

Gluten Intolerance: Symptoms, Causes, Tests, Treatment, and Health Guidelines

Celiac disease has gained much notoriety over the past few years and is characterized by an intense intestinal and extraintestinal [inflammatory immune response to gluten](#). Although those suffering from celiac disease present some of the most acute symptoms, many individuals without celiac disease experience **non-celiac gluten sensitivity**. Non-celiac gluten sensitivity affects the body in a similar manner, but there is [not a genetic test](#) that can determine whether or not a person might have non-celiac gluten sensitivity. Owing to the difficulty in diagnosing this condition, there are many who are left undiagnosed and continue to be impacted by non-celiac gluten sensitivity.

What is gluten?

[Gluten is a type of protein](#) found in grain or starch. Individuals who adopt a gluten-free diet often do so after experiencing varying symptoms and degrees of discomfort as a result of consuming food products that contain gluten.

Individuals with celiac disease, wheat allergy, and non-celiac gluten sensitivity or gluten intolerance experience a range of physiological responses to foods that contain gluten. Individuals who are sensitive to gluten are likely to experience varying symptoms; this is dependent on their level of gluten sensitivity. Those diagnosed with celiac disease ([an autoimmune disease](#)) experience the most intense reactions to gluten, with symptoms that closely mirror an acute allergic reaction.

Those who have been diagnosed or self-diagnosed with gluten sensitivity avoid gluten-based products due to various gastrointestinal discomforts or other bodily pains. Those with gluten intolerance can experience extreme discomfort, rivaling the pain of those suffering from celiac disease or wheat allergy.

Gluten Intolerance Symptoms

The most common [symptoms](#) of gluten intolerance may include:

- **Abdominal Pain**
One of the most chronically taxing symptoms of gluten intolerance, abdominal pain can affect every aspect of an individual's life. From a reduction in appetite, and thus a reduced consumption of essential nutrients, to enduring, seemingly incurable pain, this is one of the most life altering effects of gluten sensitivity.
- **Bloating**
Although not a direct cause of abdominal pain, bloating can be a contributing factor. Effects of this symptom can include, discomfort, reduction in appetite, and a decline in self-confidence.
- **Diarrhea**

This is one of the most damaging symptoms of gluten intolerance. Along with dehydration, which can cause acute damage to cells (and if left untreated can lead to death), diarrhea can reduce the effectiveness of the gut in absorbing vital nutrients and minerals. This failure to absorb proper nutrition can lead to a continual decline in health and well-being.

- **Constipation**

While less acutely serious than diarrhea, constipation can lead to extreme health complications. From simple discomfort to [diverticular disease](#) (and potentially cancer), the inability to void the bowels due to gluten intolerance is a serious concern.

Less common [symptoms](#) may include:

- **Headaches**

Although not a life-threatening symptom of gluten intolerance, headaches can play a limiting role in the enjoyment of life. From clouding judgement, to simply being an inconvenience, headaches lend difficulty to any activity.

- **Lethargy**

A general feeling of tiredness, lethargy can lead to inattentiveness and the inability to think clearly. Feeling poorly rested can lead to a decline in productive activity.

- **Inability to Think Clearly**

A dangerous symptom of gluten intolerance, the inability to think clearly can lead to poor decision making. With a reduced capacity for lucid thought, any number of consequences may arise from this symptom. One way to combat this problem is to support the brain with [cognitive capacity boosting supplements](#), in addition to adhering to a gluten-free diet.

- **Iron Deficiency**

Without absorption of a balanced array of vitamins and minerals, the body exhibits an inability to function properly. With the inability to properly absorb iron, as is seen in some people with gluten intolerance, the body becomes anemic, thus reducing ability to ward off disease. One further consequence of anemia is the reduction of [birth weight](#) of babies from anemic mothers. Without exclusion of gluten, and proper supplementation and [diet](#), cognitive and physical capacities can be drastically reduced.

