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PHARMACY

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*Graedons' Guide to*

# *Colds, Coughs & the Flu*

## **OTC Cold Remedies:**

Be wary of multi-ingredient remedies that promise relief from a range of cold or flu symptoms. It's better to select a single ingredient that works rather than a conglomeration of drugs that could cause side effects.

## **Not for Kids!**

The president of the American Academy of Pediatrics, Jay Berkelhamer, MD, has said that OTC cough and cold medicines have "been found not to be effective in this population [infants and toddlers] at all."

As a result of his and his colleagues' efforts, the industry no longer markets to children under four. But Baltimore's health commissioner, pediatrician Joshua Sharfstein, MD, is still concerned about children aged two to six. He has stated, "There is no evidence that these products work in kids, and there is definitely evidence of serious side effects." Roughly 7,000 children under 11 are rushed to hospitals every year as a result of a bad reaction to a cough or cold medicine.

Considering how frequently people suffer from the flu or colds—there's a reason, after all, it's called "the common cold"—it's surprising how much misinformation there is out there about how we get and get *rid* of cold and flu viruses.

Folk wisdom maintains that becoming chilled—especially if clothes, hair or feet get wet—is likely to lead to a cold. Researchers have dismissed this belief as an old wives' tale. They see viruses as the only cause of colds.

Scientists have squirted cold viruses into the noses of volunteers and then exposed them to cold temperatures to see if this makes a difference. Studies that were done decades ago did not find an effect.

More recently, though, researchers in Wales had 90 volunteers put their feet in cold water for 20 minutes. Ninety others served as control subjects. Those who were chilled with cold water were more likely to report cold symptoms over the next five days (*Family Practice*, Dec. 2005). The investigators concluded that the old wives may have been right after all, though they are not quite sure why.

We've often heard doctors say that if you take an over-the-counter (OTC) cold remedy, you'll kick your cold in a week. Or, you can take nothing at all and recover in seven days. Their point is that cold remedies might relieve some symptoms, but don't have any effect on the underlying viral infections.

There's even evidence that some remedies may actually be *bad* for people with colds. Insomnia is a known side effect of oral decongestants such as pseudoephedrine and phenylephrine. Such ingredients are found in many popular cold remedies. Since sleep is essential for recovery from these nasty bugs (*Archives of Internal Medicine*, Jan. 12, 2009), anything that interferes with a good night's sleep seems counterproductive.

Other possible side effects of oral decongestants include: heart palpitations, an increase in blood pressure, feelings of anxiety or nervousness, headache, dizziness, and nausea. This list almost makes it sound like the cure is worse than the cause. And sometimes that may be true.

Popular pain relievers like aspirin, acetaminophen and ibuprofen are found in many cold and cough remedies even though we've known for decades that there could be a downside to giving these pain relievers to someone with a cold. As early as 1975, researchers published such findings in the *Journal of the American Medical Association*. Not only did they conclude that aspirin provides little symptom relief, it also increased "virus shedding" by 38%—i.e. it makes cold-sufferers into virus factories. The investigators concluded that "Aspirin treatment, which permits the person to stay on the job with more infectious secretions, should make him a greater epidemiologic hazard."

Australian researchers discovered that acetaminophen and ibuprofen were almost as bad as aspirin in this regard. A double-blind, placebo-controlled trial revealed that these pain relievers dampened the body's natural immune response and actually "increased nasal symptoms." (*Journal of Infectious Diseases*, 1990). And pharmacists at the University of Maryland reported that aspirin and acetaminophen actually *prolonged* flu symptoms by more than three days.

Antihistamines are ubiquitous in cold and cough remedies. Although such ingredients help relieve allergy symptoms, there has been some controversy over their benefit against colds or flu. They may relieve symptoms a bit by making your nose less drippy, but there are also drawbacks. Notably, they can make you feel so drowsy and dopey that it's be hard to do anything requiring coordination or mental ability.

Of course if you have a bad cold, you shouldn't be doing anything important anyway. But the manufacturers of these products often market them as good ways to get you back to work. We think that combination products probably shouldn't be used in that way, both because people shouldn't spread their viruses around at work and because driving or operating machinery while under the influence of an antihistamine is a bad idea.

