

Celiac Disease

and other gluten-related disorders

The Basics

Celiac disease is an autoimmune disorder that often runs in families. When someone with celiac disease eats gluten, the body causes an immune attack on the intestinal lining. Gluten is a protein found in wheat, barley and rye.

Some breakthrough findings were made in 2011. Research found that celiac disease is just one piece in a spectrum of gluten-related disorders. The spectrum also includes non-celiac gluten sensitivity, which has many of the same symptoms as celiac disease, and wheat allergy.

In this article, you will find basic information on three gluten-related disorders: celiac disease, non-celiac gluten sensitivity and wheat allergy.

What are gluten-related disorders?

The spectrum of gluten-related disorders refers to all conditions related to gluten, the protein found in all forms of wheat, rye and barley. They include celiac disease, wheat allergy, and non-celiac gluten sensitivity.

What is celiac disease?

Celiac disease is an autoimmune disorder that often runs in families. It affects nearly 1% of the population or about three million Americans. Since 1950 celiac disease has increased four-fold. When someone with celiac disease eats gluten, the body causes an immune attack on the intestinal lining. This harms the lining and prevents nutrients from being absorbed into the body. This leads to nutritional deficiencies and related health problems and symptoms.

Doctors and scientists are currently conducting research and exploring several different theories as to what causes celiac disease. At this time, we know that in people who have the genes needed to develop celiac disease and who are eating gluten, a particular event can activate, or “turn on,” this autoimmune disease. In some cases, stressful events like pregnancy, surgery, infection or severe emotional distress can trigger the onset of celiac disease.

The only treatment for celiac disease is a strict lifelong gluten-free diet. Although it can be challenging at first, individuals can learn to love the gluten-free diet. In fact, the gluten-free diet becomes a routine, a part of life.

Because celiac disease can mimic other diseases, such as irritable bowel syndrome, it can be difficult to receive a prompt and accurate diagnosis. Unfortunately, 95% of people with celiac disease may currently be undiagnosed or misdiagnosed with another condition. Those without a diagnosis are more likely to have bone disease such as osteoporosis, reproductive health problems like infertility, some cancers and an overall increased risk of early death.

What is wheat allergy?

Wheat allergy includes a spectrum of immune responses involving histamine that occurs within minutes to hours after wheat exposure. Typically, any one or a combination of skin, gastrointestinal, and respiratory systems undergoes the effects of food allergy. Along the spectrum, classic food allergy, wheat-dependent exercise-induced anaphylaxis (WDEIA) and wheat dependent aspirin-induced anaphylaxis (WDAIA) are included. We know that in some individuals, particularly with WDEIA, protein components in rye and barley can cross-react with gluten, thereby indicating the need to avoid gluten and not just wheat. Therefore, some individuals with a wheat allergy may need to follow a gluten-free diet too.

Allergic sensitivities, including those to wheat, can be diagnosed by skin prick testing or blood tests such as ImmunoCAP®. Both ImmunoCAP and skin prick tests will indicate a sensitivity to wheat or other foods. However only a food challenge will confirm your body's response. A food challenge should only be performed by a trained medical professional in the right setting. Individuals who have gluten-related symptoms but test negative for a wheat allergy may have non-celiac gluten sensitivity. Learn more about wheat allergy by reading Quest Diagnostics Health Trends: [Allergies Across America™ report](#).

What is non-celiac gluten sensitivity?

The research on non-celiac gluten sensitivity is only just beginning. Doctors estimate that up to 6% of the population, or 18 million Americans, are affected. Non-celiac gluten sensitivity is thought to mostly affect adults.

Non-celiac gluten sensitivity can be used to describe persons who experience symptoms similar to celiac disease because they, too, cannot tolerate gluten. However, non-celiac gluten sensitivity does not cause the same type of bodily response as celiac disease. Early research suggests that the body of a person with non-celiac gluten sensitivity acts to fend off an attacking substance but does not result in intestinal damage. Because of their shared symptoms, it's important that your doctor test for celiac disease and rule it out before considering non-celiac gluten sensitivity.

Unlike celiac disease, non-celiac gluten sensitivity does not appear to be genetic and it is not thought to cause long-term health complications.

At times you may have heard "gluten sensitivity" or "gluten intolerance" to describe what has recently been established as non-celiac gluten sensitivity. These terms are now discouraged. It is important to keep this in mind as you read health information presented online and in the media.

What are the symptoms of these gluten-related disorders?

Go to [symptoms of gluten-related disorders](#) to learn more. Here, you will be able to access and complete an at-risk checklist for these conditions. You can share the results with your trusted healthcare provider, who can determine the best next steps based on your personal medical history.

How are gluten-related disorders diagnosed?

The diagnoses of celiac disease, non-celiac gluten sensitivity and even wheat allergy all start with the simple collection of a blood test. Learn more about the role Quest Diagnostics plays in the diagnosis of gluten-related disorders [here](#).

Resources:

- Questions and Answers on Non-Celiac Gluten Sensitivity <http://www.celiaccentral.org/non-celiac-gluten-sensitivity/>
- Every day, researchers are working to gain a better understanding of celiac disease, its different presentations, and the expanding spectrum of gluten-related disorders. Ongoing research is also exploring potential drug treatments for celiac disease. Keep up with the latest breakthroughs by following the National Foundation for Celiac Awareness' Research Feed, proudly sponsored by, but developed independently of, Quest Diagnostics. To leave this site and access this Research Feed click here. <http://www.celiaccentral.org/research-news/>