VibrantWellness

Peanut Zoomer

Key Clinical Messages

What is the Peanut Zoomer Test?

Vibrant's Peanut Zoomer is a blood test that detects sensitivity to all known antigenic peptides in peanuts. The Peanut Zoomer assesses IgA and IgG reactions to 17 different peptides in peanuts. This test can be ordered as a stand-alone test or as part of a Zoomer bundle by sampling the blood to determine an individual's risk for peanut sensitivities.

Which Patients Benefit from This Test?

Conditions and symptoms which may benefit from Peanut Zoomer testing include:

- Gastrointestinal dysfunction
- Diarrhea
- Constipation
- IBS
- Neurological disorders
- Autoimmune diseases
- Inflammatory conditions
- Skin manifestations
- Eczema
- Headaches/migraines
- Joint pain
- Asthma
- Cognitive impairments
- Brain fog
- Fatigue
- History of nut sensitivity

Regulatory Statement:
This test has been laboratory developed and their performance characteristics determined by Vibrant America LLC, a CLIA-certified laboratory performing the test CLIA#:05D2078809. 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.

Why Order the Peanut Zoomer?

The Peanut Zoomer provides an in-depth look at an individual's immune reaction to different peanut peptides. By analyzing both IgA and IgG reactions to the most antigenic peptides found in peanuts, providers can gain a more thorough understanding to determine whether their patients have a food sensitivity to peanuts.

Unlike a food sensitivity panel, the Peanut Zoomer analyzes immune reactions to peptides instead of whole proteins.

Under normal conditions, proteins are broken down in the gastrointestinal tract by digestive enzymes and hydrochloric acid into larger polypeptides and then into smaller peptides and amino acids. Smaller peptides and amino acids are then absorbed through the intestinal epithelial lining into circulation for systemic use.

Peptide-level food sensitivity testing models potential immune reactions under normal digestion and absorption conditions and increases test sensitivity because food peptides are particular to the food they derive from. Testing at the peptide level reduces the likelihood of cross-reactivity or being 'confused' by the immune system for other proteins. It is also the only way to detect antibodies against all protein regions.

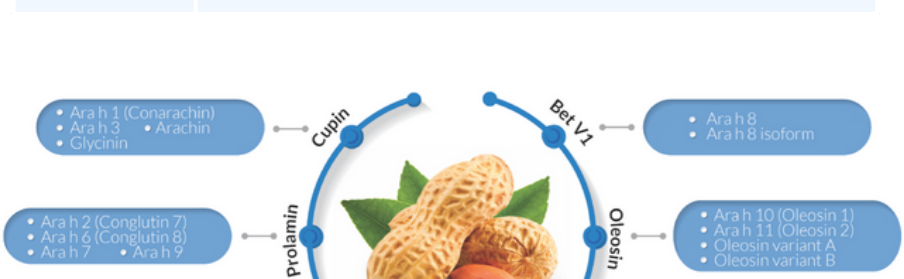
Peanuts are a known highly allergenic food but are also a common food sensitivity, typically described as a delayed hypersensitivity food reaction. Since delayed reactions can occur from hours to days after consumption, it's more difficult to identify food sensitivities compared to food allergies.

A Peanut Zoomer can help patients understand whether peanuts are a well-tolerated food or food associated with loss of immune tolerance.

What Markers Are Included on the Peanut Zoomer?

The Vibrant Peanut Zoomer tests for 17 different peptides:

Peanut Family	Peptide Antigens	
Cupin Family	Ara h 1 (Conarachin) Ara h 3	Arachin Glycinin
Prolamin Family	Ara h 2 (Conglutin 7) Ara h 6 (Conglutin 8)	Ara h 7 Ara h 9
Profilin Family	Ara h 5	
Bet V1 Family	Ara h 8	Ara h 8 isoform
Oleosin Family	Ara h 10 (Oleosin 1) Ara h 11 Oleosin 2)	Oleosin Variant A Oleosin Variant B
Defensin Family	Ara h 12 (Defensin 1)	Ara h 13 (Defensin 2 and defensin 3)



Reference Ranges & Interpretation of Results

Reference Ranges:
Reference ranges have been established using 192 healthy individuals.

Results:
Vibrant uses proprietary fluorescent analysis, which is designed to assay pooled IgG (subclasses 1,2,3,4) and IgA (subclasses 1,2) antibodies to foods. The classification of positive to moderate to negative denotes the level of IgG and/or IgA antibodies detected through the analysis. A positive result indicates an increased IgG and/or IgA level to the antigen with respect to the reference range (>97.5th %). A moderate result indicates a moderately elevated IgG/IgA level (92-97.5th %), and a negative result indicates a low/normal IgG/IgA level (<92nd %).

Example of Results

Positive		Moderate		Negative
IgG	**IgA**	**IgG**	**IgA**	
Oleosin Oleosin Variant A	**Cupin** Ara h3		**Cupin** Glycinin **Beta V1** Ara h8, Ara h8 isoform	**Cupin** Ara h1 (Conarachin) Arachin **Prolamin** Ara h2 (Conglutin 7) Ara h 6 (Conglutin 8) Ara h 7 Ara h 9 **Profilin** Ara h 5 **Oleosin** Ara h 10 (Oleosin 1) Ara h 11 (Oleosin 2) Oleosin Variant B **Defensin** Ara h 12 (Defensin 1) Ara 12 (Defensin 2 & Defensin 3)

Methodology

Vibrant is a CLIA-certified and CAP-accredited lab that utilizes the most reliable, FDA- approved methodologies to measure peanut peptides.

- Vibrant uses a peptide microarray microchip technology
  - Peptides are synthesized on silicon wafers to detect antibody-antigen binding at the epitope level
- Peptide microarray technology advantages:
  - Allows for the ability to *zoom in on the **specific peptide sequences*** with a high level of precision
  - High level of sensitivity and specificity
  - Less false positive and negative results
  - High reproducibility

Which Tests Pair Well with the Peanut Zoomer?

Food Zoomer Bundle: to assess immune reactions (IgA and IgG) to other peptides in commonly consumed foods

- Wheat Zoomer, Corn Zoomer, Dairy Zoomer, Egg Zoomer, Grain Zoomer, Lectin Zoomer, Nut Zoomer, Soy Zoomer

Food Sensitivity Test: to assess IgG and IgA immune reactions to raw, whole, water-soluble proteins

Test Prep for Blood Sample

Collection: One (1) EDTA specimen tube

Hydration Restrictions: None

Fasting Restriction: Not required.

Diet Restrictions: None. Food challenges before testing are not recommended.

Medication Restrictions: None

Dietary Supplement Restrictions: None

Interpretation of Results
Positive for IgG: Consider an elimination diet.
Moderate for IgG: Consider an elimination diet or rotation plan.
Positive/Moderate for IgA: Consider an elimination diet.

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