To Gluten or Not to Gluten



Many people are familiar with the gluten-free movement, even if they don't tailor their diets around gluten-free foods. What began as a relatively unknown dietary restriction among people diagnosed with a certain intestinal disease or sensitivity has branched out to include many other people who avoid gluten for various other reasons.

What is gluten?

Gluten is a protein composite found primarily in wheat and other grains, such as barley, rye and spelt. The stored proteins of corn and rice are sometimes called glutens, but their compositions differ from true gluten.

Gluten often is found naturally in foods and is an important source of protein. Gluten also may be added to foods to supplement their protein content.

Gluten gives dough its elasticity and helps breads rise and keep their shape. Gluten usually gives baked goods a chewy texture. Baking will make gluten molecules come together, which stabilizes the shape of the final product. Gluten also may be used as a stabilizing agent in other foods, like sauces and ice cream.

Sensitivity to gluten is not the same as celiac disease, which is a condition that requires people to completely refrain from eating gluten.

Celiac disease

Celiac disease is an autoimmune disorder linked to the consumption of gluten. The Celiac Disease Foundation says the disease affects one in 100 people across the globe.

When those with celiac disease eat foods that contain gluten, their bodies see the protein as a foreign invader. As a result, the body mounts an immune system response and ends up attacking itself in the area of the small intestine, which is responsible for nutrient absorption. When the small intestine is damaged severely, it is unable to extract vitamins and minerals from food, leading to various health problems, including malnutrition.

Gluten sensitivity

When consuming gluten, a person with gluten sensitivity or intolerance does not experience symptoms as severely as one with celiac disease. For example, those with sensitivity do not experience small intestine damage or develop the autoantibodies found in the tissue of those with celiac disease.

A research team led by celiac expert Alessio Fasano, MD, discovered that gluten sensitivity is associated with an immune response that is very different from the response seen in celiac disease patients.

Despite this, those with gluten sensitivity may still exhibit similar symptoms to celiac disease. These include intestinal pain,

bloating, diarrhea, and cramps. In addition, depression, skin rashes and irritability may occur.

People who suspect a gluten sensitivity or celiac disease should visit a doctor for a simple blood test. Gluten should be avoided only if advised by a doctor, and individuals should not self-diagnose and treat symptoms.

Gluten-free doesn't mean grain-free

Many people are adopting gluten-free diets for a variety of reasons. While such a diet means passing on foods that contain wheat protein, such as certain breads, crusts and baked goods, it doesn't mean giving up on grains entirely. Many grains are acceptable for those adhering to a gluten-free diet, and such grains can help fill the void left by avoiding wheat products.

While people with Celiac disease have to avoid foods that contain gluten, many more people choose to remove gluten from their diets. This includes people with gluten allergies or sensitivities that are not as severe as Celiac disease but can cause some gastrointestinal discomfort. The relationship between gluten and certain behavioral problems in children and adults also has been studied. In a paper titled "Developmental Disorders and Dairy Products, Grains, Gluten and Other Proteins," researchers at the Bamford-Lahey Children's Foundation found that sensitivity to proteins in both dairy and wheat has been associated with a number of neurological and behavioral disorders in groups of adults and children.

To avoid gluten, a person has to remove wheat products, barley, spelt, rye, and triticale from his or her diet. However, there are



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