

## THE FAMILY PHARMACIST

A QUICK READ FOR YOUR OTC NEED!

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## NATURAL MEDICINES FOR COLDS AND FLU

In January 2020 I discussed conventional over-the-counter medicines for treatment of the common cold. This is a good time to discuss natural medicines and their place in treating the symptoms of colds and flu.

There was a time when modern medicine was critical of "natural" approaches to prevent and treat common maladies, like a cold. But in the last twenty years many reliable clinical studies have been conducted to evaluate claims for alternative and complementary medicine to prevent and treat everyday ailments. While most physicians have become more accepting of alternative medicine, when it comes to viral infections like colds and flu, many health care professionals still tend to steer patients toward other proven strategies, such as vaccination, handwashing, saline nasal sprays, humidifiers, and so on.

The FDA considers natural medicines as "dietary supplements," so it states: "Unlike drugs, supplements are not permitted to be marketed for the purpose of treating, diagnosing, preventing, or curing diseases. That means supplements should not make disease claims, such as 'lowers high cholesterol' or 'treats heart disease.' Claims like these cannot be legitimately made for dietary supplements." So keep this in mind when choosing to use a natural medicine to treat the symptoms of a cold or flu. It's good to have a healthy skepticism of the use of the word "natural" on product labels, since there is no official definition for this designation.

The FDA also says that it "is not authorized to review dietary supplement products for safety and effectiveness before they are marketed. However, if a serious problem associated with a dietary supplement occurs, manufacturers must report it to FDA as an adverse event. FDA can take dietary supplements off the market if they are found to be unsafe or if the claims on the products are false and misleading."

Another thing to consider when using natural medicines is that, unlike studies on patented drugs, it's very difficult to compare the results of one study to another. The reason is that many supplements exist in multiple forms. For example, there are ten species of the *Echinacea* plant. Natural medicines and supplements will use different spe-

cies (Echinacea purpurea, Echinacea angustifolia, etc.), different parts of the plant (stems, flowers, roots), and different amounts of the active ingredient in various concoctions (extracts, tinctures, drops), so that it is hard to apply the benefit of a particular study to the supplement you might be taking.

Even though caution is advised, many supplements are safe for most people who still want to try them. Consider what the scientific studies in recent years say about natural medicines and their ability to work for a cold or flu. The studies I looked at for a few of the most popular supplements below provide evidence-based information.

**Echinacea.** The two most studied species of Echinacea are Echinacea purpurea and Echinacea angustifolia. Preparations prepared from the Echinacea leaves and flowers seem to work better than those from the roots. And Echinacea purpurea seems to be more effective in treating a cold. One large study showed taking Echinacea purpurea extract at the first sign of a cold resulted in 59% fewer cold episodes and 26% fewer days with cold symptoms than those taking a placebo. The doses ranged from 2400 mg to 4000 mg of Echinacea extract daily. There are also some small clinical studies that show Echinacea purpurea extract used as a tea can reduce the symptom severity and shorten the duration of a cold by a couple of days. And studies suggest that Echinacea may be effective in preventing you from catching a cold if you take it when you're healthy. The cut leaves and flowers of the purpurea species make an enjoyable tea that, at the very least, is comforting when you're sick or healthy. If you're allergic to plants in the ragweed family you may have crosssensitivity with Echinacea. In that case, reactions are infrequent but they can be

Elderberry. There are thousands of commercial products that contain some part of the elderberry plant. Most often the fruit extract is used. Elderberry gets good marks for reducing the severity of flu-like symptoms, but doesn't seem to shorten the length of time you are sick. One study that did report a reduction in flu symptom duration by about half used a high dose (22 grams) of elderberry fruit extract daily within 48 hours after symptoms began. Elderberry fruit extract appears to be safe for short

term use, but the problem is that most commercial elderberry products don't contain the effective amount of elderberry used in studies. And high doses of elderberry may present a risk for people with autoimmune disorders, such as rheumatoid arthritis and multiple sclerosis. Stay away from the leaves, stems, and unripe or uncooked fruit, as they contain a chemical that produces cyanide. Consuming large quantities of these plant parts can be poisonous.

Garlic. While garlic may have many culinary and other health benefits, there is very little evidence for the use of garlic to treat a cold or flu. Most herbal products of garlic are available as the liquid extract and contain only small amounts of allicin, the active ingredient believed to be responsible for garlic's health benefits. For example, one garlic study showed a dramatic reduction in the chance of getting a cold and a reduction in the number of sick days by 70%, but it used a high dose allicin extract containing 180 mg daily. Fresh garlic contains only 5 to 9 mg per clove. Not only is the amount of allicin in garlic supplements very small, but it's rare to find the allicin content listed on the label. More studies need to be done.

Ginseng. There are various species of ginseng. Different types of ginseng are used in supplements and are available in various formulations. The two species that seem to be most used as a natural medicine for colds and flu are Asian (also called Korean) ginseng and American ginseng. Ginseng gets "promising" marks for preventing colds and influenza. American ginseng extract has also been shown to reduce the severity and duration of cold symptoms. Doses of 100 mg to 400 mg twice daily for three to six months during the cold and flu season has been shown to be beneficial in studies. Ginseng can interact with over-the-counter medicines and prescription drugs, so have your pharmacist check for an interaction if you decide to use it.

