

Sinatrol



Product Rationale:

For those who suffer from sinusitis and other sinus related issues.

Ingredient Information:

Andrographis:

- Pharmacological studies of Andrographis suggest anti-inflammatory, antipyretic, antiviral, and immune stimulating properties¹.
- A meta-analysis of seven double-blind studies was conducted on the efficacy of Andrographis. The data suggests that *A. paniculata* is superior to placebo in alleviating the symptoms of upper respiratory tract infections¹.
- In a randomized, placebo-controlled double-blind study of 208 adults with URTI it was found that *A. paniculata* (60mg andrographolide/day) improved nasal secretion and soreness of throat compared with placebo¹.

N-Acetyl L-Cysteine:

- NAC is used to treat acetaminophen overdose and is used in upper respiratory tract infections and bronchitis⁹.
- NAC breaks the disulfide bonds of mucus glycoprotein. This results in a decrease of viscoelasticity of nasal mucus².
- Reconstituted human nasal mucus (RHNM) from 74 patients with chronic sinusitis was used to determine the effects of 4 mucokinetic agents, including acetylcysteine. 5% RHNM dissolved in phosphate-buffered solution was the optimal concentration of RHNM as it was similar to freshly collected nasal mucus. Acetylcysteine decreased both dynamic viscosity and elastic modulus, making it an effective mucolytic¹⁰.

Bromelain:

- The term bromelain refers to all the enzymes derived from pineapple fruit, leaves, and stems. Bromelain has historically been used as a digestive aid, cleansing agent, wound healing, and as an anti-inflammatory⁸.
- Bromelain was evaluated in children with acute sinusitis. Patients in the bromelain group showed a statistically faster recovery from symptoms associated with sinusitis compared to the other treatment groups³.

Berberine Sulfate:

- Berberine sulfate is a salt form similar to the berberine alkaloids found in Goldenseal, a plant known to have natural antibiotic properties.
- Berberine can metabolically inhibit certain organisms, inhibit bacterial enterotoxin formation, inhibit intestinal fluid accumulation and ion secretion, and reduce inflammation⁴.

Thyme:

- Thyme has traditionally been used to help with inflamed sinuses, whooping cough, and help loosen phlegm¹¹.
- Thymol is the active ingredient in thyme, and is responsible for the antiseptic/antibacterial properties¹¹.
- The German Commission E has approved Thyme for the treatment of bronchitis, whooping cough, and upper respiratory inflammation¹².



Product #516060 - 60 Capsules

Supplement Facts^{V1}

Serving Size: 3 Capsules
Servings Per Container: 20

3 capsules contain	Amount Per Serving	% Daily Value
N-Acetyl-L-Cysteine USP	750 mg	*
Andrographis paniculata Leaf & Stem Extract (Standardized to contain 20% Andrographolides)	300 mg	*
Thyme Herb Extract 5:1	300 mg	*
Turmeric Root Extract (Standardized to contain 95% Curcumin)	300 mg	*
Eleuthero (Siberian Ginseng) Root Extract (Standardized to contain 0.8% Eleutherosides)	250 mg	*
Bromelain (2,400 GDU/g) (from Pineapple)	200 mg	*
Berberine Sulfate Hydrate	100 mg	*
Licorice Root Extract (Standardized to contain 12% Glycyrrhizin Complex)	100 mg	*

* % Daily Value not established

Other Ingredients: Natural Vegetable Capsules. This product may contain one or more of the following: Calcium Silicate, Magnesium Stearate, Microcrystalline Cellulose and Silicon Dioxide.

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. The information provided here is intended to help health care professionals make informed decisions about recommending this product safely and effectively.

Turmeric Root:

- Curcumin has anti-inflammatory, antioxidant, and chemopreventive activities⁵.
- Preliminary data suggests that curcumin inhibits cell proliferation and cytokine production by inhibiting target genes involved with immunity⁵.

Eleuthero Root:

- Siberian Ginseng has traditionally been used to help with fatigue, increase concentration, and prevent infections⁶.
- 10 mg of Siberian Ginseng along with 85 mg standardized extract of *Andrographis paniculata*, (Kan Jang) were found to be effective against acute upper respiratory tract infections. Significantly improving symptoms such as throat symptoms, headache, nasal symptoms, and general malaise⁷.

Licorice Root:

- Licorice root has historically been used to soothe respiratory inflammation¹³.
- Glycyrrhizin has shown some antimicrobial activity against different bacteria and viruses, including Epstein-Barr and HIV. It appears to boost the immune system's T-cell count¹³.
- Glycyrrhizin exerts its anti-inflammatory action by inhibiting the production of reactive oxygen species by neutrophils¹⁴.

Dose

As a dietary supplement, three capsules per day.

Contraindications, Adverse or Other reactions:

Sinatrol should be used with caution in those individuals having high blood pressure and/or who are on blood thinning medication.

References:

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8. Bromelain. <http://www.pdrhealth.com>
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10. Rhee Cs, Majima Y, et al. Effects of mucokinetic drugs on rheological properties of reconstituted human nasal mucus. *Arch Otolaryngol Head Neck Surg.* 1999; 125(1):101-105.
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14. Akamatsu H, Komura J, Asada Y, Niwa Y. Mechanism of anti-inflammatory action of glycyrrhizin: effect on neutrophil functions including reactive oxygen species generation. *Planta Med.* 1991; 57(2):119-121.