Un-Catching Colds

Do Popular Remedies Work?

BY DAVID SCHARDT

If you're a typical adult, every year you catch two or three colds…and two or three *dozen* advertising pitches for cold remedies.

Just drink a glass of OJ every day, say the ads. Or drop a tablet into water and swallow it before you board a crowded airplane.

And if you *do* get a cold? Suck on zinc lozenges or pellets of super-diluted duck organs and you'll feel better sooner.

Here's the scoop on some of the most popular over-the-counter cold products.

Orange Juice

Cost: 30¢ to 55¢ a glass.

Claim: "If you're concerned about catching a cold or the flu this season, here's an idea," says the Florida Department of Citrus TV commercial. "Move to a deserted island and avoid other people for six months. Or just drink a glass of Florida orange juice every day. Give your immune system more of the vitamins and minerals it needs."

Evidence: The Department of Citrus cites research on megadoses of vitamin C and the fact that the immune system uses the nutrients found in orange juice (just like it uses those same nutrients from other foods).

That's nice, but it's a far cry from proof that OJ is a cold-killer.

No matter. The citrus folks say that their ad doesn't make any claims about preventing colds. (If it did, they'd have to prove them to the FDA—a pretty tall order in the absence of any evidence.)

Instead, they say, the claim is "structure-function only." That's the kind that requires no evidence.

Bottom line: Orange juice is a healthy beverage (though your waistline might not like the 110 calories in each 8-oz. glass). But there's no evidence that drinking it will keep you from catching a cold.

Echinacea

Cost: About 35¢ a day.

Claim: "The world's best known herb for supporting the body's defense system," says supplement manufacturer Natrol.

Evidence: Can taking echinacea protect you from catching a cold? No, according to a 2006 review by the Cochrane Collaboration, an international network of scientists who evaluate medical research.[1] In the three trials that gave people echinacea for 8 to 12 weeks, the herb was no better than a placebo at preventing colds.

But the leaves and flowers of one strain of echinacea (purpurea) "might be effective" at treating colds, though the research is "not fully consistent," concluded the Cochrane reviewers after examining the results of 14 trials.

In 7 of the 10 trials that used purpurea, volunteers had shorter or milder colds. That was true in only 1 of the 4 trials that used other echinacea strains or mixtures of strains.

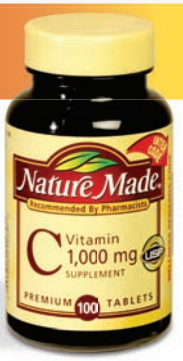
"The more recent, better-designed studies tend to find that echinacea doesn't work," notes researcher—and Cochrane reviewer—Bruce Barrett of the University of Wisconsin in Madison. "Or it's possible that echinacea has only a very small positive effect that some studies will pick up on and others won't, depending on how they're designed."

Bottom line: Taking echinacea regularly won't keep you from getting a cold. But starting it at the first sniffle might help dry up your runny nose or relieve other symptoms. The best evidence is for supplements made from the purpurea strain.

[1] *Cochrane Database Syst. Rev. 1*: CD000530, 2006.

Photos: USDA (orange juice), Nick Waring (all others).

Vitamin C



Cost: $2 to $8 a month for 1,000 mg a day.

Claim: "Vitamin C can prevent colds," says the alternative medicine site on the *New York Times*-owned www.about.com.

Evidence: "Vitamin C does absolutely nothing to prevent colds in most people," says Bob Douglas of the Australian National University in Canberra, who reviewed the evidence for the Cochrane Collaboration in 2004.[1] In 29 studies of more than 11,000 people, 200 mg to 2,000 mg a day of vitamin C (most people took 1,000 mg) didn't ward off colds.

What about helping those who got sick *despite* taking vitamin C regularly? In 30 studies in which people got some 10,000 colds, vitamin C cut about half a day off the typical five days they missed work or school, notes Douglas. It also curbed their coughing and other symptoms slightly. But when people started taking vitamin C only *after* they got sick, their colds were neither shorter nor milder.

