



**celt naturals**

# Allergic Immunological Reactions

Research indicates that many degenerative diseases such as Arthritis, Asthma, Attention deficit-hyperactivity disorder (ADHD), Eczema, Epilepsy, Fatigue, Gallbladder disease, Inflammatory bowel disease, Irritable bowel syndrome are associated with allergic reactions(4).

The term allergy is sometimes used to indicate any abnormal immune reaction; more commonly however allergy is used synonymously with hypersensitivity. There are two major forms:

## **Immediate vs Delayed Hypersensitivity**

Immediate hypersensitivity can produce such symptoms as allergic rhinitis, conjunctivitis, allergic asthma, atopic dermatitis and others.



These symptoms result from the production of antibodies of the IgE subclass, instead of the normal IgG/IgA antibodies, in response to particular antigens.

When the person is again exposed to the same allergen (antigen), the allergen bonds to the antibodies on the mast cell surface, stimulating the masts cells to secrete various chemicals like histamine and leukotrienes.



These chemical mediators of allergy cause the constriction of bronchioles, vasodilatation of blood vessels, and increased capillary permeability, resulting in the symptoms of allergy.

A longer time is required for the development of symptoms in delayed hypersensitivity (hours to days). This may be due to the fact that immediate hypersensitivity is mediated by antibodies, while delayed hypersensitivity results from an abnormal T cell response.

One of the best known examples of delayed hypersensitivity is contact dermatitis caused by poison ivy (*Rhus radicans*), poison oak (*Rhus diversiloba*), and poison sumac (*Rhus toxicodendron*).

## **Basophils**

Normally when activated basophils degranulate to release histamine and secrete leukotrienes. Each of these markers contributes to inflammation.

Recent evidence suggests that basophils are a major source of the cytokine, interleukin-4. Basophils are responsible for the development of IgE – mediated chronic allergic inflammation independently of T cells and mast cells(1) through the induction of Interleukin-4.(2)

**This information has been compiled for Healthcare Professionals only, and is not for public distribution.**

## Study on the Immunological Effects of Sterol 117™:

A randomized double blind placebo control clinical trial on Sterol 117™ was completed at the University of Guelph, Ontario, Canada.

This pilot study was conducted at the Human Nutraceutical Research Unit and was designed to investigate the effect of supplementation with Sterol 117™ on immunological response to allergens.

The participants in the treatment group, when compared to the control group, showed a statistically significant reduction in the basophil count. These leukocytes are responsible for histamine release.

Patient compliance using Sterol 117™ is excellent. The recommended dose during the trial was a loading dose of 1 capsule in the morning, and one capsule in the evening for 7 consecutive days.

Participants were then advised by the research team, to reduce the dosage to one capsule per day for the duration of the study.

The research also showed a substantial reduction in the pro-inflammatory cytokine IL-6 levels in the treatment group when compared to the control group.

Immune Parameters	Eosinophils	Basophils	IL-6
Sterol 117 Day 0	0.24	0.23	1.261
Sterol 117 Day 28	0.20	0.01	0.937
Sterol 117 Difference Day 28-Day 0	-16.7%	-95.7%**	-25.7%
Control Day 0	0.23	0.13	1.318
Control Day 28	0.20	0.04	1.179
Control % Difference Day 28-Day 0	-13.0%	-69.2%	10.5%
% Change	-3.7%	-26.5%	-15.2%

For further information call: 1-800-250-8024

Sterol 117™ (celt naturals)	Amounts per serving
Serving size	1 capsule
Number of servings per container	60
Total Phytosterols	300 mg
Beta Sitosterol	117 mg
Enzogenol™	20 mg
Cellasate™	50 mg
<p><b>Suggested Dose:</b> Take 2 capsules once per day for the first 7 days, followed by 1 capsule per day thereafter on rising. Take with water or fruit juice 30 minutes before eating, or 2 hours after eating, or as directed by your health practitioner. <b>DO NOT CONSUME WITH MILK</b></p> <p><b>THIS SUPPLEMENT MUST NOT BE TAKEN BY ORGAN OR TRANSPLANT RECIPIENTS™.</b></p> <p>More serious conditions may require 2 capsules per day, one in the morning and one in the evening.</p>	

### \*\* Statistically significant, p<0.05

Sterol 117™ has demonstrated that it has an effect on histamine release from human basophils and also on IL-6 levels and consequently can substantially alleviate symptoms associated with airborne allergens. Further studies will be conducted with a larger patient population and a longer trial period to investigate other areas of immunological response. Allergic Immunological Reactions

### Reference :

- Mukai, Matsuoka et al Immunity. 2005 Aug;23(2):191-202
- Falcone et al. Exp Dermatol 2006 Nov;15(11):855-64
- Buskila, Sarzi-Puttini IMAJ 2008;10:77-78
- Kaufman W. Food-induced, allergic musculoskeletal syndromes. Ann Allergy 1953;11:179-184
  - Hicklin JA, McEwen LM, Morgan JE. The effect of diet in rheumatoid arthritis. Clin Allergy 1980;10:46
  - Nanda R, James R, Smith H, et al. Food intolerance and the irritable bowel syndrome. Gut 1989;30:1099-1104.
  - Rowe AH, Rowe A Jr. Chronic ulcerative colitis: atopic allergy in its etiology. Am J Gastroenterol 1960;34:49-6
  - Riordan AM, Hunter JO, Cowan RE, et al. Treatment of active Crohn's disease by exclusion diet: East Anglian Multicentre Controlled Trial. Lancet 1993;342:1131-113



**Sterol 117™**  
is available from

**MediHealthPro**

**1.877.327.8511**

