

Product Name:

ModuCold™

Galenic Form:

Capsule

Format:

60 capsules

Ingredients:

Each capsule contains:

Aged Garlic Extract™ powder (<i>Allium sativum</i> *) bulb (3:1) (660 mg dried equivalent).....	220 mg
Moducare®.....	113 mg
providing:	
Beta-sitosterol (from pine tall oil pitch)...	10 mg
Beta-sitosterolin.....	0.1 mg
Vitamin C (calcium ascorbate)	59.2 mg
Mushroom Blend.....	75 mg
shiitake (<i>Lentinula edodes</i>) body, mycelia...	27.0mg
maitake (<i>Grifola frondosa</i>) body.....	13.5 mg
poria (<i>Poria cocos</i>) body.....	13.5 mg
reishi (<i>Ganoderma lucidum</i>) mycelia.....	13.5 mg
agaricus (<i>Agaricus blazei</i>) body.....	7.5 mg
Astragalus (<i>Astragalus membranaceus</i>) root 5:1 extract (250 mg dried equivalent).....	50 mg
Echinacea (<i>Echinacea purpurea</i>) root extract 4:1 (336 mg dried equivalent).....	84 mg
Zinc (hydrolyzed vegetable protein chelate).....	0.7 mg
* from certified organic garlic	

Non-medicinal ingredients:

Cellulose, magnesium stearate, gelatin.

This product does not contain dairy, egg, gluten, shellfish, soy, sulphites, or artificial flavours, colours, or preservatives.

Formula Rationale:

RxBalance™ ModuCold™ is a highly effective formula that shortens the duration of colds and supports and balances the immune system. This synergistic combination of Aged Garlic Extract™, Moducare®, cold-fighting botanicals, zinc, and vitamin C helps to relieve the symptoms and shorten the duration of upper respiratory tract infections such as the common cold.

Aged Garlic Extract™ (AGE) has antioxidant and immune-supporting properties that are proven to be greater than other garlic supplements. The beneficial effects of garlic are due mostly to its high content of sulphur-containing compounds and antioxidants. AGE is made by extracting and aging organic fresh garlic at room temperature for 20 months. This unique process eliminates the odour of raw garlic and makes it gentle on the stomach, and at the same time increases the levels of beneficial antioxidants and converts unstable and harsh compounds, such as allicin, to stable, health-promoting substances. Two of these compounds, S-allyl-cysteine (SAC), which is highly bioavailable, and S-allyl-mercaptocysteine (SAMC), are powerful antioxidants that are mainly responsible for AGE's health benefits.

Astragalus root is a herb that has demonstrated immune-modulating activity by helping to increase the production of mononuclear white blood cells.

Five-Mushroom Complex:

Maitake mushroom has been shown to enhance the immune system. Maitake activates natural killer (NK) cells, cytotoxic T cells, interleukin-1, and superoxide anions.

Poria mushroom has been shown to act as a mild anti-inflammatory and there is evidence that it may have antitumour effects.

Reishi mushroom has a long history of use in folk medicine, and researchers are beginning to identify medicinal substances in this mushroom that have antitumour and immune-modulating effects. Protease inhibitors and other anti-HIV substances have been found in reishi mushrooms.

Shiitake mushroom contains important compounds that have immune-modulating properties that activate macrophages, T lymphocytes, and the immune-effector cells that modulate the release of cytokines.

Agaricus mushroom has been shown in human clinical trials to raise the activity of NK cells, increase the number of circulating white blood cells, and increase the production of tumour necrosis factor-alpha (TNF-α). The primary role of TNF-α is the regulation of immune cells.

Zinc is a mineral that helps boost the immune system and prevent colds and sore throats.

Vitamin C, known for its use for treating the common cold, is a powerful antioxidant that is essential for proper immune function.

Echinacea is a herb that boosts the immune system. According to the World Health Organization (WHO)'s monographs on herbs, Echinacea's effectiveness in respiratory infections has been confirmed by over 350 studies undertaken in a period of over 50 years.

