



The GLUTEN-FREE Diet

by Peter Zvejnieks, MD

Awareness of celiac disease and sensitivity to gluten in foods has dramatically increased in recent years, and many people have begun experimenting with eliminating gluten from their diet and comparing changes in their health and well-being. Markets and restaurants have begun offering choices for those electing to eat gluten free. Symptoms of gluten sensitivity vary widely from digestive discomfort to fatigue, skin problems, mood and concentration difficulties, weight issues, and can be mild or severe. Diagnosis can be challenging, without specialized tests, but eliminating gluten to see if health improves is one way to develop insight into possible gluten sensitivity.

Gluten is what remains after wheat-based dough is washed to remove starch granules and other water-soluble constituents. This remaining rubbery mass is a mixture of very large protein molecules, called glutenins, and gliadins. This mixture of highly interconnected and elastic proteins, generally called gluten, is what gives wheat-based dough that durability and hold-together strength in hand-tossed pizza dough and flexible breads.

Many gluten proteins in wheat, barley and rye are difficult to digest completely, and partially digested fragments of the protein in the gut may trigger an immune response and inflammation. About 2 percent of the population has been diagnosed with the more severe and life-threatening form of celiac disease, and the less-severe subclinical disease may be as high as 30 percent. Ninety-five percent of celiac patients carry a specific gene, namely HLA-DQ2. The other 5 percent carry HLA-DQ8. These genes actually present partially digested gluten fragments to the immune T cells, thereby activating the inflammatory cascade. Though 30 percent of the total population carries one or both of these genes, not having either of the genes eliminates celiac disease as a diagnosis for the patient's health issues.

Bacteria in your mouth actually produce enzymes perfectly capable of breaking down gluten completely. In

another example of your grandmother's wisdom vindicated, chewing your food properly and eating slowly may be protective of celiac disease. And anyone following a gluten-free diet may benefit from the same, giving oral flora a chance to break down any traces of gluten that may be present.

Wheat, rye and barley are not part of a natural human diet, but make up a substantial part of our modern-day diet. In fact, the farming of wheat developed no more than 10,000 years ago. To put time into perspective, 60 million years ago, human evolution began from primates. So, for just the very tiny .00017 percent of our existence on this planet, we radically changed our diet from hunter-gatherer to one largely based on gluten-containing, starchy agricultural products.

The treatment for confirmed symptomatic celiac disease is the lifelong adoption of a completely gluten-free diet. Since minuscule quantities of gluten in food can trigger full-blown life-threatening allergic reactions in that 2 percent of the population, machines used to process gluten-free foods must not be used to process gluten-containing foods. Oats, for example, do not contain gluten if processed correctly, but may have been cross contaminated in processing.

Many resources for following a strict gluten-free diet are available, but one problem persists: Wheat, barley and rye also contain the majority of prebiotics in the typical American diet, namely oligofructose and inulin. Prebiotic nutrients ordinarily pass through to the colon and provide the bulk of nutrition for beneficial colonic bacteria. Adequate prebiotic fiber enhances calcium absorption, bone formation and immunity; reduces allergies in children; lowers triglycerides and carcinogenic factors in the gut; and contributes to weight control. People on long-term gluten-free diets have an altered intestinal flora, which favors unwanted bacteria. However, there are excellent gluten-free sources of prebiotic plant fiber, including onions, garlic, leeks, bananas, asparagus, artichokes and Jerusalem arti-

Carolina Reiki Institute

healing ministries for body, mind and spirit

Reiki Therapy • Raindrop Treatments • Aqua Chi Ionizing Foot Baths
Health and Wellness Coaching • Parasite Zapping

Herbal Blessings Flower Remedies • Aromatherapy Blends
Herbal Extracts • Freshly Prepared Essiac tea™

Reiki Classes for all levels, private & group
6 month Certified Reiki Practitioner Program

www.CarolinaReikiInstitute.com 803.551.1191

chokes. Those following a gluten-free diet should incorporate generous portions of these foods daily. Prebiotic fiber supplements are also available.

