Gluten Intolerance, Wheat Allergies, and Celiac Disease – It's More Complicated Than You Think

Is "gluten free" a fad? No, it's going to be a thing for as long as we are producing wheat and bread the way we're doing it. A lot has changed in the bread industry – it's not just one thing.

People often comment about how bread didn't cause problems with our health before GMOs and Roundup were prevalent in our food supply. Our farming practices have changed, and fairly recently, wheat has started being sprayed with Roundup. The newest speculation is that wheat is not the problem – that the problem is glyphosate, the active ingredient in Roundup. People also often suspect that wheat has been genetically modified. And, of course, there are those who believe the whole gluten-elimination thing is ridiculous and that most people are jumping on the gluten-free bandwagon because it's trendy.

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In my experience, if one suffers from a chronic illness of any kind, they must remove gluten from their diet in order to get well. I have yet to see an exception. So what's the problem? Is it the glyphosate or the wheat or something else? The truth is it's not just one thing. Everyone would already know this if most humans weren't so bad at thinking in terms of systems. We tend to think linearly and look for singular cause and effects, but rarely if ever are complex problems solved by such simplistic thinking. There are multiple reasons one gets sick, with a cold or a chronic disease, just like there are multiple reasons why our planet's ecosystem is changing. This

is why you can’t blame the rise of autism on just glyphosate, or GMOs, or increased vaccinations, or diminishing food quality, or environmental degradation – they all correlate, it’s all of the above.

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There is a very complex system that is causing the decline of American health, and it’s not just the bread. And yes, our health is in decline. If you doubt that…here, google it and take your pick. Our lifespan is actually decreasing.

What’s the difference between Gluten Intolerance, Wheat Allergies, and Celiac Disease

Conventional medicine states that celiac disease and non-celiac gluten sensitivity have a lot of symptoms in common but identifies a key difference. Non-celiac gluten sensitivity is not a genetic disease and does not cause an autoimmune reaction, and celiac disease is a genetic autoimmune disease. A wheat allergy is an allergic reaction to any of the hundreds of proteins in wheat. Gluten intolerance used to be a catch-all phrase for any problem with eating gluten, but now it’s being relegated to mean Non-celiac gluten sensitivity.

Non-celiac Gluten Sensitivity

Non-celiac gluten sensitivity is believed to be the most prevalent of the gluten-related disorders, but it’s not as well defined as the other two. It’s not an autoimmune reaction nor is it an allergic reaction. There are no tests or biomarkers to identify this disorder. Other components of gluten-grains may be causing symptoms. In order for non-celiac gluten sensitivity to be diagnosed, a doctor will rule out celiac disease and wheat allergies or other possible causes of

the symptoms first.

Common Symptoms for Non-celiac Gluten Sensitivity

- Fatigue
- Mental fatigue, aka “brain fog”
- Headaches
- Migraines
- Bone or joint pain
- Gastrointestinal distress
    - Gas
    - Bloating
    - Cramping
    - Indigestion
    - Abdominal pain
    - Diarrhea
    - Constipation

It’s said that individuals with gluten sensitivity do not experience damage to the small intestine or develop tissue transglutaminase antibodies like they do with celiac disease. Non-celiac gluten sensitivity has been linked to a variety of health problems including, diabetes, allergies, autism spectrum disorders, and much more.

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Gastroenterologists looking for celiac disease typically test for a few specific antibodies, and if found, they do an intestinal biopsy to determine if tissue damage is present. Chris Kresser addresses the issue with this kind of testing in *3 Reasons Gluten Intolerance May Be More Serious Than Celiac Disease,* which I highly recommend reading. He states:

> *According to some estimates, for every diagnosed case of celiac disease (CD), there are 6.4 undiagnosed cases that remain undiagnosed—the majority of which are atypical or*

> *"silent" forms with no damage to the gut. (1) This silent form of CD is far from harmless; it is associated with a nearly fourfold increase in the risk of death. (2)*
>
> *I believe that patients with NCGS are even more likely than patients with CD to go undiagnosed. Most gastroenterologists today know how to screen for celiac disease. They will typically test for antibodies to antibodies to alpha gliadin, transglutaminase-2, deamidated gliadin, and endomysium, and if positive do a biopsy to determine if tissue damage is present.*
>
> *However, we now know that people can (and do) react to several other components of wheat above and beyond alpha gliadin, the component that is implicated in CD. These include other epitopes of gliadin (beta, gamma, omega), glutenin, wheat germ agglutinin (WGA), gluteomorphin, and deamidated gliadin. What's more, people can react to other types of tissue transglutaminase, including type 3—primarily found in the skin—and type 6—primarily found in the brain. (3, 4, 5, 6, 7, 8)*

Celiac Disease

Celiac disease is considered a genetic, autoimmune disorder. Ninety-eight percent of people with celiac disease carry one or both of two very specific genes, HLA DQ2 and DQ8. On the other hand, so does up to 25-30% of the general population. Carrying one or both of these genes does not mean you have celiac disease nor does it mean you will develop it. Doctors often use gene testing to rule out celiac disease, but there are some cases where people who do not have either of the genes still tested out to have celiac disease.