## Common Antihistamines:

- Brompheniramine
- Chlorpheniramine
- Clemastine
- Diphenhydramine

## Decongestants:

- Pseudoephedrine
- Phenylephrine

*Oral decongestants work by constricting blood vessels in the nose.*

## Possible side effects:

- Heart palpitations
- Blood pressure increase
- Anxiety or nervousness
- Headache
- Dizziness
- Insomnia
- Nausea

## Grandma Graedon's Chicken Soup:

Take one large stewing hen and throw in extra backs and wings. Cover with water and top with two inches more.

Add: onions, celery, carrots, parsnips, parsley, bay leaf, thyme, peppercorns, and salt. For extra cold-fighting power, add several cloves of garlic, up to a head.

Simmer for about two hours, then strain out the chicken, vegetables and spices. Remove the meat of the chicken from the bones, and add it back to the soup with noodles, peas, rice, or other embellishments. Refrigerating the broth overnight makes excess fat removal easy: just skim it from the top.

## Kicking a Cold

So if OTC remedies can't cure a cold—and might even make things worse—what's the answer for making it through the misery?

Unfortunately, as we all know, there's no magic solution to the cold conundrum. All of the common-sense approaches apply: lots of sleep and rest, drinking fluids like water and hot tea, and taking a break from exercise and other physical exertion. Having a healthy immune system also helps you resist colds in the first place, and will allow you to recover from them more quickly. This means plenty of regular exercise when you are feeling well; eating a healthy diet with lots of antioxidant and nutrient-rich vegetables, fruits, and lean proteins; and making sure to engage in lots of the activities that you love, like spending time with family and friends, which will keep your body healthy by keeping your mind happy.

But when you're in the throes of a bad cold, nothing else really matters, and all we can think about is how to feel better fast. There are a few tried-and-true natural remedies that we have found to be very helpful for making a cold less torturous.

## Chicken Soup

In our house, the first weapon in the cold-fighting arsenal is definitely chicken soup. Joe's mother always fixed her special recipe (see sidebar at left) whenever anyone in the family was feeling under the weather, and we have found it to be remarkably effective (and tasty). There's also some scientific evidence to support the theory that chicken soup is good not only for the soul, but for colds.

Medicinal use of it dates back to Roman times. And in the late 1100s, Moses Maimonides may be the most famous physician ever to prescribe chicken soup. His advice seemed old-fashioned by the late 20th century. The popularity of chicken soup persisted with mothers and grandmothers, however, and in the 1990s, scientists started to look more carefully at this ubiquitous cold remedy. Dr. Irwin Ziment hypothesized that the amino acid cysteine found in chicken soup might act somewhat like acetylcysteine, a drug prescribed to thin mucus in the lungs. Dr. Ziment advocates chicken soup with garlic and spices.

Doctors at Mt. Sinai Medical Center in Miami tested it against hot and cold water,

and concluded that chicken soup was best in improving mucus flow in the nose. More recently, the journal *Chest* (2000; 118: 1150-1157) published research on chicken soup showing that it slows down the white blood cells that trigger inflammation in the lungs and airways. Much of the misery of a cold comes from inflammatory proteins reacting to the virus. This University of Nebraska research demonstrated that there are physiological reasons behind the power of chicken soup. They used a recipe from the chief investigator's wife's grandmother, Mrs. Fleischer. Her recipe resembles Joe's mother's, but includes turnips and a sweet potato and does not contain garlic. She strains the soup after cooking, purees the vegetables in a food processor, and adds them back to the broth with matzoh balls.

## Ginger Tea

Another of our favorite remedies is ginger tea. And we're not alone: ginger tea is popular around the world for colds. There aren't any double-blind placebo-controlled studies on ginger, but there is research to indicate that some constituents of ginger can attack cold viruses. Animal research also shows a compound in ginger is as effective for coughs as the OTC cough suppressant dextromethorphan. And ginger has long been touted as a good way to calm an upset stomach or nausea, which may occasionally be a problem.

One recipe we often use came to us from India, via West Virginia. The recipe: take a piece of fresh ginger root about as big as your thumb. Peel it, and grate it into a mug. Pour about 8 ounces of boiling water over it. Allow the mixture to steep for roughly 5 minutes, strain and sweeten to taste.

Ginger tea really helps ease coughs and congestion for a while. The cough-relieving compounds (gingerols) can also reduce pain and fever, so it's no wonder it helps ease cold symptoms. One warning: ginger keeps blood platelets from sticking together, so it shouldn't be taken with Coumadin, Plavix, Ticlid or other anticoagulants.

## Vitamin C

At this point, just about everyone has heard that vitamin C is supposed to help relieve cold symptoms. Some OTC remedies even tout C as a main ingredient.

