



Echinacea

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CASRN: 84696-11-7; 90028-20-9; 97281-15-7

Drug Levels and Effects

Summary of Use during Lactation

Echinacea species (*Echinacea angustifolia*, *Echinacea purpurea*, *Echinacea pallida*) contain high molecular weight polysaccharides (e.g., heteroxylan, arabinogalactan) and lower molecular weight compounds (e.g., alkylamides, caffeoyl conjugates such as cichoric acid and echinacosides), but no single chemical is known to be responsible for *Echinacea*'s biological activity. Some products have been standardized based on echinacoside, and others on cichoric acid. *Echinacea* has no specific uses during breastfeeding, but is commonly used orally to treat or prevent upper respiratory infections. Excretion of some of the purportedly active alkamides was found in breastmilk in one mother. No data exist on the safety and efficacy of *Echinacea* in nursing mothers or infants. In general, *Echinacea* is well tolerated with gastrointestinal upset, diarrhea and constipation, skin rash and rarely allergic reactions reported. It may also alter the metabolism of some drugs metabolized by the P450 enzyme system. Some sources indicate that *Echinacea* is safe in recommended doses,[1] while others recommend avoiding it during breastfeeding because of the lack of published safety data. *Echinacea* has also been used topically to treat skin infections. A topical combination with *Calendula* (Calendit-E) was more effective than breastmilk in treating sore and cracked nipples in one study.[2-4]

Dietary supplements do not require extensive pre-marketing approval from the U.S. Food and Drug Administration. Manufacturers are responsible to ensure the safety, but do not need to *prove* the safety and effectiveness of dietary supplements before they are marketed. Dietary supplements may contain multiple ingredients, and differences are often found between labeled and actual ingredients or their amounts. A manufacturer may contract with an independent organization to verify the quality of a product or its ingredients, but that does *not* certify the safety or effectiveness of a product. Because of the above issues, clinical testing results on one product may not be applicable to other products. More detailed information [about dietary supplements](#) is available elsewhere on the LactMed Web site.

Disclaimer: Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

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Drug Levels

Maternal Levels. One woman was given 4 *Echinacea* Premium tablets (each containing the equivalent of 675 mg of *Echinacea purpurea* root and 600 mg of *Echinacea angustifolia* root made from the dried ethanolic extracts). The total dose of N-isobutyldodeca-2E,4E,8Z,10E/Z-tetraenamide alkaloids was 13.1 mg. The alkaloids were present in breastmilk between 1 and 4 hours after ingestion in concentrations similar to those reported in the blood with the same dose of the product.[5] Further details were not present in the abstract.

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

Relevant published information was not found as of the revision date.

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

References

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3. As'adi N, Kariman N. Herbal prevention and treatment of nipple trauma and/or pain in Iranian studies: A systematic review. *J Herbmed Pharmacol.* 2018;7:168–75. doi: [10.15171/jhp.2018.28](https://doi.org/10.15171/jhp.2018.28).
4. Pezeshki B, Pouredalati M, Zolala S, et al. Comparison of the effect of aloe vera extract, breast milk, calendula, curcumin, lanolin, olive oil, and purslane on healing of breast fissure in lactating mothers: A systematic review. *Int J Pediatr-Mashhad.* 2020;8:10853–63. doi: [10.22038/ijp.2020.46125.3760](https://doi.org/10.22038/ijp.2020.46125.3760).
5. Matthias A, Merika H, Addison RS, et al. Bioavailability of echinacea alkaloids in human breast milk. *Planta Med* 2008;74:921. Abstract. doi:10.1055/s-002-12952

Substance Identification

Substance Name

Echinacea

Scientific Name

Echinacea angustifolia; *Echinacea purpurea*; *Echinacea pallida*

CAS Registry Number

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Drug Class

Breast Feeding

Lactation

Complementary Therapies

Phytotherapy

Plants, Medicinal