

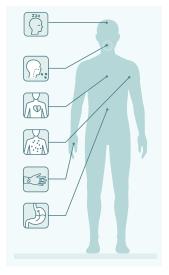


# Which Patients Need the Corn Zoomer?

Conditions and Symptoms Associated with corn sensitivity, occurring up to 72 hours after consuming corn, include:

- Bronchitis and asthma symptoms
- Rashes (eczema)
- Arthritis
- Gas
- Bloating
- Fever
- Fatigue
- Diarrhea
- Abdominal pain

- Known intestinal permeability (such as on the Vibrant Wheat Zoomer)
- Nausea and vomiting
- Skin itchiness and redness
- Joint pain
- Muscle stiffness and swelling
- Excessive sweating
- Weakness





# **Quick Interpretation of Selected Markers**

Corn zein

Corn zein has been known to induce a gluten-like cellular immune response in some celiac disease patients. The primary amino acid sequences of corn zeins can also fit into the HLA binding sites on cell receptors for gliadin once they are deamidated.

Corn-Wheat overlap epitope

These overlapping epitopes can be problematic for wheat sensitive individuals who are on a gluten-free diet, but not a corn-free diet. Detection of antibodies to corn-wheat overlap epitopes is predictive of an immune reaction to both corn and wheat.

**Corn Cry Proteins** 

Cry (short for "crystal") proteins have been used as in-grain pesticides (cannot be removed by washing) by adding Bt strains to the DNA of genetically modified organism (GMO) corns. Antibodies to corn cry proteins indicate sensitivity to specifically GMO corn.

\*Other markers on the Vibrant Corn Zoomer indicate sensitivity to corn, and elimination of corn-containing foods, beverages, and personal care products is recommended.











### **Clinical Connections**

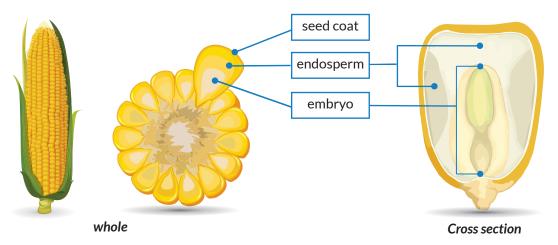
Corn is a grain that is heavily used in gluten-free foods, and, therefore, patients following a gluten-free diet that do not experience symptom improvement after fully eliminating gluten may benefit from testing to determine if they also have an underlying corn sensitivity.

Not only is corn widely prevalent in foods, but its various forms and derivatives are present in beverages, vaccines, medicines, supplements, and household items such as shampoo and body powder.

The Vibrant Corn Zoomer can definitively detect whether patients are sensitive to proteins in corn due to:

- A combined detection of both IgA and IgG, which reduces the possibility of missing reactivity
- Identification of peptides instead of proteins, reducing the possibility of cross-reactivity with similar species
- Peptide-based microarray technique eliminates the requirement of testing different forms of corn (raw vs. cooked) and removes the false positives caused by cross reaction with pollens often seen in raw extracts
- Improved understanding of unexplained symptoms associated with gastrointestinal, neurological, dermatological, or behavioral disorders
- Scale of reactivity may help make decisions between rotation or elimination diets

Consider ordering the Corn Zoomer with a Wheat Zoomer to get the most comprehensive view of grain sensitivity, intestinal permeability ("leaky gut"), and make the most accurate nutrition recommendations for patients regarding elimination of wheat, gluten, and corn.





# What Does the Corn Zoomer Include?

Proteins in the Corn Family		Proteins Specific to GMO Corn
Corn Zein	Corn Endochitinase	Corn Cry Protein
Corn-Wheat overlap epitope	Corn Profilin	
Corn Albumin	Corn Lipid transfer protein	
Corn Globulin	Corn Thioredoxin	
Corn Glutenin	Corn Exopolygalacturonase	
Corn Expansin	Corn Pollen Allergen	

#### Regulatory Statement

The general wellness test intended uses relate to sustaining or offering general improvement to functions associated with a general state on the health while making reference to diseases or conditions. This test has been laboratory developed and its performance characteristic determined by Vibrant America LLC, a CLIA and CAP certified laboratory performing the test. The test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S. certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.

