What Really Works for Colds? A Look at the Research

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It's no small wonder that Americans spend millions each year to prevent and treat colds. But are we getting our money's worth? That depends. To get a better sense, we can take a look at some of the research highlighting botanical and herbal remedies that can support immunity and help alleviate symptoms, as well as popular OTC medications that mainly address symptoms.

Vitamins: Supplements or Foods?
One of the most common supplements used to boost immunity is vitamin C, yet there is conflicting evidence on whether taking vitamin C supplements can prevent colds or not. One report suggests that it doesn't prevent them, but it may reduce severity of symptoms. However, a comprehensive review by Harvard researchers found that vitamins B, C and E, as well as antioxidant carotenoids, do contribute to enhanced immune function.

Furthermore, there's some interesting research showing that *foods* which are high in vitamin C and other nutrients do boost immunity. One study tested a concentrated fruit and vegetable juice powder and found it reduced DNA damage in lymphocyte cells and increased the number of T-cells. The concentrated powder increased levels of vitamin C and carotenoids in the body.

For cold prevention and treatment, a multinutrient supplement with food-based sources of vitamins A, B, C, D_3, E and minerals, along with a diet emphasizing foods such as brightly colored fruits and vegetables is highly recommended. By combining food-based supplements with phytonutrient-rich produce, we can cover our nutritional bases with optimized sources of vitamins, minerals, enzymes and cofactors that play key roles in helping to optimize immune and overall health.

Zinc: Essential Immune Mineral
With its ability to impact a variety of mechanisms, zinc is one of the most important minerals for immune health. In fact, zinc deficiency can damage immune cells, particularly T and NK cells. Two studies in elderly subjects show the importance of zinc for immune health. Zinc deficiency is common in older adults and may contribute to immune problems, including poor response to vaccinations. In one study, zinc supplements improved collective immune response.

Another study also examined zinc in immunity, again with good results. Compared to the control group, participants who received zinc had significantly fewer infections. The zinc supplements offered antioxidant protection by reducing oxidative stress and inflammation. A recent analysis of 17 studies also found that zinc reduces cold symptoms. Natural sources of zinc include oysters, toasted wheat germ, beef and lamb, spinach and pumpkin seeds. 15-25 mg/day of natural zinc supplementation is also recommended, and can be increased to up to 4-5 times daily during a cold.

Medicinal Mushrooms: Nature's Smart Drugs

Certain medicinal mushrooms have a complex and favorable relationship with the immune system. Mushrooms are rich sources of therapeutic compounds, such as beta-glucans, which work in part to energize immune cells when they are underactive, and control them when they become overactive in cases of allergies or autoimmune disease. Essentially, medicinal mushrooms help train the immune system to better respond to threats. They also support energy production, reduce inflammation, support digestion and circulation, detoxify the body and promote healing.

Research on medicinal mushrooms is quite extensive. One study found that an extract from maitake mushrooms energized macrophages. Another study found that maitake enhances phagocytes and boosts the activity of NK cells.

Beta-glucans have shown a number of benefits in animal studies and there is considerable interest in their immune-boosting abilities. The National Cancer Institute is sponsoring research to determine if beta-glucans can enhance immunity to make cancer treatments more effective.

To obtain optimal benefit from medicinal mushrooms, choose an organically grown formula with multiple mushrooms varieties, such as maitake, reishi and poria. I recommend a formula that contains a blend of six organic mushroom species, grown on a substrate of immune-supportive Chinese herbs. This unique botanical cultivation method is shown to alter the thermodynamics of the mushrooms and allow them to absorb more of the growing medium, providing for powerful immune and additional health benefits.

Echinacea: Traditional Cold Treatment
The herb echinacea has been used for centuries to treat colds and other illnesses. One common practice is to take it at the first signs of a cold to ward off the virus. There is some evidence that echinacea may provide protection against colds. One study examined a combination of echinacea, wild indigo and thuja leaf herbs to determine whether they had any effect on colds. The herbal formula showed superior activity against colds, compared to a placebo.

Chicken Soup: Mom Was Right
There is, of course, the old saying that chicken soup is the best remedy for the common cold. At least one study has shown that chicken soup can provide medicinal benefits in treating colds, including anti-inflammatory effects. Additional herbs and vegetables, such as garlic, ginger and kale can enhance benefits.

OTC Medications: Are They Safe?
As integrative practitioners, we're acutely aware that we need more research on alternative remedies. The same holds true for OTC remedies which are so commonly used. Their safety and efficacy is often unquestioned, but some published data shows they may not always be the best choice.

One study looked at the effectiveness of oral antihistamine/decongestant/analgesic combinations for cold treatment, and found that, while these drugs were *mildly* effective for adults and older children, they did not benefit younger children at all. Furthermore, the authors weren't sure the benefits provided by these combinations outweighed the potential side effects.

We all want to find better ways to help us prevent and treat a cold quickly.
The obvious approach is to take a holistic approach to immunity. But what exactly does that mean? For starters, an emphasis on whole, unprocessed foods, good hydration, gentle exercise and quality sleep helps form the basis of a resilient and flexible immune system. Let's also not forget that healthy stress relief and a positive mental outlook are critical for strong immunity and overall health, and can actually be your greatest allies against infection and chronic illnesses.

Sources

De Sutter AI, van Driel ML, Kumar AA, et al. Oral antihistamine-decongestant-analgesic combinations for the common cold. *Cochrane Database Syst Rev.* 2012 Feb 15;(2):CD004976.

Haase H, Mocchegiani E, Rink L, et al. Correlation between zinc status and immune function in the elderly. *Biogerontology*. 2006 Oct-Dec;7(5-6):421-8.

Hemilä H, Chalker E. Vitamin C for preventing and treating the common cold.Cochrane Database Syst Rev. 2013 Jan 31;(1):CD000980. *Curr Med Res Opin*. 1999;15(3):214-27.

Henneicke-von Zepelin H1, Hentschel C, et al. Efficacy and safety of a fixed combination phytomedicine in the treatment of the common cold (acute viral respiratory tract infection): results of a randomised, double blind, placebo controlled, multicentre study. *Curr Med Res Opin.* 1999;15(3):214-27

Nantz MP, et al. Immunity and antioxidant capacity in humans is enhanced by consumption of a dried, encapsulated fruit and vegetable juice concentrate. *J Nutr.* 2006 Oct;136(10):2606-10.

Prasad AS, et al. Zinc supplementation decreases incidence of infections in the elderly: effect of zinc on generation of cytokines and oxidative stress. *Am J Clin Nutr.* 2007 Mar;85(3):837-44.

Rennard BO, et al. Chicken soup inhibits neutrophil chemotaxis in vitro. *Chest*. 2000 Oct;118(4):1150-7.

Science M, et al. Zinc for the treatment of the common cold: a systematic review and meta-analysis of randomized controlled trials. *CMAJ.* 2012 Jul 10;184(10):E551-61. doi: 10.1503/cmaj.111990.

Webb AL, Villamor E. Update: effects of antioxidant and non-antioxidant vitamin supplementation on immune function. *Nutr Rev*. 2007 May;65(5):181-217.

Wu MJ et al. Immunomodulatory properties of Grifola frondosa in submerged culture. *J Agric Food Chem*. 2006 Apr 19;54(8):2906-14.