

COLD HARD TRUTH

Americans fight about 1 billion colds every year with little more than Kleenex and vitamin C. While we've at least got the flu shot to help prevent influenza, rhinovirus has us by the nose. But what about all those naturopathic products you say? Airborne, Zicam, trusty echinacea? Your officemate swears by them. But do they really work? We brought two of the nation's leading experts to settle the sniffles score.

OWEN HENDLEY

"IF IT WORKS FOR YOU, GREAT. BUT REALLY, IT'S A LOT OF FLAMING BS."

Owen Hendley, MD, is a pediatrician and professor of pediatric infectious disease at the University of Virginia School of Medicine. He has researched the origins of rhinovirus colds, sinusitis and otitis media (ear infection) for almost 40 years. He is a journal reviewer for *Pediatrics*, *Journal of Pediatrics*, *New England Journal of Medicine*, *Journal of Infectious Diseases*, *Infection Control* and *Pediatric Infection Control*. Hendley has published nearly 200 research articles.

If you ask Owen Hendley, MD, about the value of alternative cold remedies he'll tell you, "Well, they're really, really good. As good as anything else. Because nothing works." If anyone would know, it would be Hendley. He's studied the common cold for decades and has yet to see anything truly effective to prevent or treat it, pharmaceutical or not.

Apparently, the common cold is a bit of an enigma. "There is no clear evidence of anything [medicine] working in rhinovirus," which causes half of all colds, says Hendley. "We know that you inoculate yourself. You rub your eyes; the virus travels through the fluids, goes into the nose and attaches to the cells. The cells say 'we're infected' and holler for help, activating the proliferation of inflammatory cytokines, which result in the sneezing, running nose, watery eyes and congestion."

Medicinal logic goes, according to Hendley, that if a product can reduce the viral load, it will reduce the symptoms and hopefully the duration of an illness. "We used to have an assumption that 'jeez, if we just kill the virus we'll have a big-time effect on the infection.' But with colds that hasn't been true," Hendley says. "We have found you can reduce about half of the amount of the virus but it doesn't alter the symptoms. So why we can reduce the viral load but doing so doesn't affect how you feel? It must have something to do with the fact that the response is already in full effect, but it shouldn't be like that." Hendley says it may be related to the average duration of a cold. By the time viral load is reduced the cold has just about petered out anyway.

Still, he empathizes with the masses who scour the shelves for relief. "I am not opposed to people trying things," he says, referring to herbal and naturopathic remedies like echinacea, elderberry, zinc or vitamin C. "I have done a lot of clinical trials with a sample size of one—that one being me." But based on his research, he doesn't see the benefit. "I've tried all manner of medicines. But I don't find anything is particularly helpful."

Take echinacea. It was one of the first herbal remedies to come on the market and is available in almost every drugstore and grocery store. But Hendley isn't buying it. "They say that the pay-off for echinacea is that it tones up the immune system, thereby helping the body to fight the cold.

Well, I'm not overwhelmed by that." Regarding prevention, "I guess I am in the same place," he says. "A colleague of mine did a trial of echinacea in an induced cold model and found no difference in prevention or treatment. And he was able to really characterize well what was in his echinacea extract. For most of the extracts out there, you don't know what the hell is in them," Hendley warns.

Safety can be a concern, considering that the FDA does not regulate naturopathic and herbal remedies, unlike pharmaceutical drugs, which must show safety in animal models and a series of human clinical trials before being approved for prescription use. Last year, the maker of over-the-counter intranasal Zicam, a zinc-based product, voluntarily recalled the products based on reports that users were losing their sense of smell, and permanently in some cases.

The scare hasn't seemed to deter the public from opting for oral zinc however. But do they work? Don't bet on Hendley saying so. "The whole excitement with zinc got started in cell culture, where it showed a very small antiviral effect. But it was not clear how it worked. We even did a few zinc trials here, but they didn't demonstrate an effect," Hendley says. "But my co-worker down the hall swears by it!"

What about trusty vitamin C? Surely there is some benefit for that? "I used to know someone who swore by vitamin C for rhinovirus. If she felt a cold was coming on, she would down a glass of orange juice before bed. In the morning, if she felt better, she was certain the vitamin C worked. If she woke up and had a running nose, well, it was influenza then. Who can argue with that?" chides Hendley. "The truth is there is a big-time placebo effect in all the research. So having said that, if someone tries something and it works for them, I wouldn't advise against using it—as long as it is safe."

For Hendley, the bottom line is no medicinal products, pharmaceutical or natural, seem to work to stave off or treat a cold. "If something works for you, great. But really, it's a lot of flaming BS." Based on his years of treating patients and conducting research, he only knows of one tried and true to way to interrupt transmission: "Wash your hands."



“TO SAY THAT NATURAL REMEDIES DON’T AFFECT SYMPTOMS AND DURATION IS SIMPLY JUST NOT ACCURATE.”

