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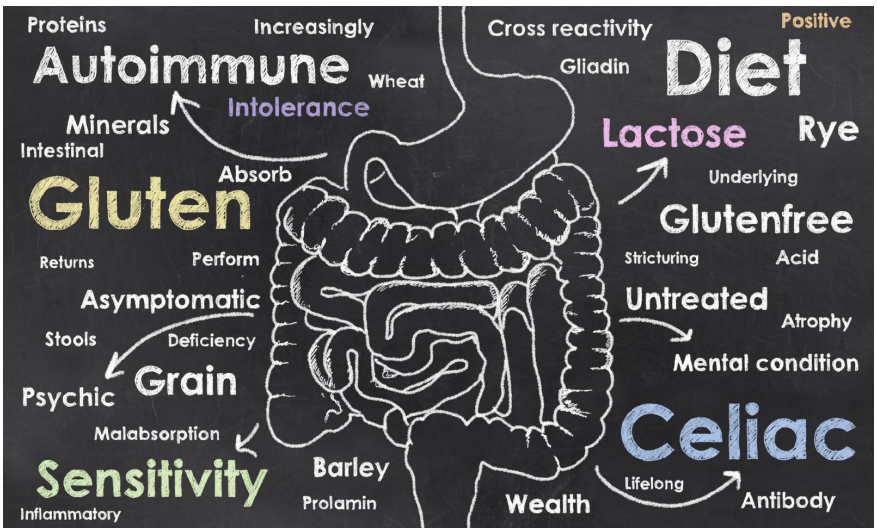
# Still Feeling the Effects When You’ve Cut Gluten Out? Here’s What You Need to Know About Gluten Cross-Reactivity




Those with celiac disease and non-celiac gluten sensitivity may be vulnerable to damage caused by “imposters” foods due to gluten cross-reactivity.

I remember back in the good ol’ days when my mom would serve up a tasty pile of lasagna with layers of cooked pasta, dripping with multiple types of melted cheeses. This dinner favorite, once considered my ideal comfort meal, could now just as easily be labeled a “red-flag meal” to many (including me), having lost its stars and stripes to enemy attackers: gluten and its evil imposters.

In recent years, new medical science and an increased spotlight on how the foods we eat affect our health have given rise to the now-inescapable trend of the gluten-free diet. But while some choose to avoid gluten because of its association with general bloating or inflammation, others are forced to give it up for more serious medical reasons. Celiac disease and non-celiac gluten sensitivity (NCGS) are two serious conditions that require patients to completely avoid gluten and any cross-contamination of gluten.

Celiac disease (CD)—an autoimmune disease where the ingestion of gluten leads to damage of the villi of the small intestine, interfering with the absorption of nutrients from food—triggers a localized immune response in the small intestine. NCGS, on the other hand, does not cause an autoimmune destruction of the small intestine, but it can still cause chronic, and sometimes acute, systemic immune activation. Both of these gluten-related disorders (CD and NCGS) can cause symptoms outside of the gastrointestinal tract, like brain fog, headaches, joint and muscle pain, depression, fatigue, and skin problems. The current estimate is that about one percent of the American population suffers from celiac disease, with about 83 percent of those affected going undiagnosed or misdiagnosed with other conditions. But these "celiacs" account for only a fraction of the population that experience sensitivity to gluten. An additional one percent of the population is estimated to deal with some form of NCGS. Those with celiac disease and NCGS may be vulnerable to damage caused by the above referenced "imposters" due to gluten cross-reactivity.

To better explain, the immune system is highly complex and can mistake molecules that are similar in shape (and amino acid sequence) to gluten molecules for actual gluten, creating a similar reaction or autoimmune response. This phenomenon might explain why symptoms do not always dissipate for many people with gluten sensitivities once they have eliminated gluten from their diets. One study revealed that about 50 percent of gluten-sensitive patients also have a problem with a protein called casein found in bovine (cow) dairy. 50 percent! It turns out that the gluten protein and casein protein are very similar in structure. Unfortunately, although this statistic is staggering and problematic for millions of Americans hoping to feel better after dropping gluten from their diet, dairy is not the only thing to worry about.

In addition to dairy, here are several other gluten-associated cross-reactive foods that could be the cause of ongoing symptoms of immune response similar to those of celiac disease or NCGS:

- Rye
- Barley
- Spelt

- Polish/Ancient Wheat
- Oats
- Alpha & Beta-Casein
- Casomorphin
- Milk Butyrophilin
- Whey Protein
- Milk Chocolate
- Instant Coffee
- Yeast
- Millet
- Corn
- Rice

Some of the foods on this list also belong to a new subgroup of identified overly consumed foods that may need to be examined when on a gluten free diet. This list includes:

- Sesame
- Buckwheat
- Sorghum
- Millet
- Hemp
- Amaranth
- Quinoa
- Tapioca
- Teff
- Rice
- Corn

- Potato

Because food sensitivities are different from allergies, a traditional allergy test panel would be of no benefit to someone with immune-reactive food intolerances. Until recently, the only way to pinpoint a possible sensitivity was to try an elimination diet. In this case, you would eliminate all of the foods mentioned above for a few months until symptoms dissipate, reintroducing them one at a time, looking for symptoms to reoccur. This can be a long and

frustrating process. Fortunately, science has come a long way in recent years and there are now hyper-focused gluten cross-reactivity screens available for patients dealing with food sensitivities and reactivities. For example, Cyrex Laboratories, a clinical laboratory specializing in functional immunology and autoimmunity, offers the Array 4—Gluten-Associated Cross-Reactive Foods and Foods Sensitivity. This innovative test identifies reactivity to foods that are known to cross-react to gluten and react to newly introduced foods on a gluten-free diet.

If you have celiac disease, non-celiac gluten sensitivity or gut dysbiosis and are experiencing limited improvements or are non-responsive on a gluten-free diet, testing for gluten cross-reactivity is highly recommended. Remember that inflammation, discomfort, joint and muscle pain, brain fog, skin problems, fatigue, bloating and other digestive and systematic symptoms are not just a matter of being uncomfortable; these signs are our body's way of telling us that something is off and needs to be adjusted. Always consult with your primary care physician to discuss symptoms, possible causes, and options for testing. Be well!

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*(Edited by Cherese Jackson)*

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