Honey. Honey has been shown in studies to relieve cough due to colds. It doesn't prevent or treat cold symptoms or shorten the duration of a cold. One-half to two teaspoonfuls of honey right

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off the spoon reduces cough in kids two years of age and older and may improve sleep. The research on honey for a cough in adults is not as promising, but it doesn't hurt to try it. There is no evidence that "raw" or "dark" honey or commercial products that contain honey work any better than plain honey. Avoid honey in infants less than one year of age due to the risk of botulism, and stay away from honey made from the rhododendron plant. Some species of rhododendron contain a toxin that affects the heart and blood pressure. Commercial products that add honey to a syrup with other ingredients are a gimmick. To get the benefit of honey for a cough take it straight from a spoon.

Vitamin C. Vitamin C has been robustly promoted to prevent and cure the common cold ever since the early 1970s when the Nobel laureate, Dr Linus Pauling, popularized it for disease prevention and longevity. Many studies have since demonstrated that taking doses of vitamin C over 2000 mg might decrease the duration of cold symptoms by a couple of days. But taking a vitamin C supplement daily does not seem to reduce the risk of catching a cold in the first place. The recommended dietary allowance (RDA) for vitamin C is 90 mg for men and 75 mg for women. To get the possible benefit from vitamin C for a cold, you're taking 10 to 20 times the RDA and risking some side effects. High doses of vitamin C, particularly those over 3000 mg, can cause heartburn, cramps, nausea, and diarrhea. However, even modest doses (over 250 mg daily) in men have caused kidney stones. If you want to try a vitamin C supplement in a moderate dose during a cold, say 1000 to 2000 mg, don't buy the expensive products that add multiple ingredients, like the product Airborne® which contains 750 mg of vitamin C along with numerous other ingredients. There is little evidence that it works to prevent a cold. Just purchase inexpensive vitamin C tablets at your pharmacy.

**Zinc**. Zinc seems to be helpful in treating the symptoms and severity of a cold, but doesn't do much to prevent one. Studies have been done with zinc lozenges and zinc nasal sprays. Stay away from zinc nasal sprays since they can be irritating and can affect your sense of smell. Zinc lozenges get the best marks, but make sure you buy the ones that contain zinc gluconate or zinc acetate. These forms of zinc are more available to the body. Some people find that zinc lozenges taste bitter or are otherwise unpalatable, and this can limit usefulness. Some products list confusing homeopathic names on the label, like Zicam Cold Remedy,® and don't tell you how much zinc is in each lozenge. These products probably don't contain enough zinc to work for a cold. Studies that showed effectiveness with zinc used at least 13 mg of zinc per lozenge. Zinc appears to be safe if you don't take more than six (13 mg each) lozenges a day. Cold EEZE® Cold Remedy and a generic Equate® Zinc Lozenges (sold at Walmart) are products that say "homeopathic" on the box, but do list the amount of zinc as 13.2 mg in each lozenge. Some brands contain as little as 3 mg of elemental zinc which is too low to be effective.

## **Recommendation:**

If you decide to try a natural medicine, remember that interactions can occur with other drugs you might be taking. Check with your doctor or pharmacist for interactions. Some of the remedies mentioned above, like vitamin C and zinc, can be purchased in a pharmacy. But for herbs, it's best to find a trusted herbal store in your locale that has been in business for a long time. One provider available on the web at https://www.herb-pharm.com is an Oregon based herbal farm that has been in business since 1979, providing mostly herbal extracts. If you can, buy organic herbs and herb derivatives (extracts, etc.). But it's very important to make sure you know how much of the herb or ingredient you are getting in each dose. Herb-Pharm is good about disclosing this information for each product. Finally, while some of the products listed here might help with the symptoms of a cold or flu, there's no good evidence that they can prevent or treat COVID-19.

The table below shows which natural supplements may help with a cold or flu

Supplement	Prevents a cold	Makes cold symptoms less severe	Reduces time you have cold symptoms	Prevents flu	Makes flu symptoms less severe	Reduces time you have flu symptoms
Echinacea	Maybe	Helpful	Helpful	Maybe	Maybe	No
Elderberry	No	Maybe	Maybe	No	Maybe	Maybe
Garlic	Maybe	No	Maybe	No	No	No
Ginseng	Helpful	Helpful	Helpful	Helpful	Helpful	Helpful
Honey	No	Helpful (cough)	No	No	Helpful (cough)	No
Vitamin C	No	Maybe	Helpful	No	No	No
Zinc	No	Helpful	Helpful	No	No	No

Helpful	Studies tend to be positive.	
Maybe	Studies exist, but are sometimes conflicting and not conclusive. Difficult to find products with ingredients in effective amounts.	
No	Studies either don't exist or show very little or no evidence to help with colds or flu, more studies are needed.	

References on file