



## Ultra Asthmatica™

Serving Size 1 capsules

Servings Per Container 90

### Amount Per Serving

Vitamin A (88 % Beta Carotene and Mixed Carotenoids, 12% Retinyl Palmitate)	15,000 IU
Vitamin C (Ascorbic Acid)	100 mg
Vitamin E (d alpha tocopheryl succinate)	20 IU
Vitamin B6 (Pyridoxal 5' phosphate)	10 mg
Folic Acid (Calcium folinate)	100 mcg
Vit B12 (Methylcobalamin, Cyanocobalamin)	300 mcg
Magnesium (Glycinate)	50 mg
Selenium (selenomethionine)	10 mcg
Tylophora indica/asthmatica extract	15 mg
Picrorhiza kurroa root extract (4% kutkin)	75 mg
Piper longa fruit extract	50 mg
Boswellia serrata gum extract (60% Boswellic acids)	150 mg
Zingiber officinale extract (5% gingerols)	30 mg
Coleus forskohlii extract (18% forskolin)	30 mg
Quercetin	100 mg
Bromelain (2400 GDU)	80 mg

**SUGGESTED DOSE:** As a dietary supplement, take 1-2 capsules with each meal and before bed, or as directed by your health care practitioner.

# ULTRA ASTHMATICA™

- Enhances pulmonary function and relaxes bronchiole smooth muscle to support unrestricted breathing.
- Reduces airway inflammation and bronchiole reactivity.
- Protects lungs and mucous membranes from oxidative damage.
- Promotes a balanced immune system by decreasing allergic and inflammatory reactions.

**UltraAsthmatica** is a new formulation that combines the most effective botanicals, nutrients, and enzymes to enhance lung function and reduce airway inflammation. In allergic conditions there is an over abundance of T-helper 2 white blood cells, which promote the growth and differentiation of antibodies, mast cells and eosinophils. These antibodies form immune complexes with allergens which bind and cross link on mast cells triggering the release of histamine and leukotrienes. These powerful biochemical mediators increase smooth muscle reactivity and constriction, inflammation and secretion of mucous in the delicate membranes of the respiratory tract. These respiratory tissues respond by swelling, which causes significant wheezing, coughing, shortness of breath, and congestion in a person with an allergic condition. UltraAsthmatica is formulated to discourage this allergic and inflammatory cascade, protect these delicate tissues from oxidative damage caused by inflammatory mediators and act to relax the smooth muscles of the respiratory tract. In addition UltraAsthmatica supplies key nutrients often deficient in those people suffering from chronic allergic reactions.

### **Vitamin C and Vitamin E**

As powerful antioxidants, vitamin C and vitamin E are important to reduce the oxygen free radicals produced during inflammatory processes. In those people with chronic allergic conditions, vitamin C and vitamin E are found to be deficient in the fluid lining of the lungs. In addition, vitamin C and vitamin E deficiency is also associated with higher plasma histamine and IgE antibody levels. Supplementing antioxidants have been shown to improve pulmonary function tests and decrease skin reactions in these allergic individuals.

### **Vitamin B6, B12, Folic Acid**

Research indicates that those with chronic airway inflammation are deficient in vitamin B6, a vital cofactor in hundreds of metabolic reactions. Furthermore the pharmaceutical theophylline also lowers plasma vitamin B6 levels, which exacerbates the neurological side-effects of this medication. Folic Acid and vitamin B12 promote cell growth and differentiation of immune cells and may be deficient in those with chronic allergic conditions. Vitamin B12 can be especially useful for those with sulfite sensitivities.

