



Do you know someone who is gluten sensitive?

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I recently gave a talk on health to a group of about 50 men who are members of a Greek fraternal organization and I posed the question; How many of you know someone who is gluten sensitive? Probably two-thirds raised their hand. Had I posed the same question to a similar audience 10 years ago, I am guessing one person might have raised their hand.

I have had a few experiences recently that have strengthened my long held conviction that gluten is bad for many of us and can cause a lot of problems. The buzz in large part is being created by individuals who have chosen to go gluten-free (GF), feel better and become almost evangelical in their quest to spread the word. Also, their coworkers become curious when they notice the zealots have lost weight, seem in a better mood and "just look healthier". Listen to me-this is not a fad. We will not be looking back twenty years from now saying "Can you believe all those gluten-free kooks have finally gone away????". In fact, I see the ranks of the GF swelling as more people try it, feel better and never look back.

Before I tell you about my recent experiences that have transformed me into an evangelical, GF, zealot please allow me to digress for a moment. As many of you know, I have had a long-standing interest in irritable bowel syndrome (IBS), food intolerances, and food sensitivities. What struck me early on when working with patients that had digestive problems was, when you fix the gut many of their other medical problems go away. It was Hippocrates who said "all disease begins in the gut". This is sage advice for modern times and I have to agree wholeheartedly. If you are one of the ever growing percentage of the population who is sensitive to gluten, you need to eliminate it from your diet.

Let me begin by defining gluten and explaining why gluten sensitivity is on the rise. Gluten is the protein found in certain grains such as wheat, barley, and rye. You may have heard of celiac disease which is a severe form of gluten sensitivity that is now found to affect one in 100 individuals. When I was in medical school in the 1980s we were taught that celiac disease was relatively rare, affecting about one in 3000 individuals. I thought at the time that I would have to look really hard to find someone so afflicted. More recently there has been a new group defined as "non-celiac gluten sensitive" individuals who experience an immune mediated reaction to gluten and by some estimates this group may represent up to 30% of the population.

You are going to hear more about this, as awareness of gluten sensitivity increases and new, more sensitive tests become available to diagnose individuals reacting to gluten. The incidence is also increasing because we are exposed to more gluten containing products as

wheat is used in so many prepackaged and processed foods. Also, the modern day genetically modified (GMO) wheat has almost twice the gluten content as the ancestral pre-GMO wheat. As is often the case, the more you are exposed to something the more likely you are to develop an intolerance at some point.

Now on to the present.

In January 2013 I attended a functional medicine conference in Orlando, Florida. The keynote speaker was Dr. David Perlmutter, a well-respected neurologist who gave a talk entitled "Food and the Brain". He received a standing ovation at the end of his presentation. A large part of the discussion centered around the many neurologic manifestations of gluten sensitivity. What struck me the most were his slides showing MRIs of patients with various neurologic disorders before and after going off gluten. There are what the radiologists often refer to as "unidentified white spots" in the brain which decreased or resolved completely on subsequent MRIs in these patients after going gluten-free. Also the varied neurologic symptoms which included things like seizures and tremor resolved in these same patients. There is definitely a brain, gut and gluten connection.

Recently, I had a very bright, fourth-year, registered dietitian student in my office to shadow for a day. As is often the case in the course of a usual day at The Care Group we saw patients for follow-up whom we had previously recommended go gluten-free. The last patient on the schedule for that day was a delightful 80-year-old female who had rheumatoid arthritis for years. She was able to get off of her pain medications and rheumatoid meds after going gluten-free. She was now a GF convert and was showing the student how she could move her hands more freely. The dietitian student after the patient visit revealed to me her own personal experience with acne, fatigue and a variety of other symptoms which resolved when she discovered that she was gluten sensitive. I didn't learn until the end of the day that she was also a GF. I asked her about the current nutritional teachings at her school and I learned they are still on the "healthy whole grains" kick. My advice to those of you reading this is-if a dietitian or nutritionist gives you nutritional advice which focuses on "healthy whole grains" fire them immediately.

Dr. Loren Cordain, who is on the faculty at CSU, is a nutrition researcher and big proponent of the Paleolithic diet. For those of you who haven't heard of the Paleolithic diet, it's the diet our ancient ancestors ate before we became an agricultural society. If you believe this theory, this is the diet we are genetically designed to consume. It basically consists of vegetables, fruit, nuts/seeds, and lean sources of quality protein. It does not include any grains, particularly not the modern day, gluten containing, genetically modified grains.