But even after decades of popularity, there's still controversy about vitamin C's cold-killing power. There's no hard evidence that this vitamin can prevent upper respiratory tract infections like colds or flu. But what it seems C *can* do is boost immune function. And this may be why there are studies that suggest it's effective for relieving symptoms and shortening the duration of a cold.

There isn't any consensus about the appropriate dose of vitamin C, but there have been some studies that suggest 500 mg four times a day can help soothe a cold sufferer's misery without much risk of side effects. It is worth mentioning, though, that some people are susceptible to diarrhea at high doses of vitamin C. Cut back if you notice that symptom.

## Vitamin D

Another vitamin doesn't get nearly as much press when it comes to kicking colds, but it might be almost as important as C, and that's vitamin D.

Colds seem to strike most in the wintertime, which is when many of us aren't getting enough vitamin D. We require sunshine to manufacture vitamin D naturally. When levels dip, the body's immune system is suppressed, making us much more likely to get colds and the flu (and, new research reveals, also contributing to high blood sugar levels—even diabetes, osteoporosis, arthritis, and some types of cancer, just to name a few concerns).

The journal *Epidemiology and Infection* published a report in 2006 that proposed a link between vitamin D deficiency and an increase in influenza. And a study published in the February 23, 2009 issue of *Archives of Internal Medicine* revealed that people with a deficiency of vitamin D were significantly more likely to get a cold or the flu, and those with asthma or other respiratory ailments were affected more seriously. Those with especially severe deficiencies were 36% more likely to get respiratory infections.

Vitamin D deficiency is actually quite common, especially in older populations. But it has also become much more of a concern for young people, as we all spend much more time indoors in front of our computers year-round. One study indicated that more than a third of 18 to 29 year-olds were vitamin-D deficient at the end of winter. It's also unlikely that you will even know if you're vitamin deficient; people tend to attribute the symptoms, like fatigue, to other causes, and doctors are often

hesitant to test their patients for low levels of vitamin D, as many don't realize how prevalent deficiency of this nutrient is.

The good news is that vitamin D deficiency is relatively easy to treat. Just getting 5 to 10 minutes of sun exposure—without sunscreen or protective clothing—every 2 or 3 days is enough for most people. (Much more exposure than that, and sunscreen is appropriate.) The other solution is to take oral supplements of vitamin D. We recommend about 2,000 IU per day. It wouldn't hurt to have your physician order a blood test for 25 (OH) vitamin D to find out if you are low.

## Zinc

Researchers have been studying the effects of zinc on the common cold for decades now, ever since the 1980s when a stubborn little girl with leukemia refused to swallow a 50 mg zinc gluconate tablet. Instead, she kept it in her mouth and let it dissolve slowly. Remarkably, the cold she had been suffering from disappeared in several hours. This prompted her physicians to investigate whether or not zinc could stop cold viruses from multiplying and affect the course of the common cold.

Dozens of studies have been conducted since then, and the results have been mixed, making it quite difficult to determine how effective zinc really is. If you do feel inclined to give it a try, it's unlikely to hurt you; its only regularly reported side effect is nausea, which can affect up to 20% of those who try it, so be sure to take it with food. It also tastes rather unpleasant.

If you're still determined to try zinc, take it within 24 hours of coming down with cold symptoms, and be persistent: suck on lozenges every two to four hours.

## Elderberry

One herbal medicine that has been studied for influenza is elderberry, *Sambucus nigra*. An oral preparation called Sambucol cut the duration of flu symptoms nearly in half in one placebo-controlled trial (*Journal of Internal Medicine Research*, 2004). It seems that the elderberry extract activates the immune system to produce virus-fighting cytokines (*European Cytokine Network*, Apr-June 2001). Tea made from dried American elder flowers is a traditional cough remedy from the U.S., but has not been tested scientifically.

## Zicam

Many people find oral zinc lozenges hard to tolerate because of the taste. The Zicam line of cold and flu remedies also contain zinc, but as nasal gel and nasal gel swabs. Some research has shown Zicam to shorten the duration of cold symptoms. If started within a day of coming down with an infection, Zicam was able to shorten the course of the cold by roughly 75%, according to one double-blind, placebo-controlled trial published in the *ENT Journal* (October 2000).

Zicam products are widely available in drug stores, and at [www.zicam.com](http://www.zicam.com).