Though celiac disease is said to be genetic, genes cause predispositions and our diet and environment adjust our genes. Environment can alter gene activity without changing the DNA

sequence. This is called gene expression. I also believe that the environment and diet can actually alter the DNA sequence, but from what I'm seeing, current science doesn't agree with me on this. Regardless, how your genes affect you is altered by our diet and our environment, and those traits can be passed down to our offspring as well. In other words, a predisposition to celiac disease may be hereditary, but whether or not we have celiac disease could depend on our genetic health, which depends on our overall health, which depends on our lifestyle. And this can all be traced to gut health – you cannot have a healthy gut without a healthy lifestyle, and our gut health is something most of us have complete control over.

Related: *Gluten, Candida, Leaky Gut Syndrome, and Autoimmune Diseases*

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    - Indigestion
    - Abdominal pain
    - Diarrhea
    - Constipation
- Arthritis
- Dermatitis
- Eczema
- Osteoporosis
- Liver disorders
- Depression or anxiety

- Peripheral neuropathy
- Seizures
- Migraines
- Irregular menstruation
- Miscarriages
- Canker sores

Doctors believe that in order to develop the disease, a person needs to have the genetic predisposition while they are consuming gluten and to subsequently have the disease activated. Activation triggers are said to potentially be stress, trauma, and viral infections. I contend that vaccines and antibiotics are the two most common triggers for the disease. Damaging the gut is what leads to problems with wheat, but we'll get more into that below.

Wheat Allergies

Celiac disease and non-celiac gluten sensitivity have many symptoms in common, but wheat allergies are often much more distinctive. Symptoms include itching, hives, or anaphylaxis which is a life-threatening reaction. A wheat allergy is an immune reaction to any of the hundreds of proteins in wheat. It is possible for a person to be allergic to wheat and to have non-celiac gluten sensitivity or celiac disease at the same time.

What About Roundup?

Monsanto introduced glyphosate under the trade name Roundup in 1974 shortly after DDT was banned. It wasn't used very much until the late 1990s when Monsanto genetically engineered seeds to withstand high doses of Roundup, and the product took off. Eager to sell more of its flagship herbicide, Monsanto has encouraged farmers to use their glyphosate as a desiccant. Wheat can be harvested quicker and easier if you dry it all out ahead of time with Roundup. It's also used in this way on

wheat, barley, oats, canola, flax, peas, lentils, soybeans, dry beans, and sugar cane.

Studies have concluded that chronically ill people have higher levels of glyphosate in their bodies. Glyphosate has been attributed to an increased prevalence of most of our common chronic conditions including, but not limited to ADHD, Alzheimer's, birth defects, autism, cancer, kidney disorder, irritable bowel syndrome, Parkinson's disease, depression, diabetes, heart disease, thyroid disorders, liver disorders, multiple sclerosis, reproductive issues, adrenal failure, obesity, asthma, and of course, celiac disease.

It's not hard to understand why. Glyphosate is poison and so are the other ingredients in Roundup. People have to wear protective gear to apply the product. It is designed to kill. It kills plants by preventing them from making certain proteins. Just imagine what that does to one's gut ecology.

How Wheat Has Changed

The wheat we have now is very different from what our ancestors consumed. Modern dwarf wheat is hybridized. That isn't a GMO, but the genes of our wheat plant have certainly been modified to grow faster, and to be more resilient. We used to eat wheat called einkorn, which was actually one of the very first grains we humans cultivated more than 10,000 years ago. When you read in the Bible about how we should eat bread, this is the wheat it refers to.

There is a lot more gluten in modern wheat than there is in einkorn, and the gluten that einkorn wheat does contain is different. Einkorn also has 15 percent less starch and 30 percent more protein. Modern wheat has a lower nutrient content and a different protein structure. In fact, many with celiac and gluten intolerance report being able to eat einkorn without issue.

Also, that blood sugar spike experienced after eating bread does not happen with einkorn.

> *So I conducted a simple experiment on myself. On an empty stomach, I ate 4 oz of einkorn bread. On another occasion I ate 4 oz of bread that dietitian, Margaret Pfeiffer, made with whole wheat flour bought at the grocery store. Both flours were finely ground and nothing was added beyond water, yeast, olive oil, and a touch of salt.” – Einkorn and blood sugar*

> *“Ancient wheat diets caused a downregulation of key regulatory genes involved in glucose and fat metabolism, equivalent to a prevention or delay of diabetes development. Spelt and rye induced a low acute glycemic response compared to wheat.” – NCBI*

How Bread Making Has Changed

Most commercial bread contains bromides, added starches, refined sugars, added gluten (vital wheat gluten), preservatives, artificial flavorings, leveling agents, and stabilizers. Potassium bromate is an additive used in commercial bread and baked goods that make the products lighter and fluffier. Bromines are part of the halide family, a group of elements that includes fluorine, chlorine, and iodine, which are all endocrine disruptors that cause digestive issues and a host of other health problems.

