

U.S. National Library of Medicine National Center for Biotechnology Information **NLM Citation:** Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Barley. [Updated 2024 May 15]. **Bookshelf URL:** https://www.ncbi.nlm.nih.gov/books/



Barley

Revised: May 15, 2024.

Drug Levels and Effects

Summary of Use during Lactation

Barley (*Hordeum vulgare*) contains starch, dietary fiber such as beta-glucan, and the enzyme diastase. Barley is a purported galactogogue and is used by mothers in many cultures to increase their milk supply.[1-6] Some animal evidence indicates that a polysaccharide in barley can increase serum prolactin,[5,7,8] and one human study supports some galactogogue activity of barley malt and lemon balm in mothers of preterm infants.[9] Galactogogues should never replace evaluation and counseling on modifiable factors that affect milk production. [10,11] No data exist on the excretion of any components of barley into breastmilk or on the safety and efficacy of barley in nursing mothers or infants. Barley is safe to be consumed during breastfeeding, except by persons with celiac disease. Allergy to barley occurs rarely.

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.

Attribution Statement: LactMed is a registered trademark of the U.S. Department of Health and Human Services.

Effects on Lactation and Breastmilk

Studies in animals indicate that a polysaccharide found in barley is apparently responsible for an increase in prolactin after beer ingestion.[5,7,8] Refer to the LactMed record on Alcohol for details.

A double-blind study compared a commercial galactogogue 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).[9] The study had a rather high dropout rate and the results were not subjected to intention-to-treat analysis.

References

- 1. Chaudhuri RN, Ghosh BN, Chatterjee BN. Diet intake patterns of non-Bengali Muslim mothers during pregnancy and lactation. Indian J Public Health 1989;33:82-3. PubMed PMID: 2641755.
- 2. Yarnell E. Botanical medicine in pregnancy and lactation. Altern Complement Ther 1997;3 (April):93-100. doi:10.1089/act.1997.3.93
- 3. Scott CR, Jacobson H. A selection of international nutritional and herbal remedies for breastfeeding concerns. Midwifery Today Int Midwife 2005;75:38-9. PubMed PMID: 16320878.
- 4. Winterfeld U, Meyer Y, Panchaud A, et al. Management of deficient lactation in Switzerland and Canada: A survey of midwives' current practices. Breastfeed Med 2012;7:317-8. PubMed PMID: 22224508.
- 5. Sawadogo L, Thibault JF, Rouau X, et al. The lactogenic action of plant extracts. In, Martinet J, Houdebine LM, Herbert H, eds. Biology of lactation Paris Institut National de la Research Agrono 1999:553-64.
- 6. Erarslan ZB, Kültür S. Medicinal plants traditionally used to increase breast milk in Turkey: An ethnobotanical review. J Herbal Med 2024;44:100849. doi:10.1016/j.hermed.2024.100849
- 7. Sawagado L, Houdebine LM. Identification of the lactogenic compound present in beer. Ann Biol Clin (Paris) 1988;46:129-34. PubMed PMID: 3382062.
- 8. Koletzko B, Lehner F. Beer and breastfeeding. Adv Exp Med Biol 2000;478:23-8. PubMed PMID: 11065057.
- 9. 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.
- 10. Brodribb W. ABM Clinical Protocol #9: Use of galactogogues in initiating or augmenting maternal milk production, second revision 2018. Breastfeed Med 2018;13:307-14. PubMed PMID: 29902083.
- 11. Breastfeeding challenges: ACOG Committee Opinion, Number 820. Obstet Gynecol 2021;137:e42-e53. PubMed PMID: 33481531.

Substance Identification

Substance Name

Barley

Scientific Name

Hordeum vulgare; Hordeum distychum

Drug Class

Breast Feeding

Barley

Lactation

Milk, Human

Complementary Therapies

Food

Galactogogues

Phytotherapy

Plants, Medicinal