HISTASSIST

NORTH CENTURY PHARMACY

Clinical Applications

- Provides Respiratory Support*
- Promotes Nasal Comfort*
- Provides Antioxidant Support*

HistAssist *is scientifically formulated to support the respiratory system, including nasal passages. It features Quercefit®, a highly absorbable Quercetin Phytosome™, combined with nettle extract and antioxidant compounds to target immune-system–related pathways connected to respiratory symptoms.**

All North Century Pharmacy Formulas Meet or Exceed cGMP Quality Standards

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Discussion

Respiratory system challenges may be seasonal in some individuals or year-round in others. In many cases, individuals experience multiple symptoms. Such constellations may have various causes, including antigen or microorganism exposure, histamine activity, or immune reactivity. Regardless, the underlying immune responses have some commonalities, such as the mobilization of immune cells and inflammatory cytokines and the subsequent increase in oxidative stress, contributing to symptomatology. **HistAssist** provides a complex of active ingredients that may help the body balance immune-related responses, oxidative stress levels, and the associated respiratory symptoms.*

Quercetin Phytosome® (Quercefit®)

Quercetin belongs to the flavonoid class of polyphenols and is found naturally in various medicinal plants as well as foods and drinks, including onions, apples, berries, brassica vegetables, nuts, wine, and black tea.[1,2] The body of scientific evidence demonstrates that ingesting quercetin confers a wide range of benefits to human health, which are primarily mediated through quercetin's antioxidant activities and immunomodulatory effects.[2-5] For example, research results have shown quercetin has inhibitory effects on histamine release, eosinophil recruitment, and proinflammatory cytokine activity.[4,5] Quercetin, like many other flavonoids, has relatively poor absorption in the gastrointestinal tract, causing limited bioavailability.*

Quercetin Phytosome is considered a superior form of quercetin because of its increased bioavailability compared with standard quercetin.[6] Phytosome technology complexes botanicals like quercetin with phospholipids, improving solubility and enhancing absorption. This improved bioavailability allows for better uptake by the body, which is important for efficacy. Riva et al[6] conducted a single-dose, randomized, 6-sequence/3-period crossover clinical trial with a balanced carryover effect to evaluate the absorption of Quercetin Phytosome over unformulated quercetin in healthy volunteers under fasting conditions. One dose of quercetin (500 mg) and 2 different doses of Quercetin Phytosome (250 mg and 500 mg) were orally administered to subjects (N = 12), and pharmacokinetic samples were collected at 12 time points. The Cmax for 500 mg of Quercetin Phytosome was approximately 20-fold higher, and the AUC was approximately 18-fold larger than that of quercetin. The 250-mg dose of Quercetin Phytosome showed a pharmacokinetic profile similar to 500 mg but with Cmax and AUC values half the 500-mg dose, indicating a dose-dependent relationship.[6] Other human studies show the respiratory-immune benefits of Quercetin Phytosome as follows.*

A randomized, placebo-controlled, double-blind, parallel-group study (N = 66) explored the impact of Quercetin Phytosome in Japanese adults with eye and nose discomfort. Researchers conducted evaluations using Japanese Rhinoconjunctivitis Quality of Life Questionnaire scores and other tests. Over the course of 4 weeks, those consuming 200 mg/d of Quercetin Phytosome experienced significant subjective improvements in sleep and severity of symptoms, such as sneezing, ocular itching, and runny nose, compared with the placebo group.*[7]

Human studies also demonstrate the benefits of Quercetin Phytosome in individuals with early-stage respiratory illness. In addition to standard care, subjects taking doses of 500 to 1500 mg/d of Quercetin Phytosome demonstrated better clearance, improved resolution of acute symptoms, reduced illness progression, and reduced serum inflammatory biomarker levels compared with those receiving standard care alone.*[8-10]

N-Acetyl-L-Cysteine (NAC)

Oxidative stress and the interrelated production of inflammatory cytokines are thought to play a significant role in propagating respiratory symptoms in immune-reactive pathways.[11] NAC has direct antioxidant activities and is a precursor to glutathione biosynthesis.[12,13] Low glutathione levels are associated with oxidative stress and implicated in immune dysregulation—particularly T-cell–mediated functions. Replenishing antioxidants may be critical in normalizing immune function.[14] NAC is also a mucolytic agent that decreases mucus viscosity and facilitates its clearance by hydrolyzing the disulfide bonds of mucus proteins.[12] In an animal model of environmental hypersensitivity, NAC reduced lung oxidative stress, improved lung glutathione status, reduced inflammatory transcription factor (eg, NF-κB, TNF-α) activity, and decreased airway hyperresponsiveness.*[11]

Nettle Extract (*Urtica dioica* and/or *Urtica urens*)

Nettles have been used as a natural remedy for 2,000 years, and modern scientists have been working to validate its historical use and elucidate mechanisms of action. Nettle leaves provide many active components, such as flavonoids, phenolic compounds, organic acids, and vitamins, as well as volatile compounds like fatty acids and polysaccharides.[15] In vitro testing demonstrated that an extract of nettle leaves inhibited the following: histamine-1 receptors; tryptase, which influences mast cell degranulation; prostaglandin D2 production; and COX1 and COX2 activity.[16] In a double-blind, randomized study, subjects (n = 69) were given 300-mg capsules of freeze-dried nettle or placebo and instructed to take 2 capsules at the onset of seasonal allergy symptoms and then ad libitum. The daily dose ranged from 1 to 7, with a mean of 2.8 doses (300 mg per dose). Overall, 58% of subjects rated nettle moderately effective or better compared with only 37% for the placebo.[17] More scientific research and well-designed human studies are

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Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 30

	Amount Per Serving	%DV
Vitamin C (ascorbic acid)	200 mg	222%
Quercetin Phospholipid[S1]	250 mg	**
Nettle Extract (*Urtica dioica* and/or *Urtica urens*)(leaves)	200 mg	**
N-Acetyl-L-Cysteine	100 mg	**

** Daily Value (DV) not established.

Other Ingredients: Capsule (hypromellose and water), ascorbyl palmitate, and silica.

QUERCEFIT® S1. Quercefit® is a registered trademark of Indena S.p.A., Italy.

Directions

Take two capsules daily, or use as directed by your healthcare professional.

Consult your healthcare professional before use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

Formulated To Exclude

Wheat, gluten, yeast, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, sesame, ingredients derived from genetically modified organisms (GMOs), artificial colors, and artificial sweeteners.

References

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needed to validate the mechanisms of action and uses of nettle for respiratory health.*

Vitamin C
Oxidative stress may contribute to negative biological impacts on airways, and low vitamin C levels have been observed in environmentally hypersensitive individuals and those facing other respiratory challenges.[18,19] As an antioxidant, vitamin C is physiologically available in respiratory tracts to help scavenge free radicals and has essential roles in immune system function.[19,20] Saturating plasma levels (ie, 100-200 mg/d) may help optimize cell and tissue levels.[21] Furthermore, coadministration of quercetin and vitamin C imparts complementary immunomodulatory effects, and vitamin C has a role in quercetin recycling.*[22]

HistAssist combines research-based and traditional ingredients with antioxidants to robustly support the respiratory system and its organs, including nasal passages, through complementary mechanisms of action.*

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