Moducare® is a proprietary mix of plant sterols and sterolins derived from a natural pine source in a clinically proven ratio of 100:1. Moducare® is the only clinically tested plant sterol/sterolin product proven to be effective in immune modulation. Research has shown that Moducare® specifically targets CD4 cells of the TH1 phenotype. There is a partial explanation for this: Genes coding for IL-12 (the cytokine that directly targets TH1 cells) are up-regulated in preference to genes that code for other cytokines.

Many studies show that Aged Garlic Extract™ (AGE) has a significant benefit for the immune system. The synergistic combination of AGE, vitamin C, zinc, carefully chosen botanicals, and a powerful five-mushroom complex provides antioxidants and immune-supporting nutrients for powerful protection against colds. The inclusion of Moducare® provides additional safe and effective support for the immune system. Moducare® has been shown, *in vitro* as well as *in vivo*, to have the following immunological activities:

- Enhances the cellular division of peripheral blood lymphocytes when these are activated by stimuli.
- Enhances the killing ability/cytotoxicity of specialized cells responsible for immune surveillance, namely the natural killer (NK) cells.

- Enhances the ability of T lymphocytes to release the factors that ultimately regulate cellular functions in the body. These T cells (TH1 helper cells) are antagonists to the activity of other helper cells (TH2) that promote the functions of B lymphocytes.
- The mixture of sterols and sterolins has anti-inflammatory properties by switching off the release of proinflammatory factors such as interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF- α) from activated monocytes.
- Increases the secretion of IL-12, the cytokine released from antigen-presenting cells that promotes the differentiation of precursor T helper cells into the more polarized TH1 cells.
- The mixture has adreno-cortical effects by decreasing the cortisol/DHEA ratio, suggesting that it enhances the synthesis of DHEA, which ultimately decreases the release of cortisol.

Primary indication:

Helps to relieve the symptoms and shorten the duration of upper respiratory tract infections such as the common cold. Helps to maintain immune function and supports a healthy immune system balance.

Recommended Dose:

Adults: 2 capsules twice daily with food. Take at the first sign of infection. Consult a health care practitioner for use beyond eight weeks.

Complements:

Kyolic® 103 for extra immune support; Moducare®; Chew-C.

Caution:

Do not use if you are allergic to plants of the Asteraceae/Compositae/Daisy family. Consult a health practitioner prior to use if you are pregnant or breastfeeding, have a progressive systemic disease such as tuberculosis, leukosis, collagenosis or multiple sclerosis, are taking immunosuppressants, have an auto-immune disorder, have diabetes, if you are taking blood thinners or protease inhibitors or if symptoms persist or worsen. Hypersensitivity (e.g. allergy) has been known to occur; in which case, discontinue use.

Dr. Crisafi's comments:

The frequency and severity of the common cold and the flu have increased significantly in the last few decades. Medically, there are no preventative or therapeutic tools to treat the cold, with the exception of medication that reduces some of the symptoms of the cold such as fever. As far as the flu is concerned, the common medical approach is to "inform" the immune system and prepare it to react more quickly through the use of vaccines. Unfortunately, the most commonly used tool to prevent the flu is showing less and less effectiveness. Indeed, a study published in the prestigious *Lancet* medical journal highlighted the limits of flu vaccines, casting a shadow on this common medical practice.

Vaccines have some effects, granted. Their major role consists in "informing" the immune system in order for the former to react more quickly should it come into contact with a microorganism. However, their effectiveness is reduced, indeed nullified, if the host's immune system is not strong enough to respond to the viral aggressor. Indeed, giving someone with a compromised immune system a vaccine may help the immune system to quickly recognize an invader; however, a weakened immune system will not have the strength to fight off a serious aggressor, no matter how soon it knows it is under attack, and the outcome will not necessarily be positive.

ModuCold™ was formulated in order to strengthen the host's immune system to ensure an optimally strong reaction of the immune defences, not just rapid recognition. The different ingredients have shown a capacity to combat the cold and the flu by increasing immunity.

The complementary nutraceutical ingredients act synergistically on several different parameters of the immune system, thereby ensuring a very effective and broad spectrum immune support. The nutrients (vitamin C and zinc) supply the co-factors required for proper immune response. Finally, it should be noted that this formula has shown effectiveness in increasing immunity not only against the cold and flu but also against any microorganism that would require a competent immune response.

Selected References

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