Related: *Sugar Leads to Depression – World’s First Trial Proves Gut and Brain are Linked (Protocol Included)*

Baking Soda, baking powder, and cream of tartar are often used in place of yeast or in addition to rapid rise yeast to make the bread rise quickly and more uniformly. Modern bread rises for a couple of hours or less, whereas homemade bread traditionally takes at least 12 hours to rise. I got curious

about the difference between baking soda and baking powder, and I thought you might be as well, hence the video below.

Traditional bread recipes typically utilized a few common ingredients including flour, yeast, salt, water, a sweetener, and some spices or herbs.

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Refined flours started to be widely used around 1880 which caused worldwide epidemics of pellagra and beriberi. Refining the flours removes bran and germ which increases shelf life. It also removed the B vitamins. Previous iterations of bread did use bolted or sifted flour which did refine the wheat somewhat, but it didn't remove all of the bran, germ, and endosperm, and that flour was never bleached.

> *Bread with Whole Grains that are gently stone ground just before mixing the dough and then allowed to ferment slowly and naturally, in other words – authentic sourdough. That's how the Egyptians made it 6,000 years ago."*
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> *Bread was fundamentally redesigned. Refined flours, large quantities of commercial yeast, and a combination of additives and intense energy created the modern industrial bread. Fast mixing, fast rise, fast baking. Industrial bread is made far too fast."* – *Mario Repetto*

How Our Gut Biology Has Changed

We keep eating more and more sugar. In the early 1700s, the average sugar consumption was about 4 pounds a year. By 1800 we were at 18 pounds a year. By 1900 we were up to 60 pounds of sugar a year. Today the average American consumes between 130 and 150 pounds of sugar every year.

Sugar feeds pathogens. Our healthiest gut bacteria like the

healthiest foods: vegetables and herbs. Nature wouldn't work any other way; how could it? You're probably thinking, "What about fruit?" We don't eat the fruit we used to eat. Like wheat, our fruit has been radically altered through hybridization. But that's another article (I'm working on it). For now, just Google "wild banana" or "what watermelon used to look like".

We get way more sugar than our ancestors got even if we cut out refined foods. This causes an abundance of Candida. I believe Candida is prevalent in every single person with chronic illness. Everyone has yeast but when yeast is left unchecked they turn into pathogenic fungi. Tests for Candida aren't accurate. Candida, when in it's in the virulent fungal form, will make the gut more permeable. When this happens food proteins are absorbed into the body before they are digested. This causes allergies. This is one of the main causes of allergies, but there are others at play as well. In my experience, every single person who has cut refined sugar out of their lives and decreased their body's Candida was able to rid themselves of seasonal, environmental, and food allergies. Every single time!

In addition to that, a study published in *The Lancet* showed that the candida protein HWP-1 is similar in structure to gluten.

> *A candida infection in the gut can cause an immune system reaction to HWP-1, which then stimulates an allergic reaction to the gluten in wheat and other grains and may trigger celiac disease in genetically susceptible people." – Leyla Muedin, RD*

Wheat proteins can also cause an immune response against the thyroid.

> *An obvious explanation is that the initial attack on the thyroid by anti-tTG autoantibodies of celiac leads to thyroid*

> *inflammation and presentation of TPO, with a second round of autoantibodies produced to TPO resulting in Hashimoto's Thyroiditis." – Dr. Art Ayers*

Celiac disease and hypothyroidism beget more chronic autoimmune issues. Allergies lead to autoimmune disease. Allergies lead to chronic health issues. Medical science has established this. Medical science is just starting to understand the fact that a permeable gut causes allergies. Science also has established that an abundance of Candida causes a permeable gut. What they haven't figured out yet is just how prevalent the permeable gut issue really is. But the bottom line is that our poor diet leads to allergies and almost all that commonly ails us.

Suggestions

If you have a healthy gut, make your own sourdough bread using heirloom wheat and the old-school practices. If you have any chronic illness, then you do not have a healthy gut. Here's how you fix it. If you're not well, wait until you get well before consuming any kind of bread. And don't think of old-fashioned bread as healthy. Vegetables are healthy. Bread is at its best a neutral food with some health benefits and easy calories that can help sustain life like brown rice and millet. Vegetables and herbs heal the body.

Obviously, stay the heck away from poisons! Glyphosate is a cocktail of poisons. Science has firmly established this. And avoid GMOs as well. They weren't designed with our health in mind, they were designed for profit, and in most cases, to sell more Roundup.

The hard truth is that letting companies cook your food for you leads to poor health. People often ask me, "If you can cure cancer why aren't you rich?" If I could cure cancer and figure out how to do it while still eating refined,

prepackaged, and processed foods that we humans have grown accustomed to, I would be rich. But people would rather die for convenience food than give it up. Obviously. We see this everywhere.

Being well long-term means preparing all your own food yourself the right way, or being rich and hiring someone else to do it. There is no shortcut. Certainly not with bread.

Sources:

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- *4 Ways Modern Bread is Different From Traditional Bread* – Our Heritage of Health
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- *Problems Linked to Monsanto's RoundUp* – EcoWatch
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- *Consumption of Sugar* – Sugar and Sweetener Guide