



ELITE

Personal Training and Fitness Solutions

# HEALTH TOPIC OF THE WEEK

## 10/31: Echinacea

If you've ever Googled natural remedies for the flu or common cold, you have probably come across echinacea. There are a plethora of claims and testimonials on the internet for this popular herb. Echinacea is touted as having a significant ability to bolster the body's immune system and fight colds and flu. But can it deliver?

Let me provide an unbiased and scientific perspective.

### What Is Echinacea?

Echinacea is a plant native to central and eastern North America. It was used as folk medicine by Native Americans to reduce cold symptoms and treat coughs, sore throats, and headaches.



When explorers Lewis and Clark learned about the uses of this medicinal plant in 1805, they considered it one of their most important finds, mailing its seeds and roots back to President Thomas Jefferson.

### Why should we take Echinacea?

Echinacea can boost immune function to combat flus, colds, and other respiratory tract infections. It is also an anti-inflammatory.

### What is the science for taking echinacea?

Clinical studies have shown that compared to a placebo, echinacea can lead to an improvement in cold symptoms, fewer days with severe symptoms and a reduction in cold incidence and severity.



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A systematic review of preclinical and clinical studies found that echinacea decreases pro-inflammatory cytokines (cells that cause inflammation).

Meta-analysis of 24 controlled trials, involving a total of 4631 participants, reported a reduction in the incidence and severity of cold and upper respiratory tract symptoms. In fact, participants who took echinacea had 3.4 days duration of upper respiratory tract infection symptoms versus 8.6 days with a placebo. When you're feeling miserable, that's a significant difference!

### How does echinacea work?

Echinacea contains several bioactive chemicals. Each plays a role in echinacea's therapeutic effects. Active chemicals include phenolics, polysaccharides, glycoproteins, alkamides, volatile oils, and flavonoids. They are found in the roots, flowers, and leaves of the plant.

Chemicals contained in the root differ considerably from those in the upper part of the plant. The roots have high concentrations of volatile oils (odorous compounds). The above-ground parts of the plant contain more polysaccharides (substances known to trigger the activity of the immune system). The combination of these active substances is responsible for echinacea's beneficial effects.



### Not all Echinacea is the same

Most echinacea supplements contain only one species, with 80% of all products relying solely on *Echinacea purpurea*. However, *Echinacea angustifolia* and *Echinacea pallida* have value as well. Echinacea comes in teas, capsules, pills, liquid extracts, or dried herbs.

To maximize echinacea's full immune-supportive potential, a supplement should contain extracts from various parts of the plant, as well as more than one plant species. This is the best way to deliver echinacea and reap its rewards.

Many brands do not contain standardized ingredients or consistent potencies. A study performed by [ConsumerLab.com](http://ConsumerLab.com) (an independent company that tests the purity of health, wellness, and nutrition products) found that of 11 brands of echinacea purchased for testing, only 4 contained what was stated on their labels.

About 10% had no echinacea at all. Half were mislabeled as to the species of echinacea in the product, and more than half of the standardized preparations did not contain the labeled amount of active ingredients.



If you are interested in echinacea, please get in touch. We do not sell supplements or receive compensation for endorsement. However, we've done our research and can recommend products that have guaranteed potency and standardized extracts.



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## Takeaways



1. Echinacea use can lead to an improvement in cold symptoms, fewer days with severe symptoms, and reduction in cold incidence and severity.
2. Select a product that contains more than one plant species as well as extracts from various parts of the plant.
3. Reach out to EPT for questions regarding echinacea or other health and wellness concerns.

### References:

1. Brinkeborn RM, Shah DV, Degenring FH. Echinaforce and other Echinacea fresh plant preparations in the treatment of the common cold. A randomized, placebo controlled, double-blind clinical trial. *Phytomedicine*. 1999 Mar;6(1):1-6.
2. Schulten B, Bulitta M, Ballering-Bruhl B, et al. Efficacy of Echinacea purpurea in patients with a common cold. A placebo-controlled, randomised, double-blind clinical trial. *Arzneimittelforschung*. 2001;51(7):563-8.
3. Tiralongo E, Lea RA, Wee SS, et al. Randomised, double blind, placebo-controlled trial of echinacea supplementation in air travellers. *Evid Based Complement Alternat Med*. 2012;2012:417267.
4. Available at: <https://www.consumerlab.com/reviews/echinacea-review/echinacea/>. Accessed August 12, 2022.
5. Kindscher K. The Uses of Echinacea angustifolia and Other Echinacea Species by Native Americans. In: Kindscher K, ed. *Echinacea*. Cham: Springer International Publishing; 2016:9-20.
6. Karsch-Volk M, Barrett B, Kiefer D, et al. Echinacea for preventing and treating the common cold. *Cochrane Database Syst Rev*. 2014 Feb 20;2(2):CD000530.
7. Dalby-Brown L, Barsett H, Landbo AK, et al. Synergistic antioxidative effects of alkamides, caffeic acid derivatives, and polysaccharide fractions from Echinacea purpurea on in vitro oxidation of human lowdensity lipoproteins. *J Agric Food Chem*. 2005 Nov 30;53(24):9413-23.
8. Gan XH, Zhang L, Heber D, et al. Mechanism of activation of human peripheral blood NK cells at the single cell level by Echinacea water soluble extracts: recruitment of lymphocyte-target conjugates and killer cells and activation of programming for lysis. *Int Immunopharmacol*. 2003 Jun;3(6):811-24.
9. Ritchie MR, Gertsch J, Klein P, et al. Effects of Echinaforce(R) treatment on ex vivo-stimulated blood cells. *Phytomedicine*. 2011 Jul 15;18(10):826-31.
10. Currier NL, Miller SC. Natural killer cells from aging mice treated with extracts from Echinacea purpurea are quantitatively and functionally rejuvenated. *Exp Gerontol*. 2000 Aug;35(5):627-39.



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11. Park SJ, Lee M, Kim D, et al. Echinacea purpurea Extract Enhances Natural Killer Cell Activity In Vivo by Upregulating MHC II and Th1-type CD4(+) T Cell Responses. J Med Food. 2021 Oct;24(10):1039-49.
12. Brousseau M, Miller SC. Enhancement of natural killer cells and increased survival of aging mice fed daily Echinacea root extract from youth. Biogerontology. 2005 2005/05/01;6(3):157-63.
13. Aucoin M, Cardozo V, McLaren MD, et al. A systematic review on the effects of Echinacea supplementation on cytokine levels: Is there a role in COVID-19? Metabol Open. 2021 Sep;11:100115.
14. Hall H, Fahlman MM, Engels HJ. Echinacea purpurea and mucosal immunity. Int J Sports Med. 2007 Sep;28(9):792-7



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