



CHEK POINTS

for Fitness Professionals

Why Wheat/Gluten-Free?

What is gluten?

Many people today are finding out that they are sensitive to wheat and wheat-based products. However, it may not be the wheat that is causing the problem, it is likely to be something in wheat called gluten. You may wonder, what exactly is gluten?

Gluten is a protein molecule not only found in wheat, but also in rye and barley. To be more specific, gluten is the general name for prolamins, a protein fraction found in grains. The prolamins that are often harmful include gliadin (in wheat), secalin (in rye) and hordein (barley).

History of human grain consumption

When one looks at what people ate 2.6 million years ago, until about 10,000 years ago, you will not find grains on the menu. We evolved as humans eating predominately wild game, seafood, worms and insects, seasonal fruits, vegetables, nuts and seeds. It wasn't until about 5,000-10,000 years ago that farming began, and humans began eating grains. Since that time, there has been a progressive increase in the consumption of grains and grain-based products. Yet this time period is but a flash in the scope of human evolution, during which our digestive machinery was formed. An increase in degenerative diseases is often the result when traditional diets are replaced with diets high in processed foods, usually grain based.

Should you eat grains?

Based on how our human digestion systems developed, it could be argued that we are not

designed to eat grains at all. Regardless of this, grains have become a staple in many people's diets. The problem today is that we are eating highly-processed grains and lots of them. Many people are finding that they feel much better when they eliminate, or at least decrease, wheat and other grains from their diet.

Should everyone give up wheat and other grains containing gluten?

Not everyone is sensitive to gluten, but many people are and don't know it. Some experts believe that ~60% of white-skinned people and ~40% of people with colored skin are intolerant to gluten. If you do consume grains, consider avoiding highly processed grains and stick to whole grains.

How do you know if YOU can eat gluten?

You may not think that you are intolerant because you eat wheat all the time and feel "fine." This doesn't mean that you are not being affected at some level. You can find out if you are sensitive to gluten through a variety of blood tests, but the easiest way is to completely eliminate all grains except corn, rice, buckwheat and millet from your diet for two weeks. If you feel better when you are not eating it, you most likely have an intolerance.

What are the differences between gluten sensitivity, allergy, intolerance and Celiac disease?

There is a large range of gluten sensitivity. Some simple definitions to remember are →

Sensitivity: A reaction to wheat/gluten due to an unknown cause. In a sensitive person, eating gluten will cause symptoms, but the long-term consequences are unknown.

Allergy: Wheat or gluten consumption results in an immune response by the body. IgE antibodies are produced, which trigger an allergic response, inflammation and can damage the intestinal tract if repeated often.

Intolerance: An inability to tolerate wheat or gluten with long-term consequences if gluten remains in the diet. Intolerances often occur during periods of excess stress.

Celiac disease: A genetic intolerance to gluten. Long-term consequences can result if gluten is ingested. Damage to the intestines is the most well known consequence, but gluten can also affect the nervous system, hormonal system, liver, blood system and musculoskeletal system of celiacs.

According to the Center for Celiac Research, approximately 1 in 150 people have Celiac disease, yet less than half of these people are diagnosed.

Effects of gluten

When someone with Celiac disease consumes gluten, the lining of their small intestine becomes inflamed, causing the villi to flatten. This reduces the surface area of the intestine and reduces the ability to absorb nutrients properly. If you find out you are intolerant to gluten, but have been eating it, you should also eliminate dairy from your diet for 3 months as the damage to your intestines will make it difficult to digest the dairy. It is not clear whether or not this happens to people who are sensitive to gluten but do not have Celiac disease.

Conditions that are associated with gluten sensitivity vary greatly. A few symptoms of gluten intolerance are: skin disorders, gas, diarrhea, constipation, cramps, ADD and chronic fatigue. If you are experiencing any of these symptoms, you may have a gluten intolerance. You should consider eliminating gluten from your diet. It may seem hard at first, as wheat is in a lot of foods (make sure to read labels), but the foods you will be giving up for the most part will be processed, sweetened foods that you should avoid anyway.

Tolerable Foods*		Intolerable Foods*	
✓ Amaranth	✓ Arrowroot	✓ Barley	✓ Couscous
✓ Buckwheat	✓ Corn	✓ Brown flour	✓ Graham flour
✓ Chickpea flour	✓ Millet	✓ Kamut	✓ Rye
✓ Bean noodles	✓ Potato flour	✓ Semolina	✓ Spelt
✓ Rice	✓ Sorghum flour	✓ Wheat	✓ Teff
✓ Tapioca	✓ Urad (peas) flour	✓ Udon	✓ Pastas (unless corn or rice)
✓ Taro	✓ Yam flour		

* Tolerance to foods will vary. For a complete list of tolerable/intolerable foods see references 1 & 5.

References and Resources

1. Korn, Danna. *Wheat Free Worry Free*. Carlsbad, CA: Hay House Inc., 2002.
2. Cordain, Loren. *World Rev Nutr Diet, Cereal Grains: Humanity's Double-Edged Sword*. 1999. vol 84.
3. Dr. Timmons, William. San Diego, CA: BioHealth Diagnostics. Personal communications.
4. *Living Without Gluten*. Handout, Nutricia Dietary Products. The Coeliac Society, UK.
5. www.celiac.com.

6. Rivera, Rudy. *Your Hidden Food Allergies Are Making You Fat*. Prima Health, 1998.
7. Gottschall, Elaine. *Breaking the Vicious Cycle*. Baltimore: The Kirkton Press, 1994.
8. www.glutenfreemall.com

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