Basic Health Info

Immune Boost 1-2-3

By Chet Zelasko, PhD

Whether it's a cold or the flu or seasonal allergies, you can head it off or at least make it milder if you attack it early with Immune Boost 1-2-3. When you feel that first tickle in the back of your throat, that first nasally sensation, that's when you have to take action. Here's what it is and how it works.

Echinacea

It begins with echinacea. The research on echinacea is equivocal when it comes to treating colds, but when it comes to boosting the immune system at the beginning of immune challenges, the research supports its use. There are three key factors.

- Echinacea must be started at the first hint of a symptom, as I suggested above.
- The dose must be high enough to stimulate the immune system; I recommend 500 mg of echinacea derived from both the root and aerial parts three times per day.
- Echinacea works best for those with a compromised immune system. Even the healthiest person will catch a cold or have seasonal allergies, but if you have a weak immune system to begin with, or it's been weakened by illness or stress, echinacea will be even more effective.

Garlic

The second part of our immune boost supplements is garlic. Garlic has been noted to have beneficial properties for over 5,000 years. Garlic thins the blood, thereby benefiting blood pressure, and helps lower cholesterol. Garlic does many things, but what benefits our immunity is its ability to boost the immune system while reducing inflammation.

There is little question that garlic helps the immune system. It's been used as a dietary treatment to help the immune system recover from chemotherapy; it's also been used in supplement form to help the immune system get and stay stronger. That's an obvious way it helps with viruses and allergies, but it also acts as an anti-inflammatory. It's important to remember that inflammation occurs whenever our body is under attack—not broken-leg inflammation but the release of negative hormones. Garlic helps reduce that type of inflammation.

Just as with echinacea, it's important to begin as soon as the first tickle occurs. The quantity would be 600 mg taken three times a day. That gets our immune system starting to work better, but there's one more thing we need.

Vitamin C

The third part of our immune system boost is vitamin C. Also known as ascorbic acid, it's best known as an antioxidant. From the research of Linus Pauling until today, vitamin C has been researched extensively. Even though vitamin C hasn't been proven to prevent a cold, it does seem to reduce the symptoms of a cold. That may be the result of its antioxidant capacity to reduce inflammation.

When the body is exposed to viruses or allergens, the immune response is triggered. That's desirable, of course, but what we don't like are the symptoms associated with the response such a watery eyes, runny nose, congestion, and on and on. While the exact mechanism is unknown, what may be happening is that vitamin C may be clearing up the free radicals on immune response cells, thereby allowing them to function better. No one knows but it makes sense.

Take 250–500 mg three times a day. Some people increase their C to 10 times that amount, but my strategy is always to take the lowest amount to get the result I want.

Immune Boost 1-2-3

Let's summarize our immune boost 1-2-3:

250–500 mg vitamin C; usually 1 tablet
600 mg garlic; usually 2 tablets
500 mg echinacea; usually 3 tablets

Just remember C-G-E-1-2-3; check the label to make sure you have the right strength. Take this combo three times a day until the symptoms are resolved. Whether a virus or seasonal allergies, I've found this works best. Of course, genetics may make one immune booster more effective for some people; that's where trial and error come in.

Protect Yourself Before You Travel

Paula's cousin recently visited friends in Arizona, and after she flew home, she got a fever with all the trimmings of the flu. In addition to Immune Boost 1-2-3, there's one more thing to do before traveling: you need to prepare for the new germs you're going to encounter. It's especially true if you're going to foreign countries but any time you travel, you should do one more thing besides use the immune boost 1-2-3: take a probiotic supplement with prebiotics every day for a week before you go and every day you're there.

Your immune system starts in the gut; if your gut is healthy, your immune system will be stronger. Probiotics are the good microbes that help us digest food and do thousands of other things to help our overall health. Prebiotics are the fiber and sugar that feed these bacteria. Adding a probiotic to the 1-2-3 regimen, beginning a week before you travel, will help when you eat foods you don't normally eat and when you are exposed to viruses and bacteria that are not in your everyday environment. After all, the idea is to relax and renew, not be forced to the sidelines.

Immune Boost 1-2-3 Cautions

Someone recently asked an excellent question: "Is there any risk in taking higher amounts of echinacea?" I'll extend that to include vitamin C, garlic, and probiotics. The answer is possibly. I'm not hedging, but it's complicated. Let me give you some examples.

One factor that can apply to any supplement is allergies. Echinacea and garlic are plants, and you may be allergic to one of the components of the plant. Instead of reducing your allergic response, it may heighten the response, causing the watery eyes and runny nose you're trying to avoid. There's no way to know for sure other than trial and error. If something makes you feel worse, it goes without question that you'll stop it immediately.

