

Rationale For *Respitone*TM

The respiratory system, consisting of all airways and the lungs, puts the body in intimate contact with our environment and permits the exchange of life-sustaining gases. Oxygen for burning food fuel passes into the blood and waste carbon dioxide is released back into the air. This exchange of gases also helps regulate vital acid-base balance.

The lungs can also expel toxic volatile compounds that accumulate in the blood. But toxic compounds that are in the atmospheric environment can also pass into blood via the lungs. This two-way passage not only saves our life, but can also jeopardize it since it cannot screen out what is breathed. Respiratory health is most certainly dependent upon a keen awareness of the industrialized air and toxic emissions from buildings and household chemicals. Prevention through restoring clean atmospheric environments is critical to respiratory health.

RESPITONETM

Nutrient Support Formula

W Y S O N G

PURPOSE:

A nutritional supplement designed to support the health of the lungs, respiratory airways, sinuses and mucosal lining.

INGREDIENTS:

Natural Phytonutrient Extracts and Concentrates of Onion, Licorice Root, Coleus forskohlii, and Tylophora indica; Magnesium Taurinate.

- Contains no additives -

DIRECTIONS:

Suggested Dosage: Two capsules three times daily. RespitoneTM is best assimilated if swallowed with meals. For best results, Respitone should be used as part of the Wysong Optimal Health ProgramTM.

For long-term usage discontinue two days out of every week and five successive days every month to decrease the potential for intolerance developing.



Lung tissue is also highly sensitive to allergens and its blind, cave-like structure makes it also susceptible to the growth of infectious agents when immunity is compromised.

But the respiratory system, like all other body systems, is a marvelous mechanism for enhancing, not jeopardizing, health. It is incredibly adaptable and has huge recovery reserves. Only when abuse is excessive or unrelenting will these recovery capabilities fail and disease result. The respiratory system is intimately interconnected with all other portions of the body and thus the health of the whole directly affects the health of the part (the respiratory system). Cardiovascular health, immune health, connective tissue health, mucous membrane health, muscular health, and general aerobic and anaerobic fitness directly impact respiratory health. All, therefore, must be given equal consideration in attempting to achieve respiratory health.

RespitoneTM is designed to specifically target the respiratory system to enhance its healthy function. Research has demonstrated that nutrients can enhance the function of respiratory tissue by moderating bronchospasm from allergic reactions, increasing mucus flow to expel toxins and infective agents, reinforcing the integrity of blood vessel and alveoli tissue where gases are exchanged, enhancing immune defenses at the interface between atmospheric air and blood, and moderating the immune reaction, allergies and excessive inflammatory conditions.

Respitone is the result of several years of research seeking non-toxic natural nutritional supplements. Ingredients have been selected based upon the weight of scientific evidence and traditional experience with their use. Supplementation with natural nutrients and "nutraceuticals" is an emerging science and precise mechanisms of action have not been determined in many cases.

Biochemistry

The major active component of Respitone licorice is a steroid-like molecule known as glycyrrhizin that is 50 times sweeter than sugar. This substance along with another component, glycyrrhetic acid, binds to gluco-corticoid receptors and acts to reduce inflammation. In addition, licorice has many other components

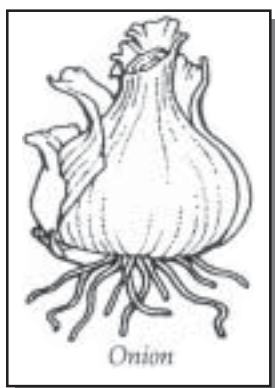


Licorice

including flavonoids that also have significant pharmacological effects. People with heart problems and/or hypertension should avoid using large quantities of licorice due

to its ability to raise blood pressure, increase sodium levels in the blood, and cause water retention.

Respitone onion owes some of its effects to the wide variety of organic sulfur compounds it contains. It has been used throughout history as an antiasthmatic agent. Onion inhibits the production of compounds that cause the bronchial smooth muscle to spasm, thus causing the bronchial smooth muscle to relax.



Onion

The plant *Coleus forskohlii* is the only *Coleus* species to contain the chemical called forskolin. Forskolin, as found in Respitone, activates

the enzyme adenylate cyclase, which increases the level of Cyclic AMP (c-AMP). C-AMP is probably the most important cell-regulating compound

because it activates many other cellular enzymes. Forskolin has other antiasthmatic effects such as inhibiting the release of histamine and inhibiting the synthesis of allergic compounds.

The major alkaloid contained within the leaves of *Tylophora indica* is called tylophorine. The antiasthmatic activity of the plant is attributed to this substance. *Tylophora*, as found in Respitone, is thought to exert its effects on asthma by way of cell-mediated immunity.

