



NUTRITION / DETOXIFICATION

Understanding Gluten Sensitivity: Fantasy, Fad, Fiction or Fact?

Brain fog, depression, fatigue, headaches, migraines, anxiety and muscle pain are common complaints you see in your chiropractic office every day, but did you know they may have the same underlying cause? Gluten sensitivity is an under-recognized, under-diagnosed condition that can contribute to everything from neurological issues, heart disease and even cancer.

Gluten sensitivity - like celiac disease - is an immune reaction to the dangerous gluten found in wheat, barley and rye. However, celiac disease is an autoimmune disease that specifically damages villi in the small intestine, while gluten sensitivity involves a different immune process. Those with gluten-related disorders suffer "leaky gut" when they ingest gluten. Undigested gluten peptides leak into the bloodstream of susceptible individuals and provoke an inflammatory cascade. Inflammation will affect the body wherever a patient has a "weak link." Common sites for trouble are the brain, skin, muscles, joints, heart, bones, mouth and GI tract.



Flawed Study Leads to Misinformation

Many people know that gluten sensitivity is real. Patients and holistic practitioners know that symptoms like fatigue, brain fog, headaches, rashes, anxiety, muscle pain and more, can resolve on a gluten-free diet, even in those who do not have celiac disease. However, others (especially those in mainstream, conventional medicine) deny or question the existence of the condition. A study published in 2013 entitled, "No effects of gluten in patients with self-reported non-celiac gluten sensitivity after dietary reduction of fermentable, poorly absorbed, short-chain carbohydrates," added to the misinformation.

Bloggers and major media outlets took the title "No effects of gluten ..." to mean that gluten sensitivity does not exist! Nothing could be further from the truth. The fact is gluten sensitivity is a real disorder with defined symptoms and diagnostic criteria. Design flaws in the study led researchers, and then bloggers, journalists and some in the public, to reach incorrect conclusions about gluten sensitivity.

Where did researchers go wrong? In a nutshell, they excluded the very people who DID have gluten sensitivity so they could "prove" that the disorder does not exist! How convenient. Here's what we know. Researchers excluded the following participants from the study:

- About 60% of those who carried a so-called "celiac gene," (DQ2 or DQ8) were excluded. As it turns out, an estimated 35% to 40% of those with gluten sensitivity have at least one copy of these genes.
- People with a Marsh 1 level of intestinal inflammation were excluded. About 40% of gluten-sensitive people exhibit Marsh 1 inflammation.
- Another 37% of potential participants were denied entrance into the study because they had anti-gliadin antibodies in their system. Some gluten-sensitive people have anti-gliadin antibodies.

Of participants who were admitted into the study, 7% DID respond when gluten proteins were eliminated from their diet. However, researchers chose to characterize this as "no effects of gluten ..." Patients in the study also did not complain of gluten sensitivity symptoms like headache, joint/muscle pain, numbness, dermatitis, depression, brain fog, skin rash and more.

It is a shame that bloggers and journalists accepted the researchers' conclusion and contributed to the misinformation about gluten sensitivity. Failing to recognize the condition is not only wrong, but it robs millions of people of their health and vitality. The majority of people with celiac disease are undiagnosed and the problem with gluten sensitive people is even greater. For every one person with celiac disease, there are eight with gluten sensitivity. The vast majority of gluten sensitive individuals do not know they have the condition, nor do they know that gluten sensitivity exists. The under-diagnosis and under-recognition of gluten-related disorders is nothing less than a massive public health crisis.

Two New Studies

It takes an average of 17 years for new research findings to be translated into clinical practice. Two recent studies prove beyond a shadow of a doubt that gluten sensitivity is real. How long will it take practitioners to put this knowledge into practice? The sooner these findings are applied to patient care, the better it will be for millions who are suffering from gluten-related disorders.

In the first study entitled, "Non-celiac gluten sensitivity: literature review," researchers come to the conclusion that several subgroups of gluten sensitivity exist, each with a different pathogenesis, clinical history and, probably, clinical course. They say gluten sensitivity is diagnosed by excluding celiac disease and wheat allergy. Food allergies in infancy, allergies/asthma, IgG anti-gliadin antibodies, intraepithelial and lamina propria eosinophil counts (performed on tissue biopsies from the duodenum and/or ileum-colon) and flow cytometric basophil activation tests may be useful to diagnose gluten-sensitive individuals.