Bottom line: Vitamin C doesn't prevent colds. But taking roughly 1,000 mg a day before *and* while you're sick may make your cold milder and shorten it by half a day or so.

[1] *Cochrane Database Syst. Rev. 4*: CD000980, 2004.

Multibionta

What's in it: A basic multivitamin plus a blend of "beneficial" (probiotic) bacteria. (Multibionta is available exclusively at CVS.)

Cost: $7 a month.

Claim: Helps "people who feel down or susceptible to a state of poor health."

Evidence: In the one good (company-sponsored) study, 225 healthy men and women who took the probiotic bacteria in Multibionta over two successive cold seasons got the same number of colds as 229 men and women who were given a placebo.[1]

But the probiotic takers' colds lasted two days less than the placebo takers' colds, and the probiotic takers had less coughing and other bronchial symptoms.

Bottom line: Taking Multibionta regularly won't keep you from getting a cold. But, at least in one study, it shortened the duration of colds by a couple of days and lessened coughing and other symptoms.

[1] *Clin. Nutr. 24*: 481, 2005.

Colds 101

The virus that causes the common cold can only hurt you if it gets into your nose, either directly or via the tear ducts in your eyes. So unless someone has sneezed near you, your own (contaminated) hands are probably to blame. (Your mouth is innocent. In a 1984 study, participants were unable to transfer the virus by kissing.)

Once the virus hits the back of your nose, it begins multiplying. Symptoms appear within 10 to 12 hours, peak at 1½ to 3 days, and are generally gone within a week.

How can you protect yourself? "Keeping your hands clean is one of the most important steps to avoid getting sick and spreading germs to others," says the Centers for Disease Control and Prevention in Atlanta.

Just don't assume you're safe if you haven't been near someone who has a cold. Researchers have found live cold viruses on hard surfaces in a hotel room up to 24 hours after cold sufferers checked out.

What's the best way to treat a cold?

"At the very first hint that a cold is starting, take a first-generation antihistamine and an NSAID every twelve hours and keep taking them even if you feel better," says cold expert Jack Gwaltney of the University of Virginia. "That won't stop the cold, but it will lessen the symptoms."

"If your cold isn't better after a week," adds Gwaltney, "check with your doctor to make sure you haven't developed a secondary bacterial infection. That happens in about one in 50 colds."

Here's our adaptation of Gwaltney's full prescription, which is based on the results of a half-dozen good studies. (We've put the names of some popular brands in parentheses.)

1. Begin treatment at the earliest sign of a cold.

2. Take a sustained-release, first-generation **antihistamine** (the kind that can make you drowsy) like diphenhydramine (Benadryl), chlorpheniramine (Chlor-Trimeton), brompheniramine (Dimetapp), or clemastine (Contac, Tavist). Newer, non-sedating antihistamines like fexofenadine (Allegra) and loratadine (Claritin) don't appear to be as effective.

3. At the same time, take a nonsteroidal anti-inflammatory drug (**NSAID**) like aspirin, ibuprofen (Advil, Motrin), or naproxen (Aleve).

4. Continue taking the antihistamine and NSAID every 12 hours until the cold symptoms clear (3 to 7 days).

5. If your stuffy nose or cough doesn't seem to be getting better, add an **oral decongestant** like pseudoephedrine (Sudafed) and a **cough suppressant** like dextromethorphan, or DM (Robitussin Cough DM).

6. If you feel worse or no better after 7 to 10 days, see your doctor. You may have developed a bacterial infection.

Source: adapted from www.commoncold.org.