One possible drawback: some people report losing their sense of smell after using nasal zinc. A class action lawsuit was settled in 2006 for \$12 million, but the company admits no fault.

## Cold-EEZE

Another zinc product that lots of folks swear by is Cold-EEZE, over-the-counter lozenges, which taste surprisingly decent. They're made of zinc gluconate glycine, and they contain natural flavors, no preservatives, and no artificial coloring agents.

Cold-EEZE comes in a slew of flavors. They also make sugar-free versions, and they even have a glyce-mic-indexed version safe for those with diabetes. They're available in drugstores, or at [www.coldeeze.com](http://www.coldeeze.com) where you can download coupons.

## Echinacea

This native North American herb has been popular for more than a decade in the fight against colds and other infections. Some clinicians believe it boosts the immune system, and aids recovery.

Unfortunately, the results on studies about Echinacea are mixed. A well-controlled trial published in the *Archives of Internal Medicine* (June 14, 2004) reported no benefit.

Most of the research that showed a benefit was done in Germany with formulations (such as cold-pressed juice) not readily available in this country. In fact, there is no standard to determine which species of Echinacea or even what part of the plant should be used. This may be part of the reason for the lack of consensus on Echinacea's usefulness in fighting cold symptoms. The extraordinary variability of ingredients from product to product makes it very difficult to assess the benefits of this herb. Brands used in Germany such as EchinaGuard or in Switzerland like Echinaforce may provide the kind of quality control and clinical research that is not guaranteed from U.S. manufactured products.

Fortunately, the risks seem quite low. About the only toxicity appears to be associated with occasional allergy. There have been rare reports of rash, itching, shortness of breath or anaphylactic shock.

German clinicians recommend that Echinacea not be taken for more than eight weeks at a time. In one study, the benefits to the immune system lasted only about a week and then started to decline. People with TB, multiple sclerosis, other autoimmune diseases, HIV or AIDS should probably avoid Echinacea unless told otherwise by a physician.

## Andrographis

Another herb worth consideration is *Andrographis paniculata*. This Chinese herbal medicine has been used for centuries to relieve symptoms associated with colds and the flu. It appears to increase the body's ability to fight off a variety of infections, and to lower a fever without the side effects associated with aspirin, ibuprofen, or other anti-inflammatory drugs.

Double-blind, placebo-controlled trials on a special standardized extract of *Andrographis paniculata* and *Eleutherococcus senticosus* have been conducted by investigators from Sweden, Germany, and Chile, and the results have been impressive. Symptoms such as sore throat, cough, headache, runny nose, fever, and fatigue were relieved significantly better by the andrographis extract than by placebo. Side effects were rare, but Chinese doctors watch for dizziness, hives and heart palpitations. Pregnant women should avoid this herb. Because it can affect blood platelets, somewhat as aspirin does, we would encourage anyone taking anticoagulants such as Coumadin (warfarin), Ticlid (ticlopidine) or Plavix (clopidogrel) to avoid this herbal remedy as well.

The combination product was known as Kan Jang, from the Swedish Herbal Institute ([www.shi.se](http://www.shi.se)). It is no longer readily available in this country, but andrographis extracts are available under other brand names.

## Astragalus

Another Chinese herb known for its cold- and flu-fighting properties is astragalus. We've heard that some Chinese grandmothers put a little astragalus root into their chicken soup to speed recovery from colds and flu. Traditional healers in China believe that this herb strengthens "qi" (chi or life force). And pharmacologists outside of China have noticed that components of *Astragalus membranaceus* root fight rhinoviruses (viruses responsible for many colds), induce interferon (a natural virus-fighting compound made in the body), and activate white blood cells that fight infection.

The usual dose of astragalus root for treating colds is 10 grams made into tea. It can be found in many health food stores in capsules, tea bags or in tinctures. It is also included in some formulas with ginseng or other herbs. Or you could follow the example of the Chinese grandmothers and add it to your medicinal chicken soup.

Astragalus may be incompatible with certain other medications. Because it may affect anesthesia, we don't recommend it for people facing surgery. It might also interact with Coumadin and other anticoagulants (such as Ticlid or Plavix) to increase the risk of bleeding. We suggest that anyone taking astragalus for a cold should avoid decongestants, as there is a possibility of interaction. Diabetes drugs and beta blockers may also interact badly.

Side effects appear uncommon, but some people may experience digestive tract upset including gas or diarrhea.