The second study entitled, "An Italian prospective multicenter survey on patients suspected of having non-celiac gluten sensitivity," is The Big Kahuna. The study was performed in 38 Italian centers that specialize in the diagnosis and treatment of gluten-related disorders. Researchers used thorough diagnostic evaluation, including blood tests and invasive procedures to confirm or exclude gluten sensitivity and celiac disease.

Researchers evaluated more than 12,000 patients and identified 486 with gluten sensitivity. The vast majority of patients reported two or more gastrointestinal or extraintestinal symptoms. The symptoms reported most often by gluten-sensitive patients in the study were:

- Bloating (87%)
- Abdominal pain (83%)
- Lack of well being (68%)
- Tiredness (64%)
- Diarrhea (> 50%)
- Headache (54%)
- Epigastric pain (52%)
- Anxiety (39%)
- Foggy mind (38%)
- Arm/leg numbness (32%)
- Joint/muscle pain (31%)
- Skin rash (29%)
- Alternating diarrhea and constipation (27%)
- Weight loss (25%)

- Constipation (24%)
- Anemia due to low folic acid or iron deficiency (22%)
- Depression (18%)

Gluten-sensitive patients also experienced nausea, aerophagia, gastroesophageal reflux disease (GERD), and canker sores.

Now What?

Knowledge is power. Now that you know about gluten sensitivity, you can help your patients -- many of whom have suffered for years or decades without relief. Learn everything you can about gluten-related disorders. Discover how to diagnose and manage these patients. Research shows that gluten-related disorders require aggressive management. Simply putting patients on a gluten-free diet is not enough. It is an absolute necessity, but it is just the beginning. Those with gluten-related disorders suffer high morbidity and mortality, even on a gluten-free diet! These patients need nutritional support, healing of intestinal permeability and treatment to quell intestinal inflammation.

Newer research also suggests that villous atrophy is not the sole danger linked to gluten-related disorders. Rather, it is the presence of inflammation in the intestines -- as evidenced by high numbers of intraepithelial lymphocytes (IELs) in the lining of the intestinal wall of gluten-reactive patients -- that is the real killer. IEL counts can be requested for intestinal biopsies. While gluten and other food allergens often trigger intestinal inflammation, simply removing these offenders is not enough to "put the fire out."

The long-term potential sequelae of gluten-related disorders includes Alzheimer's disease, cancer (including lymphoma), heart disease, headaches, peripheral neuropathy, diabetes, osteoporosis, irritable bowel syndrome (IBS), depression, anxiety, other psychiatric illnesses and autoimmune diseases. We now know that three ingredients are necessary for the development of autoimmune disease: genetic predisposition, an environmental trigger (like gluten) and increased intestinal permeability (leaky gut). Gluten-related disorders are a huge factor in the surging rates of autoimmune disease. The exciting thing is that autoimmune disease can be arrested and even reversed by removing triggers, providing nutritional support and healing leaky gut. The field of predictive autoimmunity tells us that antibodies are produced many years, even decades, before clinical symptoms of autoimmune disease appear. The early detection and treatment of gluten-related disorders can help halt the formation of destructive self antibodies before they cause serious damage. Raising awareness of gluten-related disorders and properly treating them has the potential to change the lives of millions of people worldwide for the better.

Sources:

1. Biesiekierski, J. R., et al. "No effects of gluten in patients with self-reported non-celiac gluten sensitivity after dietary reduction of fermentable, poorly absorbed, short-chain carbohydrates." *Gastroenterology* 145.2 (2013): 320-328.
2. Volta, U., et al. "An Italian prospective multicenter survey on patients suspected of having non-celiac gluten sensitivity." *BMC Med* 2014: 12.82.
3. Mansueto, P., et al. "Non-celiac gluten sensitivity: literature review." *J Am Coll Nutr* 33.1 (2014): 39-54.
4. Fasano, A. "Leaky gut and autoimmune diseases." *Clin Rev Allergy Immunol* 42.1 (2012): 71-78.

