

## Module 18

A person wearing a red long-sleeved shirt is holding up their right hand with the palm facing forward in a 'stop' gesture. In the foreground, there is a white plate with two slices of toast, a silver fork, and a silver knife. The background is a light-colored wall with a subtle pattern of grey swirls.

**WHO SHOULD  
AVOID GLUTEN?**

# GLUTEN

Traditional pizza, cookies, cakes, and pasta all contain one common ingredient: gluten. *Gluten*, which means “glue” in Latin, is a protein found in wheat, barley, and rye. The protein helps to bind breads, pasta, and desserts to create a denser product.

Recently, the gluten-avoidance phenomenon has become increasingly popular. However, avoiding this sometimes-troublesome protein may not be entirely necessary for everyone.

There are three conditions, in particular, for which a gluten-free lifestyle is necessary for optimal health.

- 1| Celiac disease
- 2| Gluten sensitivity
- 3| Wheat allergy

Although there is some overlap in the associated symptoms, they are unique conditions.

**Read on to discover the differences between each gluten-related disorder.**

## 1. CELIAC DISEASE

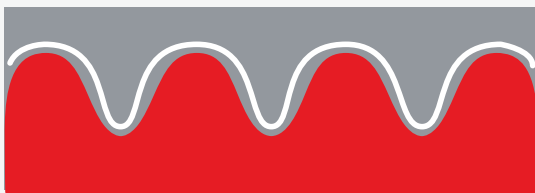
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In the past several decades, more people have noticed that consuming bread products containing gluten has been related to gastrointestinal issues, such as nausea, stomach pains, diarrhea, and – in more severe cases – vomiting and progressive weight loss.

Medical professionals discovered that this is sometimes due to an autoimmune condition known as celiac disease. Upon consumption of gluten, those with celiac disease experience a progressive deterioration of the villi, or hairlike projections, within the small intestine. Villi help absorb vitamins and nutrients to nourish the body and sustain energy for everyday activities. Malabsorption can occur when these villi begin to flatten as a result of gluten consumption, causing anemia, irritability, weight loss, stomach pains, and other gastrointestinal complications.

Although there is no cure for celiac disease, one may adhere to a gluten-free diet to slowly reverse the damage in the small intestine. A gluten-free diet eliminates all forms of barley, wheat, and rye – even in the smallest amounts.

### Villi Comparison



Healthy villi



Flattened villi caused by celiac disease



## Diagnosis

Approximately 1% of the U.S. population has celiac disease, but many may go undiagnosed due to the wide range of symptoms it can produce.

### **There are a few ways doctors diagnose celiac disease:**

- A biopsy of the small intestine
- An endoscopy to view images of the villi
- A blood test to measure amounts of certain antibodies that are commonly elevated when reacting to gluten
- Those with a first-degree relative with the condition may be more likely to also have it; genetic testing can be used to diagnose celiac disease

Although diagnostic measures are available, many people experiment with avoiding gluten and discover that they feel better without it. Because the symptoms subside once people begin a gluten-free diet, getting a proper diagnosis is difficult.

One problem with this approach is that celiac disease and irritable bowel syndrome (IBS) have similar symptoms. Both conditions may cause mild to moderate gastrointestinal complications. While some people with IBS may see improvements with a gluten-free diet, it may not treat the root cause. Elimination diets and food journaling can help reveal whether other food sensitivities coexist.



## Symptoms

### Celiac-specific

- Anemia
- Dental and bone disorders
- Mouth sores
- Skin rash
- Tingling in the legs and feet

### IBS-specific

- Mucus in the stool

### Shared symptoms

- Bloating
- Constipation
- Diarrhea
- Flatulence
- Muscle cramps

## 2. GLUTEN SENSITIVITY

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Gluten sensitivity (also referred to as “non-celiac gluten sensitivity”) is the most common gluten-related disorder. It’s estimated that gluten sensitivity affects up to 6% of the population, and although it’s difficult to say how many people actually have it, it seems to be on the rise. Individuals who have a gluten sensitivity experience symptoms when they consume gluten-containing foods but do not experience the same type of damage to the intestinal villi or develop the specific antibodies that are characteristic of celiac disease. Gluten sensitivity is a topic of new research, and there is much to learn about why this condition occurs.



### Diagnosis

Gluten sensitivity is considered a “diagnosis of exclusion.” This means that based on symptoms that arise, multiple tests may be ordered to rule out other possible conditions as there aren’t any diagnostic criteria specific to gluten sensitivity at this time. Once other conditions are ruled out, gluten sensitivity may be diagnosed. Due to its variable symptoms, though, it is likely that more people suffer from gluten sensitivity than are actually diagnosed with it.



### Symptoms

- Abdominal pain
- Anemia
- Depression
- Diarrhea
- Eczema
- Fatigue
- Headache
- Joint pain

### 3. WHEAT ALLERGY

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Individuals with a wheat allergy have an allergic reaction to wheat. Unlike celiac disease and gluten sensitivity, adverse reactions occur almost immediately (less than two hours) and, in extreme cases, can be fatal. Individuals with a serious wheat allergy may experience symptoms by simply inhaling wheat. Unlike celiac disease and gluten sensitivity, individuals with a wheat allergy do not necessarily have to follow a gluten-free diet; all wheat should be avoided, but foods containing rye and barley may be acceptable. It is important to note that even if a product doesn't contain wheat, it may be manufactured on equipment that is used to produce foods that contain wheat.



#### Diagnosis

Wheat allergy is more likely to occur in children; some children can outgrow it. Wheat is considered one of the top allergens. A skin prick test may be used to determine diagnosis, but blood tests may be more accurate.



#### Symptoms

- Diarrhea
- Hives
- Nausea/vomiting
- Rashes
- Sneezing
- Swelling of the throat
- Anaphylaxis (in extreme cases)

## **WORKING WITH CLIENTS WHO HAVE GLUTEN-RELATED DISORDERS**

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If you suspect your client has a gluten-related disorder, encourage him or her to seek help from a qualified medical professional to ensure the correct diagnosis has been made. The symptoms of these conditions overlap, so a proper diagnosis will ensure that the condition is being treated properly and you can give your client the support he or she needs.



## REFERENCES

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