Echinacea, also named purple coneflower, coneflower and American coneflower, is a commonly used herb in North America. Of the nine known native species, Echinacea purpurea, Echinacea angustifolia and Echinacea pallida are most commonly used. The entire plant is used, fresh or dried, to make teas and can be squeezed to make extracts. Many of my patients rave about its ability to decrease or stop the symptoms of upper respiratory infections (URIs).

Standardized echinacea extract or placebo was given to eight horses for 42 days. Echinacea increased the phagocytic ability of isolated neutrophils in the horses, boosted peripheral lymphocyte counts, stimulated the neutrophil migration from peripheral circulation into the tissues and increased the size and concentration of peripheral red blood cells and the concentration of hemoglobin and packed cell volume.

Often, when randomized control trials (RCTs) did not show positive findings, the poor outcomes were blamed on the use of the wrong part of the herb, inadequate concentrations, the use of the wrong type of echinacea or that the preparations were started too late. There is also controversy about the different methods of

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Echinacea does not work

- Four hundred thirty-seven young adults were given either one of three echinacea preparations with distinct phytochemical profiles that were produced by extraction from E. angustifolia roots with supercritical carbon dioxide, 60% or 20% ethanol or a placebo. There were seven subgroups among the volunteers that received the various combinations of echinacea and/or a placebo in two phases: a prophylaxis phase and a treatment phase. The prophylaxis phase lasted seven days. On the seventh day, the already-treated volunteers were exposed to a nasal mist containing the common-cold virus. There were no statistically significant effects of the three echinacea extracts on rates of infection, severity of symptoms or virus titres.

- One hundred twenty-eight patients were given either 100 mg of E. purpurea (freeze-dried, pressed juice from the aerial portion of the plant) or a placebo, three times daily, within 24 hours of cold onset, until cold symptoms were relieved or until the end of 14 days, whichever came first. Symptoms were scored subjectively by the patient and recorded daily in a diary. There was no statistically significant difference for either total symptom resolution.

- Four hundred seven healthy children two to 11 years of age were given either echinacea or placebo for up to three upper respiratory infections (URIs) in a four-month period. Study medication was begun at symptom onset and continued throughout the URI, for a maximum of 10 days. There was no statistically significant difference in the duration or severity of symptoms. There was no difference in the rate of adverse events, but rash occurred in 7.1% of the URIs treated with echinacea and in 2.7% of those treated with placebo. However, there was a significantly lower incidence of subsequent URIs in those children receiving echinacea.

- One hundred forty-eight students were given E. purpurea in an encapsulated mixture of unrefined E. purpurea herb (25%) and root (25%) and E. angustifolia root (50%) from Shaklee Tecnica, 1 g doses, six times per day on the first day and three times per day for up to nine days, or placebo for the treatment of the common cold. No significant difference on any outcome measure, including cold duration and symptom severity measures, was found.

- In a structured review of 322 articles related to echinacea and colds, nine placebo-controlled clinical trials were found. Of the nine studies, two met the 11 criteria of an unbiased study. The results of both studies were judged to be negative by the people who performed the studies. Of the remaining seven studies, six were judged to have positive results and one had negative results. The criterion most commonly not met was proof of blinding. This structured review suggested that the possible therapeutic effectiveness of echinacea in the treatment of colds has not been established.

It is usually advised that echinacea should not be used in patients with immune dysfunction or autoimmune disorders like multiple sclerosis, tuberculosis, AIDS or lupus.

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Resources