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NLM Citation: Drugs and Lactation Database (LactMed) [Internet]. Bethesda (MD): National Library of Medicine (US); 2006-. Bitter Orange. [Updated 2018 Dec 3].
Bookshelf URL: https://www.ncbi.nlm.nih.gov/books/

Bitter Orange

Revised: December 3, 2018.

Drug Levels and Effects

Summary of Use during Lactation

Bitter orange (Citrus aurantiu) fruit contains several adrenergic agonists, primarily p-synephrine, but also octopamine and tyramine, as well as numerous flavonoids. Bitter orange has no specific lactation-related uses, but high dosages are often used in weight-loss agents. No data exist on the excretion of any components of bitter orange into breastmilk or on the safety and efficacy of bitter orange in nursing mothers or infants. Bitter orange is "generally recognized as safe" (GRAS) as a food and flavoring by the U.S. Food and Drug Administration. High dosages of bitter orange are often combined with caffeine and other stimulants in weight loss products, and the combinations may cause cardiac stimulation. Because of the lack of information on high dosages used in supplements and because animal data indicate that the adrenergic agents in bitter orange might decrease milk production, it should probably be avoided by nursing mothers, especially while nursing a newborn or preterm infant.

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.

Drug Levels

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

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.

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 .

Effects on Lactation and Breastmilk

Relevant published information in humans was not found as of the revision date. However, animal data indicate that octopamine[1] decreases prolactin and might decrease milk production. Pseudoephedrine, a pharmacologically similar vasoconstrictor, decreases milk production in nursing mothers after oral use.[2]

References

1. Becu-Villalobos D, Thyssen SM, Rey EB et al. Octopamine and phenylethylamine inhibit prolactin secretion both in vivo and in vitro. Proc Soc Exp Biol Med. 1992;199:230-5. PubMed PMID: 1741415.
2. Aljazaf K, Hale TW, Ilett KF et al. Pseudoephedrine: effects on milk production in women and estimation of infant exposure via breastmilk. Br J Clin Pharmacol. 2003;56:18-24. PubMed PMID: 12848771.

Substance Identification

Substance Name

Bitter Orange

Scientific Name

Citrus aurantiu

Drug Class

Breast Feeding

Lactation

Complementary Therapies

Food

Phytotherapy

Plants, Medicinal