## Garlic

Doctors around the world have been prescribing garlic for colds and coughs for a long time. Scientific studies have established that ingredients in garlic can fight fungus and bacteria. How or even whether it wards off viruses isn't well known. Nevertheless, many readers of *The People's Pharmacy* swear by the healing properties of garlic, including our own daughter: when she studied abroad in Beijing during high school, her Chinese host mother encouraged her to eat a clove of raw garlic every day. She came away convinced this cut down on infections. We've heard from lots of others convinced of the preventative powers of garlic. One fellow coming down with a nasty cold put 20 cloves of garlic in a pot of chicken soup, ate it all, and the next day his symptoms were gone. Also, he didn't spread any remaining viruses: nobody at work would get close to him!

## Hot Toddies

If you're already feeling bad and it's too late to *prevent* cold symptoms, nothing works quite like a hot toddy to make you feel better for a little while.

Here's one fairly classic recipe. (Rum, of course, isn't for children, alcoholics or anyone else avoiding alcohol). Put a spoonful of sugar in the bottom of a mug or heat-safe glass. Add hot water (as if for tea), lemon juice and a shot of rum. Stay put, enjoy, and relax.

For those looking for a non-alcoholic alternative, you might try: 5 slices fresh lemon; 5 slices fresh ginger root; 2 cinnamon sticks; 10 whole cloves; 1 quart water. Simmer ingredients for 15 minutes. Strain and sip one cup of liquid every 3 to 4 hours.

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## Calming Your Cough

A cough can often linger on for weeks after other cold symptoms disappear. And for many, a cough is the most unpleasant part of a cold. Some medications and remedies are especially good at getting rid of coughs specifically, and we've included those below.

If a cough doesn't get better within a couple of weeks, though, or if it starts to get worse, you should certainly see your doctor, as it could be the sign of pneumonia. You should also visit your doctor if your cough doesn't seem to have been brought on by a cold or upper respiratory infection of any kind, as it might be caused by something else. Blood pressure medications, such as ACE inhibitors (lisinopril and others), can lead to uncontrollable coughing.

### Cough Syrup

One remedy for calming a cough was easy to come by in this country back in the 19th century. Codeine was popular, effective and affordable. Even into the 1970s it was widely available without a prescription. Because codeine is classified as a narcotic, fear of abuse has made it much less available. Some states do allow you to buy codeine without a prescription. If yours is one of them, check with an independent pharmacy; it may be more likely to carry codeine than large chains that would rather not deal with the trouble of monitoring legitimate sales.

If your doctor is willing to prescribe a codeine-containing cough medicine, however, it is likely to do the trick. Not only does codeine ease a cough and help you sleep, it can calm diarrhea and relieve pain.

The most common cough medicine by far is dextromethorphan. It's the main ingredient in most OTC cough medicines, including Robitussin DM. (The "DM" is for dextromethorphan.) DM is widely available without a prescription because it doesn't fall under the narcotic classification—but it's also not clear how effective it is. One study found it does not work for children (*Clin. Pediatr.* Sept. 2006).

In 2006, the American College of Chest Physicians published guidelines discouraging patients from using dextromethorphan and OTC cough medicines for treating coughs. The authors of the guidelines argued that there wasn't enough clinical evidence of their effectiveness. Codeine is far more likely to soothe both your pain and your cough.

Codeine can be habit-forming in the long-term, though, so you should use it sparingly, and under a physician's supervision. Codeine can also cause constipation, drowsiness, and upset stomach. Do not drive if you have taken a codeine-containing cough medicine.

### A Spoonful of Honey

Once researchers demonstrated that dextromethorphan doesn't work very well for children, they tested an ancient home remedy. Children who were seen at a pediatric practice with upper respiratory infections and nighttime coughs were given either buckwheat honey, honey-flavored dextromethorphan, or nothing at all before bedtime. Honey outperformed the drugstore treatment as well as no treatment (*Archives of Pediatrics & Adolescent Medicine*, Dec. 2007).

Honey should never be given to babies a year old or younger. It can carry botulism spores that can make them very sick. But older kids are likely to do well with a bit of honey half an hour before bedtime, and they won't complain about it either. In the study, children 2-5 years old got 1/2 teaspoon, those 6-11 years got 1 teaspoon and 12-18 year-olds got 2 teaspoons.

### Vicks for your Sole(s)

Vicks VapoRub came into being more than a century ago, when North Carolina pharmacist Lunsford Richardson set out to make a cold remedy for his own children. To this day, it contains his original formulation of menthol, camphor, eucalyptus oil, cedarleaf oil, nutmeg oil, thymol, and turpentine oil in a petrolatum base.