Establishing a gluten-free diet in the home is best done by dedicating a cabinet and/or section of the refrigerator to only gluten-free foods. That way, the celiac patient does not have to

ponder every bite he or she takes. One dietary program that emulates the eating habits of our pre-Neolithic ancestors is the Paleo Diet, advocated by Dr. Loren Cordain. It's a quality gluten-free diet based on hunter-gatherer foods, and supported by several cookbooks, Internet resources and blogs.

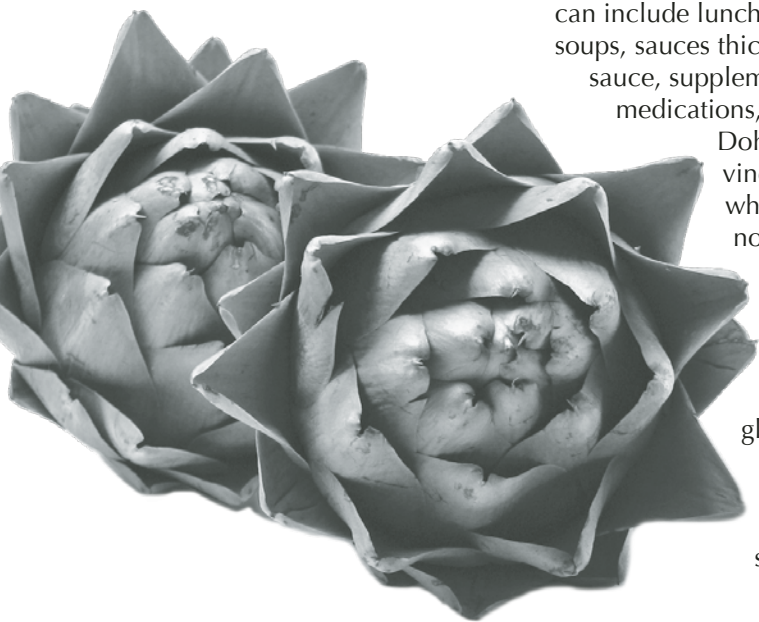
Non-obvious sources of gluten can include lunch meats, canned soups, sauces thickened with flour, soy sauce, supplements, prescription medications, lipstick and Play-Doh. Distilled white vinegar is gluten free, while malted vinegar is not. Beer not labeled gluten free contains gluten, while wine does not. Incidentally, communion wafers are made gluten free.

When dining out, caution would dictate asking the server if foods you

might be interested in are gluten free, or if they understand gluten-free diets. Several restaurants in the area have begun adopting gluten-free menu items and educating wait staff. In Columbia, a gluten-free group has formed that helps members locate restaurants with gluten-free dining. With a little knowledge and some preparation, a gluten-free diet need not be a burden. Regulations require even trace amounts of wheat or gluten to be disclosed on packaged foods, and gluten-free certification is becoming more common.

Modern laboratory screening for celiac disease is noninvasive and relies on the very sensitive and specific IgA antibody for transglutaminase, the specific epitope for earlier anti-endomysial antibodies. If the patient is not IgA deficient, this test is highly predictive. Anti-gliadin antibodies are also helpful. This simple test can also be used to monitor the effectiveness of dietary intervention. DNA testing for HLA-DQ2 and HLA-DQ8 may support a diagnosis of celiac disease, but are more useful in ruling it out. The gold standard continues to be small bowel biopsy demonstrating inflammation and villous atrophy, but the pathology may be subtle, subjective and subject to sampling error.

Peter Zvejnieks, MD, is a board-certified pathologist helping patients take an active part in their own health maintenance, advocating proper nutrition, exercise and objective medical testing to prevent chronic diseases. For more info, visit Dr. Z's blog at DrZforlife.com.



Make your community
a little GREENER...
Support our advertisers.

For every \$100 spent
in locally owned businesses,
\$68 returns to the community.

source: the350project.net