



Food Allergy/Sensitivity - Gluten

Gluten-free diet

Diagnosis

IgA and IgG Immune Reactivity Markers – commonly-tested markers (tTTG IgA, DGP IgA, EMA IgA, AGA IgA, AGA IgG) tell if you are attacking tissues in your gut and attacking gluten that you are exposed to.

Very Sensitive IgG Food Sensitivity Testing – To find the earliest reactivity (in the gastro-intestinal tract).

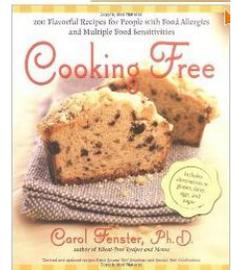
1. The most comprehensive and sensitive test is done by [Cyrex labs: Array 4 – gluten sensitivity](#) (\$325)
2. To do the test on your own (just bring us the results), use this lab:
 - o <http://www.enterolab.com/Customer/NewUser.aspx>
 - o By ordering this kit: [Gluten Sensitivity Stool Test](#) (Fecal Anti-Gliadin IgA) - \$99 Stool sample
 - This test is the MOST sensitive for finding if your immune system is reacting to gluten.

For gene testing to check for the probability of you or a family member of developing celiac disease, check for the gene for this autoimmune condition related to gluten:

- o [Gluten Sensitivity Gene Test](#) (Molecular HLA-DQB1 analysis) - \$149 – Saliva sample
 - This is not absolutely necessary. Order this test if you really want to know if gluten is likely to ALWAYS cause DAMAGE in your body & you MUST avoid gluten for the rest of your life!

Recommended resource sources:

- Cooking for Isaiah** – by Silvana Nardone (Gluten-Free & Dairy-Free)
- Living Without** - The magazine for people with allergies and food sensitivities
- Special Diets for Special Kids** – (over 200 Gluten-Free, Dairy-Free recipes)- Lisa Lewis
- Cooking Free** – by Carol Fenster (incl. alternatives to Gluten, Dairy, eggs, Sugar)



Definition - [By Mayo Clinic staff](#)

A gluten-free diet is a diet that excludes the protein gluten. Gluten is found in grains such as wheat, barley & rye.

A gluten-free diet is used to treat celiac disease. Gluten causes inflammation in the small intestines of people with celiac disease. Eating a gluten-free diet helps people with celiac disease control their signs and symptoms and prevent complications.

Initially, following a gluten-free diet may be frustrating. But with time, patience and creativity, you'll find there are many foods that you can eat and enjoy while observing a gluten-free diet.

Purpose

The gluten-free eating plan is to avoid the damage to the intestines, brain (cerebral cortex and cerebellum), thyroid, and skin. The body FREQUENTLY attacks these tissues in response to gluten reactivity.



Brain Abnormalities Common in Celiac Disease Patients

September 10, 2012 – (*J Neurol Neurosurg Psychiatry*. Published online August 20, 2012. [Abstract.](#))

Patients with celiac disease and neurologic symptoms have substantial structural and functional brain deficits as detected on magnetic resonance imaging (MRI), British investigators have observed.

Stuart Currie, PhD, and colleagues from the University of Sheffield, United Kingdom, found that patients with celiac disease and balance disturbances had significantly smaller cerebellar volumes than age- and sex-matched controls.

The same imaging studies showed significantly less grey matter density in multiple regions of the brain, including the cerebellum, among patients with celiac disease than among controls. Similarly, white matter abnormalities (WMAs or brain damage in the white matter of the brain) were identified in a significant proportion of the celiac disease people compared to no white matter brain damage in the control people.

"We were not surprised by the differences in cerebellar volume because we know that ataxia is one of the most common neurological manifestations of celiac disease and we were not particularly surprised by the findings of WMAs either because we had previously described this entity of gluten encephalopathy — headache and WMAs — in patients with celiac disease. So here, we just demonstrated that these abnormalities are common," co-investigator Marios Hadjivassiliou, MD, also from the University of Sheffield, told *Medscape Medical News*.

On the other hand, the fact that other areas of the brain are involved is interesting, he added, "in that they could potentially explain some of the other neurological problems such as sensory disturbances in patients who do not have peripheral neuropathy."

They might also help explain the anxiety that patients with celiac disease often have as well, he noted.

The study was [published online](#) August 20 in the *Journal of Neurology, Neurosurgery and Psychiatry*.

Thirty-six percent of patients with celiac disease were also found to harbor WMAs. The prevalence of WMAs was greatest in the headache subgroup, the authors note.

Table. WMAs Among Patient Subgroups

Patient Subgroup	Patients With WMA (brain damage), number (%)
Balance disturbances (n = 20)	6 (30)
Headache (n = 6)	4 (67)
Sensory loss (n = 4)	1 (25)

Gluten-Free Diet

The fact that the study showed brain abnormalities (lesions), even though they had normal blood flow, suggest that the brain abnormalities and ongoing neurological complaints were caused by gluten exposure.