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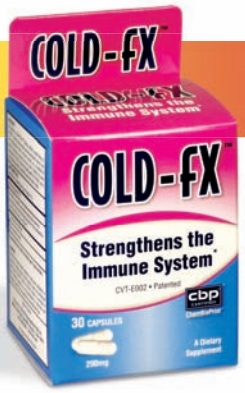

Cold-fx

What's in it: A standardized extract of carbohydrates from the root of the American ginseng plant.

Cost: $30 a month for two tablets a day.

Claim: "Helps your body's immune system work better to keep you going and active."

Evidence: Researchers have long suspected that something in ginseng can stimulate the immune system. CV Technologies of Edmonton, Alberta, has isolated an extract from American ginseng (not the more common Asian variety) that it markets as Cold-fx.

In several good company-sponsored studies, Cold-fx seemed promising:

- Canadian researchers recruited 279 healthy middle-aged men and women in Alberta who had caught at least two colds during the previous year. During the fall and winter of 2003-2004, the researchers gave roughly half of them two capsules of Cold-fx a day. The other half received two placebo capsules.[1]

After four months, 65 percent of the Cold-fx takers had caught at least one cold, versus 87 percent of the placebo takers. What's more, colds in the Cold-fx takers were milder and lasted 2½ fewer days.

- Among 200 residents of Canadian nursing homes or assisted living facilities, eight placebo takers but only one Cold-fx taker got the flu.[2]

- In a study of 43 U.S. citizens aged 65 and older, those who took two capsules of Cold-fx every day for four months were half as likely to catch a cold as those who were given a placebo. And their colds lasted half as long.[3]

Does it help to start taking Cold-fx "at the first sign of a cold," as the company's recent ad in *The New York Times* recommended? None of the studies looked.

Bottom line: Until more studies are done, it's too early to conclude that Cold-fx can shorten—or cut your odds of catching—a cold or the flu. Even so, Cold-fx is the only remedy we found with *any* evidence that it might improve your chances of getting through the cold and flu season without coming down with something.

[1] *CMAJ 173*: 1043, 2005.
[2] *J. Am. Geriatr. Soc. 52*: 13, 2004.
[3] *J. Altern. Complement. Med. 12*: 153, 2006.

Airborne

What's in it: A mixture of 17 vitamins, minerals, and herbs, including megadoses of vitamins A and C.

Cost: 75¢ a tablet. (The package says to take one every three hours as necessary.)

Claim: "Boosts your immune system to help your body combat germs." "Take at the first sign of a cold symptom or before entering crowded, potentially germ-infested environments."

Evidence: Americans will spend an estimated $300 million in 2007 on this cold remedy, which was created by a former California second grade teacher. Victoria Knight-McDowell has said that she invented Airborne ten years ago because she was tired of constantly catching colds from her students.

Apparently, she hasn't gotten tired of having no credible evidence that Airborne works. According to the company, a study it funded several years ago showed that Airborne relieved cold symptoms faster than a placebo. But Airborne won't make the study public. And a February 2006 investigation by ABC-TV discovered that the company that carried out the study, GNG Pharmaceutical Services, is "actually a two-man operation started up just to do the Airborne study."

"There was no clinic, no scientists, and no doctors," ABC reported.

If Airborne has any impact on colds, its high dose of vitamin C—1,000 milligrams per tablet—might be the reason. That much vitamin C may slightly reduce the length and severity of colds. But you can easily buy 15 vitamin C pills for the price of one Airborne tablet.

As for taking Airborne to repel germs in an airplane, restaurant, or other crowded environment, "that's nonsense," says cold expert Jack Gwaltney of the University of Virginia in Charlottesville. "Nothing you can swallow can do that."

Caution: Each Airborne tablet contains 5,000 International Units (IU) of the retinol form of vitamin A. Use two and you've hit the Tolerable Upper Intake Level—the largest amount of retinol that can be taken every day for months without risking liver damage, birth defects, and increased risk of hip fractures. Follow the package directions and you'll be taking 10,000 IU every six hours.

Bottom line: There's no good evidence that Airborne can protect you from catching a cold.