Kenneth Pelletier, PhD, MD (honoris causa), is a clinical professor of medicine and public health at the University of Arizona School of Medicine and a clinical professor of medicine at the University of California School of Medicine, San Francisco (UCSF). He has written numerous books, including *The Best Alternative Medicine*; *Sound Mind, Sound Body*; and *New Medicine: Complete Family Health Guide*.

Don't tell Kenneth Pelletier, PhD, MD (hc), that alternative medicines offer no real relief from a cold. "It's not a matter of conjecture or opinion, but a matter of what does the science show? And there is excellent science behind the efficacy of a number of herbal, mushroom and other natural therapeutic agents that do have positive impact either on severity or duration of colds and flus," Pelletier says. "Yes, there is a frequent argument about the value of natural or herbal remedies, but it is simply a lack of knowledge about the science."

In fact, he argues that many work as well as marketed pharmaceuticals, such as Tamiflu. "If you look at the research for Tamiflu and other antiviral agents effective against cold or flu, the natural remedies impact the duration of the cold or flu at exactly the same or a larger order of magnitude as commercial antivirals. Not only is there a good evidence base, but it is the essentially the same basis by which the commercial antivirals are sold and marketed." To state that they don't affect symptoms and duration is "just simply not accurate."

So which products work best and which don't? Depends if you're trying to prevent a cold or treat one, says Pelletier. "There are a host of situations to consider. One is prevention. And then there is early intervention. Thirdly, once if and when a cold is not prevented, then how do we affect the course of the illness? There is also a difference as to what the best scientific evidence indicates versus what does and does not work for you. And that is really critical with biochemical individuality," says Pelletier. "We can narrow it down to those agents that are most likely to be effective, but ultimately, whether elderberry or echinacea works better for you is going to be dependent on trial and error."

If you want data, Pelletier has that, too. "Of the herbals, the best evidence of efficacy is a meta-analysis from the *British Medical Journal* with early and sufficiently high dosages of echinacea. The evidence for it preventing the progression of a cold or flu is not great. But for treatment echinacea is excellent," because it eases symptoms and reduces duration. Basic research shows echinacea acts like a moderate antibiotic. It elevates the white blood cell count temporarily and that's thought to be the mechanism whereby it fights infection. There are little, if any, side effects when taken according to recommended dosages.

If you've tried echinacea without success, Pelletier

recommends ginger once a cold caused by rhinovirus has set in. He says ginger tea is best, although raw ginger or ginger capsules also have benefits. "Have a cup of tea every three to four hours. Research shows that it reduces the intensity and duration, and also there is some evidence that it prevents secondary infection," Pelletier says. "So if you have a cold or flu, antibiotics are absolutely of no use unless a secondary infection, such as tonsillitis or sinusitis, develops, and there is evidence that ginger does in fact prevent this."

As for zinc, well, Pelletier is more cautious. "Viruses don't like zinc-rich environments. For oral zinc lozenges, there is a small amount of research that they reduce symptoms," mainly coughing frequency, nasal discharge and soothing sore throats. "So it only really works during onset to diminish the intensity. The problem is that there have been a number of cases where some individuals have their sense of smell inhibited," and for some people, irreversibly. "That is a pretty serious side effect. And while it seems to be limited to that one product, and the number of cases is not very large, it is a very real risk," warns Pelletier.

One product Pelletier cannot recommend is Airborne, a vitamin and mineral dietary supplement. "Here the evidence is theoretical, not empirical. As far as I know, there is zero research to support the efficacy of Airborne. It doesn't mean it doesn't work. It's simply that the company hasn't conducted research to show that it works." According to Pelletier, Airborne combines common homeopathic cold remedies but in "very, very modest dosages." So while there is nothing in it to cause harm, you'll likely get a placebo response, he says. "Over-the-counter homeopathy is probably mediocre. There are therapeutic issues, too. A lot of homeopathic practitioners prefer one remedy. They don't like a 'polypharmacy approach,' which is what Airborne is." If you're interested in homeopathy, Pelletier recommends seeing a licensed clinical homeopath.

Finally, Pelletier sees no reason to lay off vitamin C when you start to feel the sniffles. He says there's good data that two to three grams every three to four hours the first day can "arrest the progression or decrease the intensity of a cold." Lower your dose during following days. "There are more than 30 placebo-controlled, randomized trials that show vitamin C, if started early, has as much impact on the duration and intensity of a cold as any neuraminidase-inhibitor, like Tamiflu."



In the March/April issue, our experts faced off over whether soy was safe. **Here's how you voted:**

I'M KEEPING SOY IN MY DIET!

57%

I'M GOING TO EAT LESS SOY!

43%

SOLD ON ALTERNATIVE REMEDIES TO CURE YOUR COLD? YOU DECIDE AT SOBEFITMAGAZINE.COM.