- **Joint and Muscle Pain**

While debilitating in itself, joint and muscle pain can lead to further complications. One such complication is the inability of the suffering individual to achieve deep and restful sleep. It is well known that a lack of sleep can lead to the [disruption of metabolic processes](#) within the body. Without a proper wake/rest cycle the body is unable to heal itself, and additional physical deterioration and pain may occur.

- **Anxiety**

A huge issue in the modern world, anxiety tends to disrupt the body's natural healing processes. With the increased levels of cortisol that course through the body as a result of stress, repair time of damaged cells is greatly increased. Along with the immediate discomforts increased healing time can bring, continual stress and elevated hormone levels may lead to an increased risk of [cancer](#).

- **Depression**

Along with a decline in cognitive efficacy, depression can lead to a [subdued immune system response](#). In people that experience depression, as a symptom of gluten-intolerance, a change in diet can provide positive results in terms of [gut and brain health](#).

- **Skin Irritation**

One of the lesser known symptoms of gluten-intolerance, skin irritation can be just that, irritating. Through adherence to a gluten-free diet, and avoidance of external-use [products that contain gluten](#) (such as shampoos and conditioners), remediation of irritation can be achieved.

- **Arthritis**

A potentially crippling symptom of gluten-intolerance, arthritis can affect many of the physical aspects of life. The use of nonsteroidal anti-inflammatory drugs ([NSAIDs](#)) is commonly used to reduce inflammation, but they can have a negative effect on gut-health, and thus overall well-being. Through adhering to a gluten-free diet, it may be possible to reduce the effects of gluten-intolerance related arthritis.

- **Neuropathy**

Characterized by pain, tingling, numbness, loss of feeling, and weakness in limbs, [neuropathy](#), though less common, is an intensely damaging symptom of gluten intolerance.

Causes

While the condition is still poorly understood, researchers understand that inflammation from eating gluten is caused by [an inability of the small intestine to absorb nutrients](#). Although a small portion of the United States population has been diagnosed with celiac disease ([around 1%](#)), there are many more individuals who experience gluten sensitivities, and therefore, avoid gluten.

While the exact causes of gluten sensitivity has not been definitely determined, there is evidence that points towards the role of the microbiome because of its role in the digestion and absorption of nutrients. Gluten sensitivity may be able to be mitigated by boosting the health of our gut, which includes increasing our probiotic consumption, switching carbohydrates for healthy fats, and avoiding the overuse of antibiotics and antibacterials.

Testing for Non-Celiac Gluten Sensitivity

Unfortunately, there are no current tests to confirm gluten sensitivity (as there are with celiac disease and wheat allergy) and “testing” is conducted through the implementation of exclusion or [elimination diets](#), where the individual removes foods that contain gluten and closely monitors their bodily responses to identify if gluten is a contributing factor to their symptoms. While this isn’t rocket science, it has proven to be effective at determining gluten sensitivity.

Treating Gluten Intolerance

Currently, there is no cure for gluten allergy or intolerance. Like I discuss in *Grain Brain*, I recommend avoiding all foods that contain gluten, and for those with more sensitive systems (e.g. celiac disease and wheat allergy), avoiding cross-contamination of gluten containing foods with gluten-free foods.

Remember, there is no “dietary requirement” for gluten. We don’t need it! And most of the foods that contain gluten are loaded with carbohydrates, which should be substituted for a plant-based diet where caloric consumption is driven by healthy fats.

In order to improve overall health, a focus on improving gut health is a necessity. Along with improving processes directly related to digestion, improving gut health can bring a host of other benefits, like improved cognitive function and heart health. It can also help to [minimize the impacts of anxiety, stress, and depression](#) on our bodies and mental health.

For those already affected by gluten intolerance, poor gut health can exacerbate symptoms. One way to improve gut health is to incorporate foods and supplements rich in [prebiotics](#) (gut bacteria food) and [probiotics](#) (gut bacteria) into an already healthy diet. Avoiding gluten and gluten containing products, maintaining a complete and balanced diet containing plenty of prebiotics and probiotics, and taking the necessary vitamins and minerals that may be lacking in diet, can help to minimize the impacts of gluten intolerance.