Lots of those ingredients have long been considered helpful in easing coughs. Menthol, for example, is often included in cough drops. And Richardson must have been on to something: even the FDA has approved Vicks for use in soothing congestion and coughs.

A few years ago, we heard about an unusual way to apply Vicks: a nurse heard from someone in her church that putting Vicks on the soles of the feet could get rid of night-time coughs that make it hard to sleep. The nurse was skeptical, but she tried it on her 4-year-old with impressive results. We've now heard from hundreds of others who've had success with Vicks on the bottoms of their feet. Consider wearing socks to keep your sheets clean!

**Q. I have allergies that result in postnasal drainage. As a result, I find I cough all night long during allergy season. Is there a good home remedy to help night-time coughs?**

**A. Some of our readers report that Vicks VapoRub can soothe those coughs. But don't put it on your chest or under your nose. Here's one person's experience:**

**"My wife read your column on using Vicks VapoRub on the soles of the feet, covered with cotton socks, at night. I had been waking up every three hours with a coughing attack. I tried this remedy and IT WORKS!"**

### Cough Medicines with Codeine:

- Brontex
- Cheracol Cough syrup
- Guiatuss AC syrup
- Romilar AC liquid
- Tussi-Organidin NR

One reader shared this experience: ***“My wife used to get sore throats every winter. They’d hang on for weeks and develop into a loud, hacking cough. Until she recovered, neither of us would get much sleep.***

***“Then I remembered that my sister had a similar problem with her four growing boys. In desperation, she tried a remedy she read about: drinking ‘red’ grape juice regularly.***

***“Both my wife and I started drinking a glass of Concord grape juice every day fall through spring, and the problem vanished. Since then, we’ve almost never had a sore throat or bad cough.***

***“We drink half a glass of grape juice and add a half glass of water. We make the juice from frozen concentrate.”***

***In 2004, a study showed that neither dextromethorphan nor diphenhydramine (the antihistamine in Benadryl) worked better than placebo for kids’ coughs (Pediatrics, July 2004). Ian Paul, M.D., assistant professor of pediatrics at Penn State Hershey Medical Center, headed the study up. He told us, “One of the conclusions you could come to from the results of our study is that these medicines don’t work [for kids].” What makes DM more troubling is its potential for abuse. Some teenagers take high doses and may experience irregular heart rhythms, high blood pressure, confusion, hallucinations or seizures.***

## ***Thyme and Other Herbs***

We all know that the best remedy for a cold is time. But it can be frustrating to wait for nasty symptoms to go away. One thing that may help cut your suffering short is the other thyme, an herb. It can be tossed into chicken soup or made into tea. Put a half (1/2) teaspoon of thyme leaves (the packaged kind is fine) into a cup of boiling water, let it steep for five minutes, then strain out the leaves.

In Germany, the government has approved both thyme and star anise oil for colds and coughs. Other herbs traditionally used to soothe coughs are licorice (for short-term use only: it can raise blood pressure and affect hormones); menthol; and linden and elderberry flowers, dried and used for tea.

## ***Grape Juice***

Studies have shown that Concord grape juice has powerful anti-inflammatory properties, and some people claim that drinking it can help fight colds and soothe coughs. We’re not sure why it works, if it works—but unless you don’t like grape juice, it can’t hurt to try it!

## ***Dark Chocolate***

We think you might want to thank us for suggesting one unusual cough remedy: theobromine, one of the fundamental components of chocolate and cocoa, has proven cough-fighting powers. When British researchers tested it on guinea pigs, giving them citric acid to make them cough, they discovered that theobromine was able to override the induced coughs. It has also been shown to be effective for humans.

Unfortunately, we don’t know how much is best, or in what form, as the researchers administered pure theobromine, which is not available. Chocolate, however, is. According to Alan Greene, MD, “dark chocolate often has up to about 450 milligrams of theobromine per ounce....Two ounces of dark chocolate was the amount of theobromine used for the adults in the study. Half that may be plenty for kids....I used some fine dark chocolate for my own family during our latest viral cough illness, and our coughs disappeared nicely. What a pleasant way to get through a cold!” We think so, too! Remember, chocolate has calories; consume in moderation.

