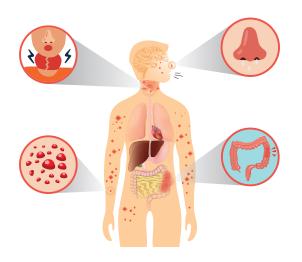




### Which Patients Need the Soy Zoomer?

Conditions and symptoms associated with soy sensitivity include:

- Atopic dermatitis
- Eczema
- Diarrhea
- Excessive gas or bloating
- Asthma-like symptoms
- Wheezing
- Difficulty breathing
- Runny nose or watery eyes





## **Facts About Soy**

- Soy is considered a highly antigenic food and is one of the 8 major allergens found in Western food processing
- Some of the proteins in soy can cause **soy dust sensitivity** when inhaled and produce asthma-like symptoms in sensitive individuals<sup>1-2</sup>
- Soy in the United States is almost **entirely genetically modified (GM)** and, like corn and other GM crops, contains "cry" proteins, a pesticidal protein added during genetic modification and which, when combined with complementary herbicides during growing, may contribute to health problems in humans and other mammals, particularly increased adiposity and immune abnormalities<sup>3</sup>











## **Clinical Connections**



Because soy is so ubiquitous in the food, beverage, and pharmaceutical industry in the United States, sensitivity to soy can often be difficult to detect through simple elimination diets alone. Testing for antibodies to peptides in soy is the only way to definitively assess a patient for soy sensitivity



Soy is also a common cause of asthma-like symptoms in some sensitive individuals, and the Soy Zoomer can identify if those individuals may see symptom relief on a soy-free diet



Due to the highly genetically modified nature of soy in the United States, differentiating between sensitivity to GM or non-GM soy may aid in individualizing nutrition elimination and liberalization of diet in affected individuals



Because soy sensitive individuals may have concomitant sensitivity to peanuts or tree nuts, consider running the Peanut Zoomer panel and the Nut Zoomer panel for comprehensive testing



# What Does the Soy Zoomer Include?

Antigen	Associations
Gly m 1	Principle antigen in soybean dust-related sensitivities; can permeate mucosal membranes of the respiratory tract and induce asthma-like symptoms
Gly m 2	Also associated with soybean dust-related sensitivities and may induce asthma-like symptoms upon inhalation
Gly m 3	An antigenic protein in soy that is denatured during cooking and fermentation
Gly m 4	A major soy antigen that can produce sensitivity reactions in the gastrointestinal tract, respiratory mucosa, and skin, with severe reactions resulting in anaphylaxis; the protein is somewhat heat labile, but susceptible to denaturation in fermentation; Gly m 4 also has some degree of cross-reactivity with birch pollen
Gly m 5	A soy protein with homology to the peanut antigen Ara h 1, which may produce cross-reactivity in peanut sensitive individuals
Gly m 6	A soy protein with homology to the peanut antigen Ara h 3, which may produce cross-reactivity in peanut sensitive individuals
Gly m 7	A heat-resistant antigen in soy with cross-reactivity to peanut antigens
Gly m 8	A highly predictive antigen in soy used to detect allergic response in sensitized individuals, and may also be highly specific to soy sensitivity
Cry1Ac GMO protein	A pesticidal crystal protein antigen found specifically in genetically modified (GM) soy
Gly m Bd 30k	A soy antigen specifically found in high rates in soy sensitive individuals with atopic dermatitis
Kunitz soybean trypsin inhibitor	A potent soy antigen that can induce anaphylaxis in allergic sensitized individuals; in individuals with soy sensitivity, however, symptom severity is unknown

### Reference:

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- Then C, Bauer-Panskus A. Possible health impacts of Bt toxins and residues from spraying with complementary herbicides in genetically engineered soybeans and risk assessment as performed by the European Food Safety Authority EFSA. Environmental Sciences Europe. 2017;29(1):1.

#### Regulatory Statement