

Gluten: Allergy or Intolerance

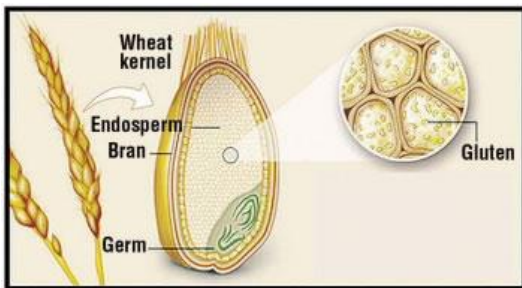
Allergy vs. Intolerance vs. Celiac Disease (CD)

What is gluten?¹

Gluten - A protein found in certain grains that helps form the structure of certain breads, pastas and pastries.

Gluten is found in:

- o Wheat
- o Barley
- o Rye
- o Triticale (wheat + rye)
- o Some oats



Gluten or Wheat Allergy?¹

Allergy - Immune system reaction that affects the bodies organs. Body is trying to defend against the item.

Signs & Symptoms: usually occur within minutes after exposure:

- o Hives
- o Swelling
- o Breathing difficulties
- o Vomiting
- o Eczema or atopic dermatitis
- o Sinus issues
- o Anaphylactic shock
- o May be life-threatening

**Allergy may NOT pertain to gluten, BUT wheat.*

Wheat is 1 of the top 8 Common Food Allergens!

***Other gluten containing foods:** rye, barley, and oats. Important to identify if allergies are present in all gluten containing grains.

Gluten Intolerance¹

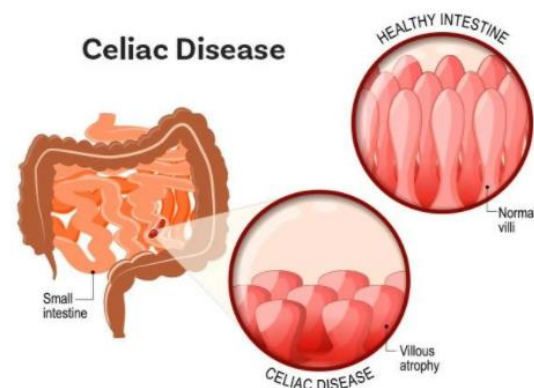
Intolerance - Body is unable to properly breakdown the gluten/wheat. Also known as: **Non-Celiac Gluten Sensitivity (NCGS)** or **Non-Celiac Wheat Sensitivity (NCWS)**

Signs & Symptoms when gluten is consumed (similar to celiac disease):

- o Gas
- o Bloating
- o Abdominal pain
- o Diarrhea / Constipation
- o Foggy mind
- o Depression
- o ADHD-like behavior
- o Headaches
- o Bone or joint pain
- o Chronic fatigue

Celiac Disease (CD)¹

Celiac Disease (CD) - Autoimmune disease where gluten destroys villi in the small intestine. The villi help with digestion and absorption of nutrients into the body.



Signs & Symptoms when gluten is consumed:

- Same as NCGS with addition of possible weight loss.

Testing^{1,2}

Wheat allergy: Diagnosed through either skin or blood test.

Gluten intolerance: Diagnosed if both the allergy and CD tests were negative, and signs/symptoms improved after eliminating gluten from diet.

Celiac Disease: Different types of testing offered:

- Blood tests (tTG-IgA, EMA, IgA, DGP IgA & IgG, and/or I-FABP)
- Genetic testing via blood, saliva, or cheek swab (HLA DQ2 & DQ8 genes); May be expensive
- Video Capsule Endoscopy (requires anesthesia)
- Radiology

****MUST be eating gluten every day for a certain amount of time in order for any of the testing's listed above to be accurate. Timeframe dependent on age and/or severity of symptoms.**

Treatment¹

****Currently the only treatment for wheat/gluten allergy, intolerance and CD is a Gluten Free (GF) diet**

Grains to Avoid on a Gluten-Free Diet

<p>Wheat</p> <ul style="list-style-type: none"> Couscous Durum Einkorn Emmer Farina Farro Freekeh Graham Flour Kamut Kernza Matza/Matzoh Seitan Semolina Spelt Triticale <p>Wheat (bran, germ, starch, protein)</p>	<p>Barley</p> <ul style="list-style-type: none"> Barley (flour, pearl) Bulgur Beer (unless made from GF grains) Brewer's Yeast Malt (unless noted from another GF grain) Malt Vinegar Malted Milk <p>Oats</p> <p>Regular oats are contaminated. Buy only "Purity Protocol" oats: oats grown, harvested & packaged free from gluten. Also look for certified GF. (More Info at gfJules.com)</p> <p>Rye</p> <ul style="list-style-type: none"> Rye Rye Flour
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Gluten Free Items that are Commonly Mistaken for Containing Gluten

- Rice
- Corn (e.g. corn tortillas)
- Tapioca
- Buckwheat
- Beans/Legumes
- Quinoa
- Soy
- Millet
- Potatoes (e.g. french fries, chips)

****Most stores offer GLUTEN FREE breads, pastas, and desserts.**

BEWARE of Possible Hidden Gluten Containing Items

- Certain sauces / dressings
- Pre-packaged / frozen foods
- Flavored rice packages
- Soups / broth
- Mixed seasonings / spices
- Seasoned meat

Summary¹:

- Testing is important for accurate diagnoses.
- NCGS and CD have very similar signs & symptoms. However, it is still unknown the exact cause & appropriate testing for gluten intolerance.
- Depending on diagnoses, eliminating gluten can significantly reduce symptoms and prevent long-term health issues especially for those with CD.

References:

1. Celiac Disease Foundation. <https://celiac.org/>. Published 1998. Accessed September 12, 2020.
2. Allergy Testing. ACAAI Public Website. <https://acaai.org/allergies/allergy-treatment/allergy-testing>. Published October 15, 2018. Accessed September 12, 2020.