



Separating Fact From Fiction  
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The gluten-free product market is a multi-billion dollar business. Fitness enthusiasts, with celebrities in tow, endorse gluten-free diets as beneficial for health and may even claim that going gluten-free can help you to lose weight.

Consider Yourself Gluten-Savvy? Test

Gluten is a protein found only in wheat.  
 True  False

Celiac disease, wheat allergy, and gluten sensitivity are different names for the same condition.  
 True  False

The FDA has clearly defined what "gluten free" means for manufacturers who sell gluten-free products.  
 True  False

A gluten-free diet is healthier than one that contains gluten.  
 True  False

I will lose weight if I go gluten-free.  
 True  False

If you are not sure whether you want to join the many who are now going gluten-free, it is wise to separate fact from fiction before making this life-changing decision. What is gluten and where is it found? What are the gluten-related conditions that exist? Is a gluten-free diet right for me?

Before answering these questions, take the Gluten-Savvy Quiz to test your knowledge! The answers will be discussed in the subsequent article.

1. Gluten is a protein found only in wheat.

**FALSE.** Along with wheat, gluten is also found in barley, rye, and triticale or any products that result from the cross-pollination of these grains. Common foods that contain these grains are pastas, baked goods, and some not-so-obvious processed foods that are made with preservatives, additives, or derivatives of these grains.

Let's dig a little deeper and understand what gluten really is. You probably are familiar with gluten in relation to baked goods. Gluten is what gives bread, for example, that chewy and sumptuous texture. Scientifically speaking, gluten is a protein made up of two main groups of proteins called gliadin and glutenin.

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# Gluten-Free: Separating Fact From Fiction.

## Consider Yourself Gluten-Savvy? Test Your Knowledge!

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### I. Gluten is a protein found only in wheat.

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When considering the structure of a protein, visualize a chain made up of many links. Each link is a unit called an amino acid. Many different amino acids make up a protein. When these proteins are digested, they break down into smaller entities and then, eventually, the individual amino acids themselves. The digestion of these proteins has been shown to be one of the causes of gluten-related conditions we see today, which we will discuss next.

## **2. Celiac disease, wheat allergy, and gluten sensitivity are different names for the same condition.**

**FALSE.** Although symptoms can be similar between these conditions, there are striking differences between celiac disease, wheat allergies, and gluten-sensitivity. Celiac disease is an autoimmune disorder. Upon eating gluten, the body attacks itself leading to localized or widespread systemic inflammation. When people who have celiac disease consume gluten, their immune system responds by attacking and damaging the small intestine.

This damage to the small intestine can lead to an inability to absorb numerous vitamins and minerals resulting in nutritional imbalances. The severity of this condition depends on the person. Particular cases are so severe that some sufferers cannot even come into contact with food particles (i.e., via touch, inhalation, etc.) that contain gluten without having an inflammatory response.

Depending on the severity, a wide range of symptoms exists. Some of the symptoms of celiac disease include, but are not limited to, bloating, gas, diarrhea, and constipation. Other non-gastrointestinal symptoms include joint and muscle pain, headache, confusion, psychiatric disorders, and fatigue. Through various tests, a gastrointestinal specialist can diagnose celiac disease. The only way to treat celiac disease is to adhere to a strict and permanent gluten-free diet.

A **wheat allergy** can also generate an immune reaction but in response to **various wheat components**. In these cases, *gluten is not the only culprit*. The immune responses seen with wheat allergies are like those commonly associated with other allergic reactions such as respiratory distress, gastrointestinal upset, and skin irritations. It is important to refer to an allergist to receive the correct treatment and education in order to avoid wheat safely and manage this condition.