## ***Helping Kids Kick A Cough***

No parent can stand to stand to listen to their kids suffer with a cold or cough, and it’s easy when you feel powerless over your child’s misery to want to reach for the first thing that claims it can help stop the suffering, which is usually an OTC cough or cold remedy. But we strongly advise against this very understandable impulse. Not only do these remedies not appear to help—a study published in the journal *Pediatrics* found that two ingredients in cough medicines, dextromethorphan and diphenhydramine, worked no better than placebo for kids’ coughs—but they can also do some real harm. The study’s lead author, Ian Paul, MD, concluded that dextromethorphan made it harder for kids to fall asleep, which is the last thing a sick child needs.

But we know it’s nearly impossible to sit idly by when you have a sick child. So here are some suggestions for soothing coughs that we think are safe enough for children to try:

- **Vicks VapoRub on the soles of the feet for night-time cough**
- **Grape juice, which many kids love anyway**
- **Chicken soup with garlic and thyme**
- **Some sweetened ginger tea, if they don’t mind the strong taste**
- **A bit of buckwheat honey**
- **Lots of sympathy and love!**

## Fighting the Flu

If you're confused about flu shots, you're not alone. On the one hand, recent headlines have stated things like: "Proof Lacking for Flu Vaccine," or "Flu Vaccine Mortality Benefits For Elderly Vastly Overstated." But then just one week later, you could read: "Flu Shots for Elderly Are Effective," and "Flu Shots Halve Risk of Death, Cut Illness in Elderly."

How can any of us really know what to believe? The problem is that there is not enough data to know for sure. Experts have been arguing about this issue for decades.

A couple of years ago, an article in the *British Medical Journal* (Oct. 28, 2006) suggested that flu vaccination for healthy people under 65 "did not affect hospital stay, time off work, or death from influenza and its complications."

Public health officials worry a lot more about older people, of course, as they should. Older adults are especially vulnerable to death from influenza or its complications. Scientists have found that older people also do not mount as strong an immune response to the vaccination as younger people.

A pair of studies has created consternation because of conflicting conclusions. An analysis in *The Lancet Infectious Diseases* (Oct. 2007) concluded that vaccinating frail elderly people has not been shown to protect them from influenza death. Even though a majority (65%) of seniors now get a flu shot each year compared to 15% in 1980, mortality rates from flu and pneumonia have not dropped. A study in *The Lancet* (Aug. 2, 2008) reached the same conclusion about pneumonia.

But this bleak report was challenged in the *New England Journal of Medicine* (Oct 4, 2007). Researchers pulled together 10 years of data from health maintenance organizations and found that older people who were vaccinated were 27% less likely to need hospitalization for influenza or pneumonia. And according to this analysis, the death rate was halved. Now those sound like much better odds.

The problem with these studies is that they depend on observational data instead of placebo-controlled trials. Unfortunately, these kinds of studies are expensive. Many clinicians and public health officials worry that they would be ethically questionable since only one group of participants would be receiving the vaccine, which might then prove to be life-saving.

But without such data, experts have to sort through statistical tea leaves trying to determine

how well flu shots work. The truth is, we may never really know.

Another complicating factor is that flu shots don't work against all strains of the flu. The vaccine in 2007 was a big bust.

Every year, the flu shot is supposed to protect against three different strains of influenza virus. But public health officials have to guess eight months in advance *which* three flu viruses are likely to cause trouble.

In 2007, they guessed wrong. Two out of three strains didn't match the bugs that made people sick. And that may be why a Harris Poll found that people who got the shot in 2007 were just as likely to have suffered flu as those who skipped the vaccine.

And that wasn't the first time this problem arose. Several years before, the shot only protected 38% of those at high risk, because it didn't include what turned out to be the dominant strain of influenza that year. Even when scientists get lucky and guess right, the benefits of flu vaccination may have been oversold. It's not clear that there is a significant downside, though.

Luckily, there are some other options that may help during flu season. These include antiviral flu drugs such as Flumadine or Tamiflu that can be taken to speed recovery.

## Prescription Flu Medications

Although the prescription medications Tamiflu, Flumadine (rimantadine), Symmetrel (amantadine), and Relenza have been on the market for years, a surprising number of people still have never heard of them. A report published in *Reuters* (February 9, 2009) stated: "Only a small percentage of people who get influenza or a similar illness are ever prescribed drugs shown to help the virus." It further noted, "Doctors usually recommend only rest, fluids and perhaps analgesics for treating viruses such as flu, although influenza kills 36,000 Americans in an average flu season, according to the U.S. Centers for Disease Control and Prevention."

