## Glutens, Grains and Disease

## Aren't Grains Supposed to be Healthy?

Yes, they are supposed to be. However, man has perverted what God has given us. So what exactly makes a "healthy" grain food so UN-healthy?

- The seeds of many grains are doused with hormones to aid in growth
- Most grains are either genetically over-engineered (GE) or genetically modified (GMO) from their original design, that your body may not recognize their proteins.
- Wheat fields are sprayed with additional Glyphosate to kill it quickly so that the stress of the Glyphosate will cause the plant to try harder to survive by making more gluten
- Grains are stored in bins and sprayed with additional pesticides, then left to soak in it
- Artificial drying of the grain causes damage to its proteins, making them less nutritious
- Processing of grain foods also adds:
- Dough conditioners
- Preservatives
- Soy flour to lower costs
- Extrusion creates acrylamide
- Hydrogenated oils

Unless you have your own (genetically untampered with) wheat, corn or barley field and you make your own food products, I would avoid consuming grains in general.

## What is Gluten sensitivity vs. Wheat Allergy or Celiac Disease?

Traditionally, gluten sensitivity has been thought of as an allergy to wheat, but this is factually incorrect. There is a lot of confusion on this topic, so let's break it apart:

- A gluten allergy is an immediate immune response with usually some immediate symptoms associated with it.
- Gluten intolerance is NOT immune mediated and has more to do with the body's inability to adequately break those proteins down for digestion, like a "lactose intolerance".
- Gluten sensitivity is a mesh of the above two terms. Gluten sensitivity is a functional state of being and generally has genetic predispositions that would lead one eventually to various autoimmune diseases, only one of which is Celiac Disease.
- Celiac and gluten sensitivity are NOT the same thing.
- Celiac Disease is a disease state caused by gluten sensitivity.
- Types of Gluten Sensitivity:
- Non-Celiac Gluten sensitivity
- "Gluten Syndrome" (Rodney Ford, M.D.) - A general term to describe someone who eat gluten and gets "sick"; may or may not be Celiac disease.


## How Can I Prevent Gluten Sensitivity?

Firstly, if you are genetically predisposed to gluten sensitivity all you can do is do your best with simply avoiding all gluten-containing foods and products.

Secondly, since a strong intestinal lining will protect you from the damaging effects of gluten avoid the things that damage your lining by weakening the immune system, interfering nutrient absorption and promoting a "leaky gut". Below are some examples of medications that damage the gut:

- Antibiotic use. Although these can be life-saving when you have an aggressive bacterial infection, the over-utilization of these drugs contributes to a change in the normal healthy gut flora ('good' bugs of the gut).
- Anti-acid medications like Nexium, Prilosec, Tums and Rolaids. These drugs ultimately suppress the acid production in your stomach, which directly blocks digestion. This will leave food in your system under digested which will putrefy and rot causing further irritation to your gut lining.
- Nonsteroidal anti-inflammatory medications (NSAIDS). These medications contribute to the destruction of the gastric (stomach) and intestinal lining.


## What is "Gluten"?

"Gluten" is a mixture and classification of proteins found in all grains. It is composed of two primary subfractions: 1) Prolamines and 2) Glutelins.

The prolamine "Gliadin" (from wheat) is the most studied piece of gluten in the medical literature as it relates to Celiac Disease, but there are other prolamine (gluten) proteins to be aware of. Different grains have their own unique "glutens", but make no mistake they ARE glutens: (notice that corn and rice are on this list)

- Wheat $-69 \%$ of the protein is Gluten as Gliadin
- Corn $-55 \%$ of the protein is Gluten as Zien
- Sorgum $-52 \%$ of the protein is Gluten as Kafirin
- Barley - 46 to $52 \%$ of the protein is Gluten as Hordein
- Rye -30 to $50 \%$ of the protein is Gluten as Secalinin
- Millet $-40 \%$ of the protein is Gluten as Panicin
- Oats $-16 \%$ of the protein is Gluten asAvenin
- Rice $-5 \%$ of the protein is Gluten as Orzenin

So if you plan to go "Gluten-Free", is it ok to eat corn?

## Where else could I be contaminated from Gluten?

These items are technically not grains, but are high risk for cross contamination:

- Buckwheat
- Amaranth
- Quinoa

These items are processed food ingredients that either have gluten or have been contaminated with gluten during processing:

- Texturized vegetable protein
- Hydrolyzed plant protein
- Extenders and binders
- Hydrolyzed vegetable protein
- Modified food starch
- MSG
- Natural flavors
- Many OTC and prescription drugs

