



Coriander

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CASRN: 84775-50-8

Drug Levels and Effects

Summary of Use during Lactation

Coriander (*Coriandrum sativum*) seeds contain a volatile oil, consisting mainly of linalool, which is responsible for its odor and taste. It also contains 1,8-cineole (eucalyptol). Coriander is a purported galactagogue, and has been included in some mixtures promoted to increase milk supply;^[1,2] however, no scientifically valid clinical trials support this use. Galactagogues should never replace evaluation and counseling on modifiable factors that affect milk production.^[1,3] Coriander is "generally recognized as safe" (GRAS) as a food by the U.S. Food and Drug Administration. However, allergic reactions and photosensitivity have been reported and it can cause contact dermatitis. One case of excessive use possibly caused endocrine disruption in a nursing mother. A woman nursing her 10-month-old infant had drunk 200 mL of about a 10% aqueous extract of *Coriandrum sativa* (method of verification and possible presence of contaminants not stated) daily for 7 consecutive days to enhance her milk supply when she was admitted to the hospital with severe diarrhea and stomach pain. The patient had no abnormal serum or urine tests and recovered with palliative therapy. Fifteen days later the patient was complaining of skin darkness, depressed mood, a loss of body fluids, and amenorrhea, which was diagnosed as an adrenal dysfunction. The patient said that she did not have any history of such a condition. She was treated with adrenocorticoids and an oral contraceptive. She was well and healthy 10 days later.^[2] Elevated liver enzymes occurred in a woman taking Mother's Milk Tea, which contains coriander.^[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.

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Drug Levels

Maternal Levels. Twelve nursing mothers who were 19 weeks to 19 months postpartum ingested 100 mg of 1,8-cineole (eucalyptol) in the form of delayed-release capsules (Soledum-Klosterfrau Vertriebs GmbH, Germany) that release the drug in the intestine. Then they pumped 1 to 4 milk samples at the time they perceived the smell of eucalyptus on their breath which had been previously shown to be approximately concurrent. A total of 21 milk samples were obtained. Odor was rated by a panel of 3 to 5 experts as either smelling like eucalyptus or not. Fourteen of the samples had a distinct eucalyptus-like odor. Chemical analysis of the positive odor tests found 1,8-cineole in concentrations from 70 to about 2090 mcg/kg of milk, most in the range of 100 to 500 mcg/kg of milk. Samples with negative odor tests contained concentrations in the range of 0.98 to about 20.23 mcg/kg of milk. In one woman who donated 3 samples, the highest concentration of 71 mcg/kg occurred at 1.5 hours after ingestion, with concentrations of 1 mcg/kg before ingestion and 15 mcg/kg at 9.5 hours after ingestion.[5]

Eight women had their milk analyzed for 1,8-cineole metabolites. Ten metabolites and several enantiomers of these metabolites were detected.[6,7]

Eighteen nursing mothers who were nursing their infants of 8 to 53 weeks of age were served a curry dish that contained an average of 34.6 mg of linalool. Baseline linalool concentrations in milk averaged 0.22 mcg/L (range 0 to 1.1 mcg/L). Milk samples contained linalool in concentrations of 0.12 to 15.24 mcg/L at 1 hour after eating, 0.03 to 6.44 mcg/L at 2 hours after eating and 0.01 to 3.73 mcg/L at 3 hours after eating. In the same study, the curry dish contained an average of 394 mcg of 1,8-cineole. Baseline 1,8-cineole concentrations in milk averaged 1.44 mcg/L (range 0.07 to 7.57 mcg/L). Milk samples contained 1,8-cineole in concentrations of 0.19 to 7.41 mcg/L at 1 hour after eating, 0.33 to 7.86 mcg/L at 2 hours after eating and 0.22 to 3.33 mcg/L at 3 hours after eating.[8]

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

Effects in Breastfed Infants

Nursing mothers who were participating in an experiment on the excretion of 1,8-cineole (eucalyptol) in breastmilk took a 100 mg capsule of 1,8-cineole orally. Although instructed not to, 12 mothers breastfed their infants during the experiment. Mothers reported that none of their infants refused their milk or breastfed less than usual. Two mothers felt that their infants were more agitated a few hours after breastfeeding. A third mother reported that the infant stopped nursing from time to time and "looked puzzled", but resumed nursing. Upon repeating the experiment 6 weeks later, the infant did not react in an unusual way during breastfeeding.[5]

A small manufacturer-sponsored, double-blind, randomized study compared Mother's Milk tea (Traditional Medicinals, Sebastopol, CA) to lemon verbena tea in exclusively breastfeeding mothers with milk insufficiency. Each Mother's Milk tea bag contained 210 mg of coriander fruit as well as several other herbs. Mothers were instructed to drink 3 to 5 cups of tea daily. No differences were seen between groups in infant digestive, respiratory, dermatological, and other maternal-reported adverse events. No differences were seen in the growth parameters of the breastfed infants between the two groups.[9]

Effects on Lactation and Breastmilk

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

References

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Substance Identification

Substance Name

Coriander

Scientific Name

Coriandrum sativum

CAS Registry Number

84775-50-8

Drug Class

Breast Feeding

Lactation

Complementary Therapies

Food

Galactogogues

Phytotherapy

Plants, Medicinal