Anti-viral flu medications can't treat all strains of flu. Some are effective only against certain types and you may need a test to see which strain you have before the doctor can write your prescription. As with the flu shot, they're not always effective against the strains of flu that predominate in a given season, as was the case in 2008–2009. But overall, they work surprisingly well, especially when used within 24–48 hours of developing symptoms.

## Tamiflu Resistance

Although Tamiflu, like other prescription flu medications, has proven to be very effective in treating most strains of flu, it turned out to be ineffective against a strain of type A influenza during the 2008–2009 flu season. *The New York Times* reported on January 8, 2009:

"Virtually all the dominant strain of flu in the United States this season is resistant to the leading antiviral drug Tamiflu, and scientists and health officials are trying to figure out why..."

"Last winter, about 11 percent of the throat swabs from patients with the most common type of flu that were sent to the Centers for Disease Control and Prevention for genetic typing showed a Tamiflu-resistant strain. This season, 99 percent do."

Scientists are afraid that Tamiflu resistance could eventually appear in avian flu. If this happened at a time when avian flu spread readily between humans and became a pandemic, it could trigger a true public health crisis. Luckily, we are not yet at that stage, and we currently have other medications for treating different strains of flu.

## **Health Benefits of Vitamin D:**

Vitamin D is not just good for warding off colds and the flu. Among its other possible benefits are:

- Relief of joint pain
- Cancer-fighting properties
- Prevention of depressive symptoms, especially from seasonal affective disorder
- Blood pressure control
- Reduction of risk for heart disease and diabetes

Just remember that vitamin D supplementation should always be undertaken with a physician's guidance.

## **Neti Pot for Congestion**

A neti pot is used by practitioners of Ayurvedic medicine in India and elsewhere to keep your body's inner eco-system clean. It won't necessarily help a cough, but it may help ease congestion, which frequently accompanies colds and cough.

You use a neti pot by pouring saltwater into one nostril and letting it drain out the other. Neti pots can be found at some health-food stores. You can also buy one from the Himalayan Institute at **800-822-4547** or online at **www.netipot.org**. They cost roughly \$18-\$20.

Most people who use neti pots will tell you that they are most successful if used every day. They are touted for getting rid of allergies as well.

Those who prefer a more modern system for nasal irrigation may want to check NeilMed sinus rinse.

## **Vitamin D & Cod Liver Oil**

We've already discussed the important role vitamin D plays in keeping your immune system strong. It increases the production of a natural infection-fighting chemical that can help ward off illnesses caused by bacteria, fungi, and viruses, including influenza.

As we've mentioned, levels of vitamin D frequently drop in the winter when people don't go out in the sun. Many elderly people don't get outside even in the summer and are deficient in vitamin D year-round. That is increasingly true for all of us, as our work forces us indoors. The computer glow is no substitute for sunshine!

We think this may be why grandmothers used to insist on dosing the family with cod liver oil, which is naturally rich in vitamin D. They must have had a hunch about its natural ability to keep colds at bay.

Cod liver oil has quite a strong flavor, but the deodorizing process now used to make it more palatable may also remove most of the vitamin D. Whether you take it by the spoonful or in a capsule, check the label to make sure it has vitamin D.

The ideal dose of vitamin D has not been determined, but we think that for those found to be low in vitamin D, 2,000 IU per day is a reasonable intake.

## **Conclusions:**

### ***For Colds:***

- **Eat chicken soup**, and consider tossing in plenty of garlic & thyme
- **Sip ginger tea**, but remember not to use it with anticoagulants
- **Vitamin C and especially D** can help boost your immune response
- **Zinc**, in the form of Zicam or Cold-EEZE, may give you some relief
- **Remedies and herbs like Andrographis and Astragalus** may have you feeling better faster
- **A hot toddy** may give you a few hours' relief

### ***For Cough:***

- **Codeine with cough syrup** can soothe coughs and help you rest
- **Try smearing a little Vicks VapoRub** on the soles of your feet for a night-time cough (and wear socks to protect your sheets)
- **Tea made from thyme** could help calm a cough for hours
- **Drink Concord grape juice** to keep a cough at bay
- **Nibble a little dark chocolate**

### ***For Flu:***

- **Ask your doctor about prescription Tamiflu, Flumadine, or Relenza**
- **Don't be afraid of cod liver oil:** vitamin D will help boost your immune system. Read the label to make sure you are getting enough vitamin D