### REFERENCES:

1. Miller AL. The etiologies, pathophysiology, and alternative/complementary treatment of Asthma. *Altern Med Rev.* 2001 Feb;6(1):20-47. Review.
2. Johnston CS, Solomon RE, Corte C. Vitamin C depletion is associated with alterations in blood histamine and plasma free carnitine in adults. *J Am Coll Nutr* 1996;15:586-591.
3. Fogarty A, Lewis S, Weiss S, Britton J. Dietary vitamin E, IgE concentrations, and atopy. *Lancet* 2000;356:1573-4.
4. Beck MA, Nelson HK, Shi Q, et al. Selenium deficiency increases the pathology of an influenza virus infection. *FASEB J* 2001;15:1481-3.



# ULTRA ASTHMATICA™

## Vitamin A and Carotenoids

Retinol and carotenoids, members of the vitamin A family, are required for cell proliferation and differentiation, immune function, and the integrity of mucosal and epithelial surfaces. Retinol is also important for pulmonary function and adequate levels are associated with higher forced expiratory volume (FEV) and forced vital capacity (FVC), indications of enhanced pulmonary function. Intake of carotenoids has been shown to prevent wheezing, shortness of breath, and chest constriction associated with exercise.

## Magnesium

An adequate level of magnesium is essential for bronchiole smooth muscle relaxation and dilation. Beta-2 agonist inhalers, the common pharmaceutical treatment for those with allergen induced wheezing, increase magnesium excretion in the urine and cause a magnesium deficiency. According to a recent double blind randomized placebo controlled study, long term oral magnesium supplementation reduces bronchiole reactivity in those with allergen induced wheezing and shortness of breath.

## Quercetin

Quercetin modulates the allergic cascade by stabilizing mast cells, preventing histamine release, and decreasing inflammatory prostaglandin and leukotriene production. This important dietary bioflavonoid reduces the body's sensitivity to allergic triggers.

## Zingiber officinalis and Boswellia serrata

Both of these herbs have been shown to inhibit the 5-lipoxygenase enzyme (5-LOX). This enzyme is responsible for the metabolism of arachadonic acid and the production of leukotrienes (series 4). Series 4 leukotrienes are very potent promoters of smooth muscle bronchiole constriction and mucous production. Frequent intake of Boswellia and Zingiber has been shown to improve symptoms in those with reactive airways.

## Tylophora asthmatica, Picrorhiza kurroa, Piper longa, Coleus forskolii

These valuable ayurvedic herbs have traditionally been used for inflammatory conditions of the lungs. As powerful anti-inflammatory and expectorant herbs, they have been shown to improve symptoms of wheezing, coughing, and shortness of breath when used therapeutically. Tylophora may have antihistamine and antispasmodic activity via its alkaloid tylophorine. Coleus forskolii also relaxes smooth muscle, dilates the bronchiole and improves the depth and ease of each breath. Coleus contains a diterpene molecule known as forskolin which is a powerful activator of adenylate cyclase in leading to an elevation of cAMP. In bronchial tissues, this increase of cAMP causes bronchodilation.

## Bromelain

Bromelain is a proteolytic enzyme derived from the stem and fruit of pineapple. As a proteolytic enzyme bromelain actually digests the histamine molecule and breaks down and thins mucous secretions. These actions are especially important for the areas of the body affected by allergic reactions including: the sinuses, middle and inner ear, Eustachian tubes, and airways of the lungs.

## REFERENCES:

5. Bartel PR, Ubbink JB, Delport R, et al. Vitamin B6 supplementation and theophylline-related effects in humans. *Am J Clin Nutr* 1994;60:93-9.
6. Neuman I, Nahum H, Ben-Amotz A. Prevention of exercise-induced asthma by a natural isomer mixture of beta-carotene. *Ann Allergy Asthma Immunol* 1999;82:549-53.
7. Erlund I, Kosonen T, Alfthan G, et al. Pharmacokinetics of quercetin from quercetin aglycone and rutin in healthy volunteers. *Eur J Clin Pharmacol* 2000;56:545-53.
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10. Marone G et al. Inhibition of IgE mediated release of histamine and peptide leukotriene from human basophils and mast cells by forskolin. *Biochem Pharmacol.* 36(1):13-20. 1987.

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.