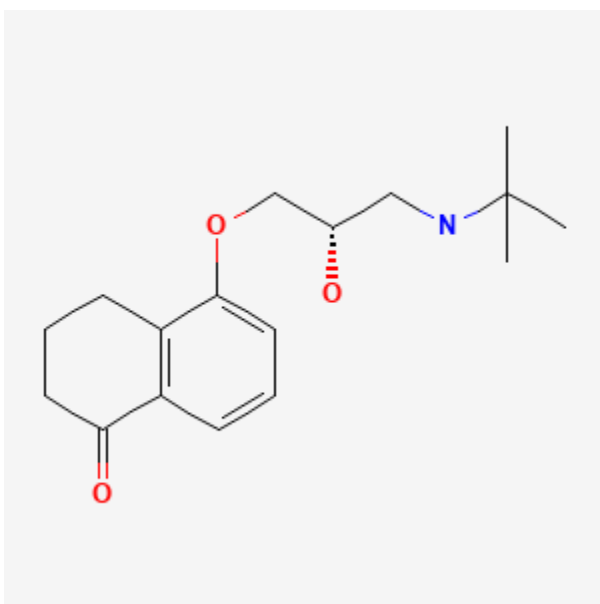




Levobunolol

Revised: September 20, 2021.

CASRN: 47141-42-4



Drug Levels and Effects

Summary of Use during Lactation

Based on its physicochemical properties and its ophthalmic route of administration, levobunolol appears to present a moderately low risk to the breastfed infant. Some guidelines state that gel formulations are preferred over solutions.[1,2] To substantially diminish the amount of drug that reaches the breastmilk after using eye drops, place pressure over the tear duct by the corner of the eye for 1 minute or more, then remove the excess solution with an absorbent tissue.

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

The excretion of beta-adrenergic blocking drugs into breastmilk is largely determined by their protein binding. Those with low binding are more extensively excreted into breastmilk.[3] Accumulation of the drugs in the infant is related to the fraction excreted in urine. With 78% renal excretion and a 6 to 9 hour half-life of the drug and active metabolites, levobunolol presents a moderate risk for accumulation in infants.

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

A study of mothers taking beta-blockers during nursing found a numerically, but not statistically significant increased number of adverse reactions in those taking any beta-blocker. Although the ages of infants were matched to control infants, the ages of the affected infants were not stated. None of the mothers were taking levobunolol.[4]

Effects on Lactation and Breastmilk

Relevant published information on the effects of beta-blockade or levobunolol during normal lactation was not found as of the revision date. A study in 6 patients with hyperprolactinemia and galactorrhea found no changes in serum prolactin levels following beta-adrenergic blockade with propranolol.[5]

Alternate Drugs to Consider

(Ophthalmic) [Metipranolol](#), [Timolol](#)

References

1. Belkin A, Chen T, DeOliveria AR, et al. A practical guide to the pregnant and breastfeeding patient with glaucoma. *Ophthalmol Glaucoma*. 2020;3:79–89. PubMed PMID: 32672600.
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3. Riant P, Urien S, Albengres E, et al. High plasma protein binding as a parameter in the selection of betablockers for lactating women. *Biochem Pharmacol*. 1986;35:4579–81. PubMed PMID: 2878668.
4. Ho TK, Moretti ME, Schaeffer JK, et al. Maternal beta-blocker usage and breast feeding in the neonate. *Pediatr Res*. 1999;45(4, pt. 2):67A–Abstract 385. doi: [10.1203/00006450-199904020-00402](https://doi.org/10.1203/00006450-199904020-00402).
5. Board JA, Fierro RJ, Wasserman AJ, et al. Effects of alpha- and beta-adrenergic blocking agents on serum prolactin levels in women with hyperprolactinemia and galactorrhea. *Am J Obstet Gynecol*. 1977;127:285–7. PubMed PMID: 556882.

Substance Identification

Substance Name

Levobunolol

CAS Registry Number

47141-42-4

Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Adrenergic Beta-Antagonists

Antiglaucoma Agents

Antiarrhythmics