

# Vita Hist

## CLINICAL APPLICATIONS

- Supports Immune Balance in Hypersensitive Individuals
- Supports Sinus and Respiratory Health
- Promotes Normal Viscosity of Mucus
- Clears Nasal Passages



This product is a targeted blend of flavonoids, antioxidants, proteolytic enzymes and botanicals designed to provide comprehensive support for seasonal challenges caused by common environmental allergens. This product includes quercetin, a powerful flavonoid, to support healthy histamine levels. Bromelain enhances the absorption of quercetin and supports mucosal tissue health. Stinging nettles leaf balance hyper-immune response and N-acetyl cysteine clear the airways by promoting normal viscosity of mucus. This powerful combination actively promotes healthy nasal and sinus passages for individuals with elevated histamine and respiratory irritation.

### Quercetin<sup>†</sup>

Quercetin is a biologically active flavonoid antioxidant that is widely distributed in plants including oak trees, onions and tea. Quercetin has strong antioxidant activity and has been shown to support immune health by mediating the release of inflammatory compounds including leukotrienes and prostaglandins.<sup>[1,2]</sup> Quercetin is known for its ability to stabilize mast cells, diminishing the release of histamine, the compound known to cause hypersensitivity reactions during seasonal changes.<sup>[3]</sup>

### Stinging Nettles Leaf<sup>†</sup>

*Urtica dioica*, commonly known as stinging nettles, is a plant that has been shown to balance immune response, specifically in the airways and nasal passages.<sup>[4]</sup> Studies have shown that the extract of stinging nettles leaf balances a variety of inflammatory activities that affect respiratory health. Stinging nettles leaf controls mast-cell degranulation, prostaglandin formation, and histamine action all contributing to a balanced inflammatory response.<sup>[5]</sup>

### Bromelain<sup>†</sup>

Bromelain is a plant enzyme naturally found on the stem and fruit of the pineapple plant. Bromelain is a proteolytic enzyme that aids in the breakdown of large protein complexes, including antigenic compounds, and has been shown to enhance the absorption of quercetin.<sup>[6]</sup> Bromelain has been shown to reduce circulating allergenic protein complexes associated with hyper-immune sensitivity and seasonal discomfort.<sup>[7]</sup>

### N-Acetyl Cysteine<sup>†</sup>

N-acetyl cysteine (NAC) is an amino acid precursor to one of the most important antioxidants in the body, glutathione.<sup>[8]</sup> Both glutathione and NAC help reduce the viscosity of the mucus allowing for clearing of the airways and improved respiratory health.<sup>[9,10]</sup>

### Vitamin C<sup>†</sup>

Vitamin C cannot be synthesized by humans and is therefore an essential nutrient that must be consumed in the diet. Among its numerous health-promoting properties, vitamin C is an essential vitamin that supports the immune system and is also a potent antioxidant. When the body is under a significant amount of stress, both emotional and environmental, vitamin C is excreted rapidly. Vitamin C has many immune boosting properties, but is distinctively beneficial for individuals with seasonal discomfort because of its ability to deactivate histamine.<sup>[11,12]</sup>

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.

## Directions

Loading Dose: 2 capsules three times per day for 7-10 days or as recommended by your health care professional.

Maintenance: 2 or more capsules per day or as recommended by your health care professional.

## Does Not Contain

Wheat, gluten, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners or preservatives.

## Cautions

If you are pregnant or nursing, consult with your health care practitioner before taking this product.

Supplement Facts <sup>v1</sup>		
Serving Size 2 Capsules		
Servings Per Container 20 & 60		
	Amount Per	% Daily
2 capsules contain	Serving	Value
Vitamin C (as Ascorbic Acid USP)	300 mg	500%
Quercetin Dihydrate	400 mg	*
Stinging Nettles Leaf	400 mg	*
Bromelain (2,400 GDU/g) (from Pineapple)	100 mg	*
N-Acetyl-L-Cysteine USP	50 mg	*
* Daily Value not established		

## References

1. Della Loggia R, Ragazzi E, Tubaro A, et al. Anti-inflammatory activity of benzopyrones that are inhibitors of cyco- and lipo-oxygenase. *Pharmacol Res Commun* 1988;20:91-94.
2. Kim HP, Mani I, Iversen L, Ziboh VA. Effects of naturally-occurring flavonoids and bioflavonoids on epidermal cyclooxygenase and lipoxygenase from guinea pigs. *Prostaglandins Leukot Essent Fatty Acids* 1998; 58:17-24.

3. Otsuka H, Inaba M, Fujikura T, Kunitomo M. Histochemical and functional characteristics of metachromatic cells in the nasal epithelium in allergic rhinitis: studies of nasal scrapings and their dispersed cells. *J Allergy Clin Immunol* 1995 ;96(4):528-36.
4. Mittman P. Randomized, double-blind study of freeze-dried *Urtica dioica* in the treatment of allergic rhinitis. *Planta Med* 1990; 56:44-47.
5. Obertreis, B. et al. Anti-inflammatory effect of *Urtica dioica* folia extract in comparison to caffeic malic acid. *Arzneimittelforschung* 1996; 46(1): 52-56.
6. Shoskes DA, Zeitlin SI, Shahed A, Rajfer J. Quercetin in men with category III chronic prostatitis: a preliminary prospective, double-blind, placebo-controlled trial. *Urology* 1999; 54(6): 960-3.
7. Cichoke AJ. The Complete Book of Enzyme Therapy. (1999). Garden City Park, NY: Avery Publishing Group.
8. Yim CY, et al. Use of N-acetyl cysteine to increase intracellular glutathione during the induction of antitumor responses by IL-2. *J Immunol* 1994; 152:5796-5805.
9. Ziment, I. Acetyl cysteine: a drug that is much more than a mucokinetic. *Biomed Pharmacother* 1988; 42(8):513-519.
10. Millar, A.B. et.al. Effect of oral N-Acetyl Cysteine on mucus clearing. *Br J Dis Chest* 1985; 79: 262-266.
11. Bland JS, Costarella L, Levin B, et al. Clinical Nutrition: A Functional Approach. Second Edition. (2004). Gig Harbor, WA: Institute of Functional Medicine.
12. Johnston CS. The antihistamine action of ascorbic acid. *Subcell Biochem* 1996;25:189-213.