.org/cd-what.php>
- Green, Peter H. R., M.D. & Jones, Rory. "Celiac Disease A Hidden Epidemic." HarperCollins Publishers. New York, NY 2006.
- Guandalini, Stefano, M.D. Celiac Disease Conference. Northeastern Ohio Universities College of Medicine. March 20 & 21, 2007.
- Malahias, Ted, DDS. Celiac Disease Conference. Northeastern Ohio Universities College of Medicine. March 20 & 21, 2007.
- Choi, Janet, M.D. Celiac Disease Conference. Northeastern Ohio Universities College of Medicine. March 20 & 21, 2007.
- Brannagan, Thomas III, M.D. Celiac Disease Conference. Northeastern Ohio Universities College of Medicine. March 20 & 21, 2007.
- Celiac Disease Center at Columbia University. Online. July 24, 2007.
<http://www.celiacdiseasecenter.columbia.edu/CF-HOME.htm>
- U.S. Food and Drug Administration. Food Labeling; Gluten-Free Labeling of Foods. Online. July 24, 2007.
<http://www.cfsan.fda.gov/~lrd/fr070123.html>

ADA Nutrition Care Manual

- ▣ “Patients presenting at an initial nutrition consultation with a diagnosis of irritable bowel syndrome (IBS) or undiagnosed gastrointestinal complaints (e.g., diarrhea, bloating, gas, abdominal pain), especially when accompanied by fatigue and weight loss, should be assessed for celiac disease. In a survey of adults with celiac disease, 37% of respondents reported that they were initially diagnosed with IBS (Zipser, 2003). To help ensure that celiac disease cases are not being missed, dietitians should check patient charts for serologic tests used in screening for celiac disease (e.g., immunoglobulin A [IgA] antihuman tissue transglutaminase [TTG] and IgA endomysial antibody immunofluorescence [EMA] tests).
- ▣ If a patient with IBS or persistent undiagnosed gastrointestinal complaints has not undergone serologic screening tests for celiac disease, a recommendation to order these tests should be made to the referring physician. It is important to stress, however, that patients with suspected celiac disease should not be placed on a gluten-free nutrition prescription until they receive a definitive diagnosis of celiac disease. Following a gluten-free nutrition prescription before the administration of diagnostic tests may affect the accuracy of the results.”