Another potential issue is your genetics; you may process a phytochemical from these plants faster or slower than typical. That means it could be metabolized out of your system before it really has a positive effect or it could take longer to metabolize and stay in your system longer. There are no genetic tests for how you'll react to any supplement—it's trial and error.

One other aspect that's important is whether you take medications. No surprise that there's incomplete research on the interaction of every plant with every medication, so there's no way to know how an herb or nutrient will interact with your meds. Garlic may reduce the coagulation of your blood; if you're on blood thinners, you may not be able to take garlic because it could thin your blood too much. Or you might be able to take it because of your genetics and how you metabolize it. See how complicated it gets?

What you should know is that most people will not have a problem using the 1-2-3 immune boost. If you do, do what any reasonable person would do and stop taking it.

Echinacea and the Immune System

As I write this, there are 1,098 citations in the PubMed database for echinacea. I looked at every title to see if it was relevant to answering one question: should people who have an autoimmune disease use echinacea for allergies and colds? I examined at least 100 abstracts and downloaded five papers that seemed to be significant. Here's what I found.

The research on echinacea is a mess. There's no consistency in the preparations used in research, the subjects included in the studies, the outcome variables that were examined, or the combination of herbs, vitamins, or minerals used in the preparations with echinacea. That's just to find out if echinacea has any effect on catching or treating a cold. Beyond that outcome, the research is even less clear.

I found two studies that give some perspective on whether echinacea is safe for anyone to use including those who have an autoimmune disease. The first paper is a case study on a patient who suffered a breakdown in the myelin sheath after taking an herbal preparation (1). The paper reviewed all similar cases of echinacea causing similar symptoms. Based on their conclusions, boosting the immune system with echinacea could have negative effects.

There are several problems with this case study and the conclusions the authors made. While they assigned blame to echinacea, none of the subjects used echinacea alone nor were they administered the same way. Some were given orally while two others were injections. They did not examine any measures of immune function in the patients. They did not test for metabolites of echinacea nor any other herb in the blood of the subjects. They deduced that echinacea had to be to blame because of its reputation as an immune booster. One more thing: with the millions of uses of echinacea every day around the world, there were just four cases in 16 years. You read that correctly: four in 16 years. Those are pretty good odds.

In another paper, researchers examined the safety of oral preparations of echinacea (2). This was an old-school approach: instead of selecting research papers to include in a meta-analysis, they examined all the pertinent research one article at a time. They used their knowledge of how drugs are metabolized by the body, how they interact with other medications, and many other indications related to the safety of medications including herbals. They concluded that echinacea does not interact with medications to any degree. While it may change how the medication is metabolized, echinacea doesn't change how effective the medication is.

More important, they concluded that there's no indication in the science that echinacea is harmful to those with autoimmune diseases. They explain the reasons why physicians have believed echinacea could have consequences, but there was no evidence it was harmful. There was also no time restriction for the use of echinacea. If you have an autoimmune disease, I urge you to download and read the second reference for yourself. It's open access and while it's tough reading, it's the best resource I've found on the issue.

If you have an autoimmune disease, you must check with your physician before using echinacea; he or she knows the specifics of your condition. Based on my review of the research, there's no reason you cannot use echinacea to help your immune system when it's under attack from a virus or allergens for a few days. But that's not my call to make; there's always the possibility of an abnormal response or of an allergic reaction to the plant material itself. It's something you need to talk with your healthcare professional about, but it should be a discussion, not a lecture.

I know you want clear answers, but that's just not completely possible in this case. What you have now is information with which to make an informed decision.

References

1. Balkan Med J 2016;33:366-9.

2. Planta Med 2016; 82: 17–31.

Dr. Chet Zelasko is dedicated to helping men and women get healthy and fit. As a health and fitness consultant with a PhD in Exercise Physiology and Health Education from Michigan State University, he provides health information based on the most recent research and delivers it in a way that's easy to understand. Whether in person during seminars, in audio recordings, or in the written word, he makes sense out of the health news people hear so they can make better health choices and achieve optimal health. He's conducted research and been published in peer-reviewed journals. He is certified by the American College of Sports Medicine as a Health and Fitness Specialist and has taught in ACSM certification workshops throughout the United States; he also belongs to the American Society of Nutrition. Although Grand Rapids, Michigan, is home, he has presented seminars on health to groups all over North America, Mexico, and the Caribbean and has written extensively on the health benefits of a good diet, regular exercise, and targeted supplementation.