Recent research has been paying much attention to what is called Non-Celiac Gluten Sensitivity or, simply put, **gluten sensitivity**. Gluten sensitivity is a condition where many of the same symptoms associated with celiac disease exist, such as nausea, diarrhea, abdominal pain, headache, numbness in the hands and feet, mental

confusion, and psychiatric disorders. **The difference here is that little or no damage is done to the small intestine as seen in celiac disease.**

There are several ideas as to what causes gluten sensitivity. One theory is the actual break down of gliadin and glutenin, which produces individual amino acids that may create an opiate-like response causing lethargy in some people who are particularly sensitive.

Interestingly though, new studies suggest that several cases of gluten sensitivity may not be associated to gluten at all. Instead, triggers may be other proteins found in wheat and several grains and/or a class of carbohydrates called fructans. Fructans can be difficult to digest and found in numerous foods—not just grains.

Currently, there is not a standard diagnostic test to detect gluten sensitivity and the severity as well as the food culprits can differ between individuals. Under the supervision of a physician and a Registered Dietitian, the method of diagnosis includes an elimination diet to see which foods are causing a reaction. A person may then benefit from eliminating or limiting these foods.

**3. The FDA has clearly defined what “gluten-free” means for manufacturers who sell gluten-free products.**

**TRUE.** This is a cause of celebration for people with gluten-related conditions everywhere! On August 2, 2013, the FDA provided a clear definition for manufacturers as to what gluten-free must mean. This forward motion has provided consumers with an honest guarantee along with heightened confidence in the gluten-free foods they purchase.

The new FDA definition states that foods labeled gluten-free must have 20 parts per million or less of gluten. In other words, each kilogram of the product must contain 20 milligrams of gluten or less. This is a *very minuscule amount*. Since then, manufacturers have been given a year to comply and make these changes to their products. This protocol now also meets that of international food safety standards!

**4. A gluten-free diet is healthier than one that contains gluten.**

This is a trick question and the answer is **MAYBE**. A gluten-free diet can be, but is not always, healthier than a gluten-containing diet. If you suspect any of the aforementioned conditions, then certainly, a gluten-free diet may be much better for you! However, if you do not suffer from one of these conditions, avoiding gluten will not provide any health benefits. Just because something is labeled gluten-free doesn't mean it is healthy and in some cases may be worse.

Recall how gluten gives foods an incomparable texture. In gluten-free foods, manufacturers try to replicate this texture often by using modified starches and processed grains that have zero nutritional value. When the entire grain is not used, which occurs in highly processed foods, many nutrients are lost. By eating whole unprocessed grains, you are also getting vitamins, minerals, and fiber that gluten-free products may be lacking.

Whether you are eating a gluten-free diet or not, it is important to limit processed packaged foods. Instead, include more whole foods such as fruits, vegetables, whole grains, legumes, nuts, and seeds to name a few. Physicians would agree! According to Mayo Clinic, eating a diet rich in whole foods provides vitamins, minerals, fiber, and phytochemicals that may decrease the risk of cancer and many chronic diseases we see today such as heart disease, Parkinson's Disease, and Alzheimer's.

#### **5. I will lose weight if I go gluten-free.**

**FALSE.** There is no scientific evidence that a gluten-free diet will make you lose weight—**especially if you have celiac disease.** Once on a gluten-free diet, the digestive tract of a celiac individual starts to heal and absorb nutrients better. This can actually lead to *a healthy weight gain* after years of malabsorption.

Additionally, if a person's diet contains large amounts of packaged processed gluten-free foods, this can also cause weight gain. Highly processed foods often contain excess calories, processed carbohydrates, and fat. By removing processed foods from our diet, such as cookies, crackers, and cakes to name a few, we will be cutting down on excess energy intake, thus promoting a healthier weight.

#### **Where to go from here...**

After becoming familiar with current research and information regarding gluten, the next step is figuring out if going gluten-free will actually be beneficial to your health. If you are suffering from any of the symptoms discussed or think you may have a gluten-related disorder, seek help ASAP from a physician and a Registered Dietitian to help you manage your condition. Sending you lots of positivity on your road to optimal wellness!

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