



Lemon Balm

Revised: April 19, 2021.

Drug Levels and Effects

Summary of Use during Lactation

Lemon balm (*Melissa officinalis*) contains a lemon-scented essential oil containing citronellal, neral, and geranial monoterpenoid aldehydes; polyphenolic compounds (including rosmarinic acid); and monoterpene glycosides. Lemon balm is a purported galactagogue, with some weak supporting evidence of galactagogue activity. No data exist on the excretion of any components of lemon balm into breastmilk or on the safety and efficacy of lemon balm in nursing mothers or infants. However, it has been safely and effectively used with other herbs in infants for the treatment of colic, diarrhea, and other conditions,[1,2] so the smaller amounts expected (but not demonstrated) in breastmilk are likely not to be harmful with usual maternal doses. Galactagogues should never replace evaluation and counseling on modifiable factors that affect milk production.[3,4] Lemon balm is "generally recognized as safe" (GRAS) as a food flavoring by the U.S. Food and Drug Administration. As a drug, it is generally well tolerated in adults with nausea, vomiting, abdominal pain, dizziness, and wheezing reported occasionally.

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.

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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Effects in Breastfed Infants

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

Effects on Lactation and Breastmilk

A randomized trial assigned mothers of preterm infants to receive either a purported herbal galactagogue tea twice daily, a fruit tea twice daily or nothing. The galactagogue tea mixture (Natal, Hipp [Turkey]) contained 1% stinging nettle as well as *Melissa*, caraway, anise, fennel, goat's rue, and lemon grass in unspecified amounts. All mothers received similar breastfeeding advice from the same nurse and two groups were told that the tea would increase milk production, but compliance with the study teas was not assessed. Mother used breast pumps to extract and measure their milk and output on day 1 and day 7 of the study were compared. Although the increase in volume of extracted milk was greater in the galactagogue tea group, there was no difference in maternal serum prolactin between the groups at 7 days. No difference in infant weight gain was seen between groups, although the authors stated that additional supplementation was provided to all infants in addition to the pumped milk.[5] The study was not blinded, the randomization method was not stated, intent-to-treat analysis was not performed, and some of the numerical results were internally inconsistent, so the quality of the study was poor.

A double-blind study compared a commercial galactagogue product (Femaltiker, Nutropharma Llc., Poland) containing barley malt, 70% barley glucan and powdered lemon balm (*Melissa officinalis*) leaves to an identical placebo in the mothers of preterm infants. Mothers took one packet twice a day for 2 weeks, starting within 3 days of delivery. Milk volume was measured by mothers after extraction using an electric breast pump. Forty mothers in each group completed the study. On day 14 of the study the mothers in the barley group produced more milk than the mothers taking placebo (average 62.5 mL vs 95 mL). The total milk volume over the 2-week period was also greater in the active group compared to the placebo group (average 6036 mL vs 4209 mL).[6] The study had a rather high dropout rate and the results were not subjected to intention-to-treat analysis.

References

1. Weizman Z, Alkrinawi S, Goldfarb D, et al. Efficacy of herbal tea preparation in infantile colic. *J Pediatr*. 1993;122:650–2. PubMed PMID: 8463920.
2. Savino F, Cresi F, Castagno E, et al. A randomized double-blind placebo-controlled trial of a standardized extract of *Matricariae recutita*, *Foeniculum vulgare* and *Melissa officinalis* (ColiMil) in the treatment of breastfed colicky infants. *Phytother Res*. 2005;19:335–40. PubMed PMID: 16041731.
3. Brodribb W. ABM Clinical Protocol #9. Use of galactagogues in initiating or augmenting maternal milk production, second revision 2018. *Breastfeed Med*. 2018;13:307–14. PubMed PMID: 29902083.
4. Breastfeeding challenges: ACOG Committee Opinion, Number 820. *Obstet Gynecol*. 2021;137:e42–e53. PubMed PMID: 33481531.
5. Özalkaya E, Aslandogdu Z, Ozkoral A, et al. Effect of a galactagogue herbal tea on breast milk production and prolactin secretion by mothers of preterm babies. *Niger J Clin Pract*. 2018;21:38–42. PubMed PMID: 29411721.
6. Wesolowska A, Pietrzak B, Kociszewska-Najman B, et al. Barley malt-based composition as a galactagogue - a randomized, controlled trial in preterm mothers. *Ginekol Pol*. 2021;92:118–25. PubMed PMID: 33751522.

Substance Identification

Substance Name

Lemon Balm

Scientific Name

Melissa officinalis

Drug Class

Breast Feeding

Lactation

Complementary Therapies

Phytotherapy

Plants, Medicinal