What it also means is that the gluten-free diet in these cases needs to be strict, because exposure to small amounts of gluten may still be enough to continue the brain damage.

If you are not sure if you are strict enough, gluten-related antibodies can be monitored.



Response Sheet

Food Allergy/Sensitivity - Gluten

Anna DePold Hohler, MD, from Boston University School of Medicine in Massachusetts told *Medscape Medical News* that the findings of decreased brain volume in patients with celiac disease help to solidify the understanding that neurologic damage does occur in celiac disease.

The precise pathologic mechanism between brain abnormalities and celiac disease is under investigation but it will probably implicate an immunologic reaction against the TG6 antigen, which is found in the brain.

Diet details

Always avoid

In order to avoid eating gluten, avoid food and drinks containing:

- Barley
- Bulgur
- Durham
- Farina
- Graham flour
- Kamut
- Matzo meal
- Rye
- Semolina
- Spelt (a form of wheat)
- Triticale
- Wheat

Avoid unless labeled 'gluten free'

Avoid these foods unless they're labeled as gluten free or made with corn, rice, soy or other gluten-free grain.

Also check the label to see that they're processed in a facility that is free of wheat and gluten products:

- Beers
- Breads
- Candies
- Cakes and pies
- Cereals
- Cookies
- Crackers
- Croutons
- Gravies
- Imitation meats or seafood
- Oats
- Pastas
- Processed luncheon meats
- Salad dressings
- Sauces (including soy sauce)
- Self-basting poultry
- Soups

Allowed foods

There are still many basic foods allowed in a gluten-free diet. With all foods, check to see that each is labeled gluten free or call the manufacturer to double-check.

Other gluten-free foods include:

- Fresh meats, fish and poultry (not breaded, batter-coated or marinated)
- Fruits
- Most dairy products
- Potatoes
- Rice
- Vegetables
- Wine and distilled liquors, ciders and spirits

Grains and starches allowed in a gluten-free diet include:

- Millet
- Amaranth
- Arrowroot
- Buckwheat
- Corn, Cornmeal
- Gluten-free flours (rice, soy, corn, potato, bean)
- Hominy grits
- Polenta
- Pure corn tortillas
- Quinoa
- Rice
- Tapioca

Check the label when buying amaranth, buckwheat and quinoa. It is safest if they say "certified gluten-free".



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An increasing number of gluten-free products, such as bread and pasta, are becoming available. If you can't find them in your area, check with a celiac support group or on the Web. Gluten-free substitutes are available for many gluten-containing foods, from brownies to beer. Many specialty grocery stores sell gluten-free foods.

Are Oats off-limits? (Depends on the specific oat) – It's better safe than sorry. Absolutely, eat no oats without "Gluten-Free" on the label. For more info. On how *some* oats are better than others, read: <http://www.celiac.com/articles/22470/1/Should-Celiacs-Eat-Oats-Depends-on-the-Oat/Page1.html>

Certain grains, such as oats, can be contaminated with wheat during growing and processing stages of production. It's not clear whether oats are harmful for most people with celiac disease, but doctors generally recommend avoiding oats unless they are specifically labeled gluten free. The question of whether people eating a gluten-free diet can consume pure oat products remains a subject of scientific debate.

Cross-contamination also may occur anywhere ingredients come together, such as on a cutting board or a grill surface. You may be exposed to gluten by using the same utensils as others, such as a bread knife, or by sharing the same condiment containers — the condiment bottle may touch the bun, or a knife with bread crumbs may contaminate a margarine stick or mayonnaise jar.

Extreme: Many other products that you eat or that could come in contact with your mouth **may contain gluten**. I wouldn't concern yourself with avoiding these unless you are significantly reactive (i.e. you have "celiac disease").

- Food additives, such as malt flavoring, modified food starch and others
- Medications and vitamins that use gluten as a binding agent
- Lipstick and lip balms
- Play dough
- Toothpaste

How will my symptoms improve on a gluten-free lifestyle?

People with celiac disease who eat a gluten-free diet experience fewer symptoms and complications of the disease. People with celiac disease must eat a strictly gluten-free diet and must remain on the diet for the remainder of their lives. In some severe cases, a gluten-free diet alone can't stop signs and symptoms of celiac disease. In these cases, doctors might prescribe medications to suppress the immune system.

Potential Problems with going Gluten-free

Not ingesting enough nutrients

People who follow a gluten-free diet may have low levels of certain vitamins and nutrients in their diets. Many grains are enriched with vitamins. Avoiding grains with a gluten-free diet may mean eating fewer of these enriched products. Taking a good multivitamin/mineral should address these common deficiencies:

- Iron
- Calcium
- Fiber
- Thiamin
- Riboflavin
- Niacin
- Folate

How do we know if we are strict enough with avoiding gluten?

Repeating some of the Immune-reactivity tests will determine if your body is still reacting to some exposure. If it still reacting, you are likely also having continued damage of body tissues. At that point, you would need to be more strict (i.e. check for foods that have gluten. If none there, check make-ups and other products).