

# Nutrition and Health Info Sheet



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*Gluten-free products are now more readily available in stores, and many Americans think a gluten-free diet can help them lose weight or is healthier than a diet that has gluten.<sup>1</sup> This belief has created gluten-free fad. Gluten-free foods are a \$3.42 billion global business with a projected \$24 billion in sales by 2020.<sup>2,3</sup>*



## What is gluten?

Gluten is a type of protein found in wheat, rye, and barley. Eating foods with gluten may cause an autoimmune reaction in those that have celiac disease, an allergic reaction in those who have a wheat allergy, or other immune reactions.<sup>4</sup> These reactions are called “non-celiac gluten sensitivity.”

## What is celiac disease?

Celiac disease is an autoimmune condition where a reaction is triggered by eating gluten. In a person who has the disease, eating gluten will cause damage to the lining of the small intestine. The symptoms include chronic diarrhea, weight loss, abdominal pain, and even vomiting or constipation, and the symptoms may take weeks to years to show after eating gluten.<sup>2,4</sup> It can also result in anemia, osteoporosis, and neurological issues.<sup>4</sup>

## How is celiac disease diagnosed and treated?

Medical tests (antibody tests and biopsy of the small intestine) are used to diagnose celiac disease. It is treated with a gluten-free diet.<sup>2,4</sup>

## Types of negative responses to gluten consumption

**Autoimmune**  
(celiac disease)

**Allergic**  
(wheat allergy)

**Other Immune**  
(non-celiac gluten sensitivity)

## What is a wheat allergy?

Wheat allergy is an immune reaction to wheat proteins that causes an allergic reaction, affecting the skin, gastrointestinal tract, or respiratory tract.<sup>4</sup>

## How is wheat allergy diagnosed and treated?

Wheat allergy is diagnosed with medical tests (skin prick test and antibody tests). It can be treated by removing wheat from the diet. Medications such as antihistamines and corticosteroids may be used to treat symptoms.<sup>2,4</sup>

## What is non-celiac gluten sensitivity?

Non-celiac gluten sensitivity (NCGS) occurs when a person has symptoms similar to those of celiac disease, but have not been diagnosed with the disease.<sup>4</sup> Symptoms can also be very similar to those of Irritable Bowel Syndrome (IBS) and other food sensitivities.<sup>5</sup> The symptoms include behavioral changes, bone or joint pain, muscle cramps, leg numbness, weight loss, and chronic fatigue.<sup>4</sup> Other symptoms may include headaches or migraines, a 'foggy mind', eczema, anemia, and depression.<sup>6</sup>

## How is non-celiac gluten sensitivity diagnosed and treated?

While NCGS appears to be similar to celiac disease, the key difference is that NCGS does not damage the small intestine. Because there is no physical damage present in NCGS, it is difficult to make a diagnosis to help reduce IBS-like symptoms.<sup>4,5</sup>



## If you don't have a gluten-related disorder, is a gluten-free diet healthier?



- Contrary to popular belief, a gluten-free diet is not healthier for those who do not have a gluten-related disorder. There is no scientific evidence that a gluten-free diet will help with weight loss and health. <sup>1,2</sup>
- Often, gluten-free diets have more fat and are low in vitamin B12, zinc, iron, folate, and fiber. <sup>1,2</sup> While more gluten-free options are available thanks to the growing market, gluten-free products are more expensive and there is no evidence that a gluten-free diet will benefit the general population.<sup>2</sup>

### References:

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