In the early 1990s when the scientific community began promoting a low-fat diet, which by nature leads to increased carbohydrate intake, the incidence of diabetes began to rise exponentially. Granted there are other factors like increased ingestion of high fructose corn syrup which have contributed to the obesity/diabetes epidemic. However, by now we should be realizing fats are not public enemy number one and indeed we need "good fats" like olive oil and omega-3 fatty acids. I think it was Dr. Atkins who first suggested something along the lines of "It's the carbs that are bad stupid."

I was watching a popular morning news program the other day and there was an author of yet another book on nutrition. She mentioned "healthy whole grains" and I almost barfed as I thought to myself here we go again with someone that really doesn't get it. She should talk to Bill O'Reilly, who has been touting the book "Wheat Belly" by Dr. William Davis on his show. In his well-written book that has been on The New York Times bestseller list, Dr. Davis goes on to discuss the myriad of wheat/gluten adverse effects. It is important to point

out that when we talk about wheat and whole grains, it is not to say that white bread is better for you than whole wheat bread. They both contain gluten and if you want to be a GF, both should be avoided. The Fox news, "nutrition expert" went on to say that you should avoid any diet that eliminates any major food group. Nobody seemed to take issue with this often cited advice when all fats were to be eliminated during the low-fat craze of the 90s.

So with this seemingly never ending conflicting advice, what are you to do? If you are a patient, listen to me, I am your doctor. I wouldn't rant if I didn't firmly believe that this is the best advice for you. Sometimes you have to take the Bill O'Reilly approach to get your point across. Try going gluten-free and see how you feel. As always, it is best to enlist the help of your healthcare practitioner, assuming of course they understand what you are trying to do and why.

You may be wondering by now how can something as seemingly innocuous as gluten in that delicious bread you love be so bad and cause all of these terrible problems? Why hasn't your previous doctor, dermatologist or rheumatologist brought this up?

Let me try and simply explain what really is a complex issue. If you are genetically predisposed to react to gluten (genetic markers have been discovered) and you ingest gluten it can trigger an immune reaction in the intestine. Your immune system thinks that gluten is a foreign invader that should be destroyed. This reaction or overreaction can occur at any time in life in those who are genetically predisposed. Since there is a genetic predilection, if you have a relative who is gluten sensitive you are more likely to be gluten sensitive. You may do well for most of your life and have no reaction until a trigger causes your gluten sensitive gene to become expressed. This may include events such as an intestinal infection or taking an antibiotic, both of which can upset the delicate balance between good and bad bacteria in the gut.

During this battle that is being waged between your immune inflammatory cells and the gluten, the lining of the small intestine becomes damaged. This damage can lead to what commonly is referred to as "leaky gut" or more scientifically referred to as increased mucosal permeability. Imagine a coffee filter that has holes punched into it, pour in the water and now you have coffee grinds in your coffee. This is similar to what happens with "leaky gut". Under normal circumstances your food is broken down in the small intestine and the lining of the small intestine acts as a selective filter allowing nutrients into the bloodstream and the remainder of the undigested material is eliminated with a bowel movement. With "leaky gut" you have seepage of this fecal sewage into the bloodstream. These larger particles percolate in the blood, causing distant inflammatory reactions wherever they land such as the joints, skin or the brain.

Here is a challenge. If you have a medical disorder, Google that disorder and gluten sensitivity. See what you come up with. I realize that the Internet can make you very smart or very dumb and that you really need to look closely at the credibility of the person giving the advice (like me for example). But you may be surprised what you find. Dr. Perlmutter, in his talk listed a range of neurologic conditions that have been associated with gluten sensitivity. To name a few, there has been an association suggested with conditions such as peripheral neuropathy, ADD, schizophrenia, brain fog and various mood disorders. In the past you would think of gluten sensitive individuals as having lots of digestive complaints, which they often do but it is important to realize that you may have another manifestation of gluten sensitivity and no digestive complaints at all. For example, I think of gluten sensitivity in any patient with chronic fatigue, frequent headaches, joint aches, or

autoimmune disorders such as Hashimoto's thyroiditis, rheumatoid arthritis, lupus, and psoriasis.

If you are currently a GF or become one feel free to share your experiences or favorite gluten-free recipes on our blog. If you could talk to some of the patients we have seen over the years who are now GF you would be amazed to hear some of their stories. As I learn more and hear many of these stories it has made me more passionate about spreading the word regarding this important topic.

Suggested reading:

- *Wheat Belly*, by William Davis, M.D.
- *Practical Paleo*, by Diane Sanfilippo, BS, NC
- *Paleo Comfort Foods*, by Julie and Charles Mayfield