Respitone contains the mineral magnesium which is an enzyme activator, and helps turn on most of the enzymes that use vitamins B₁, B₂, and B₆ as coenzymes. Magnesium also acts opposite to calcium to relax muscle tissue. In the lungs it acts as a bronchodilator, and may act to protect against the development of asthma and chronic respiratory problems.

Clinical Evidence

In the laboratory, glycyrrhizin, a component of Respitone, has been shown to inhibit experimentally induced allergic conditions. Recent work has demonstrated that the beta-glycyrrhetic acid portion of licorice has anti-inflammatory properties as well. The way that beta-glycyrrhetic acid decreases inflammation is by inhibiting the conversion of hydrocortisone to cortisone in the lung tissue. Hydrocortisone is an anti-inflammatory agent of lung tissue. Researchers hypothesize that beta-glycyrrhetic acid interferes with the enzyme that catalyzes this reaction.

The beneficial respiratory effects of Respitone onion have been demonstrated in experimental studies. One study found that onion increased the tidal volume of rats, but lowered the respiratory resistance and rate. It was concluded that onion acted not only on the bronchial smooth muscle itself, but on

the breathing reflex pathways also. Research has also shown that onions contain prostaglandins. Prostaglandins are naturally occurring hormone-like substances that help modulate smooth muscle contraction. It is interesting to note that a 1994 study done in India found that onion in the diet was a "consistently significant protective factor" in the development of lung cancer.

Respitone forskolin has been shown to have a tremendous antispasmodic effect on smooth muscle. In a double-blind and crossover study of 12 healthy nonsmokers, forskolin was found to have a bronchodilating effect equal to that of Fenoterol™ (a commercial bronchodilator). Forskolin was also effective against bronchospasm induced by acetylcholine. Additional laboratory work has demonstrated that forskolin is approximately 100 times more potent than aminophylline (a drug used to dilate the airways), and that forskolin inhibited bronchospasms normally induced by histamine. Another study showed that forskolin relaxes airway smooth muscle in guinea pig trachea. The mechanism of action of



Figure 1.

forskolin has been studied down to the cellular level as well. Research has shown that forskolin can inhibit the release of mediators of immediate hypersensitivity reactions (such as the immunoglobulin IgE) via the activation of certain enzymes in human cells.

Respitone tylophora has been studied extensively and has shown significant anti-spasmodic activity in animal tissue isolates, and

anti-anaphylactic activity in guinea pigs with albumin induced anaphylaxis (an acute and life threatening reaction to a foreign protein, such as the effect caused by bee venom in some people). Additional work has shown that plant extracts produce muscle relaxation and antagonism of smooth muscle stimulants. Another study also showed that pre-treatment with the extracts prevented bronchospasms in rats. The extracts also have anti-inflammatory effects. The extract tylophorine was tested against phenylbutazone (an anti-inflammatory drug), and showed significant inhibition of edema in mice. This effect increased over time, and then finally waned. Finally, dried leaf

powder alone from the plant caused significant improvement in lung function of human asthma patients.

In a double-blind study, magnesium, a Respitone ingredient, was found to significantly improve pulmonary function in asthmatics. Blood analysis of the asthmatic patients showed that the degree of improvement in pulmonary function was positively correlated with serum magnesium levels. Another study demonstrated that an intravenous solution containing magnesium was effective in relieving the symptoms of mild and severe asthma attacks.

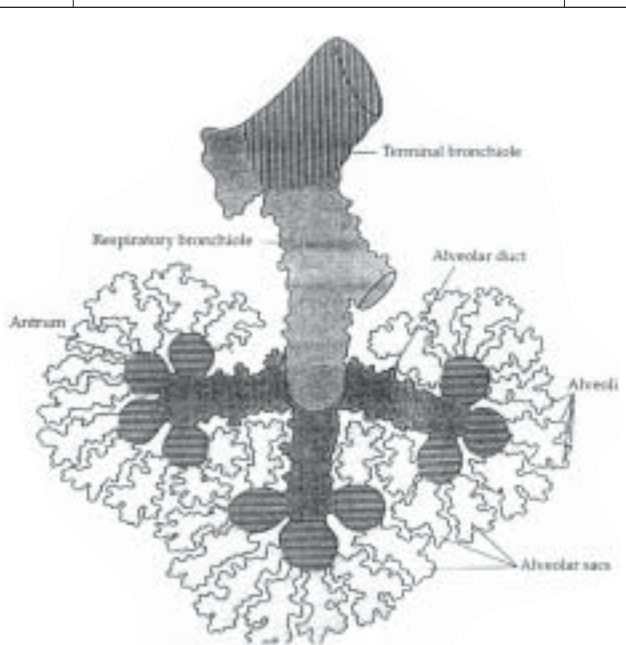


Figure 2. A portion of lung tissue.

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.

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