

Breastfeeding and Medication



Eye Drops and Breastfeeding

Drug choice in a mother during breastfeeding based on evidence of benefit and safety for the baby:

According to maternal need

To minimise the absorption of any drug into the blood stream naso-lachrymal occlusion (pressing over the tear duct to close it off) as the drops are instilled can be applied.



Absorption of eye drops into breastmilk is unlikely in the majority of conditions:

- Local anaesthetic drops e.g. lignocaine;
- Antibacterial eye drops e.g. chloramphenicol, fusidic acid (Fucithalamic);
- Antiviral eye drops e.g. aciclovir (Zovirax®);
- Corticosteroid eye drops e.g. betamethasone (Betnesol®), prednisolone (Predsol®);
- Ocular lubricants e.g. hypromellose, carbomers.

- Anti-histamine eye drops for hayfever/allergy e.g. Sodium cromoglycate®

Compatible with use during breastfeeding due to poor bio-availability.

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June 2024 *The information on this sheet is based upon my professional experience as a pharmacist with a specialised interest in the safety of drugs in breastmilk, supported by evidence from expert sources. However, I cannot take responsibility for the prescription of medication which remains with the healthcare professionals involved. I am happy to discuss the evidence by email wendy@breastfeeding-and-medication.co.uk*

Eye Infections

Conjunctivitis treatment is one of the most commonly asked questions. Chloramphenicol drops can be sold over the counter by a pharmacist but in most cases this is outside of the product licence during breastfeeding. This does not imply risk only that the manufacturer has not conducted trials and accepts no responsibility. There is one reported case of bone toxicity but this was when the breastfeeding mother was taking the drug orally rather than using eye drops where absorption is lower. (<https://www.ncbi.nlm.nih.gov/books/NBK501494/>). Fucidic acid drops (Fucithalmic[®]) are preferred where possible but currently this requires a prescription.

Beta blocker eye drops

There is concern over the systemic absorption of beta blockers to treat glaucoma and consideration should be given if the baby suffers from asthma or heart disease and the mother alerted to the possibility, even if remote, of adverse reactions.

In a case report of a single mother (Lustgarten and Podos 1983) who used one drop of 0.5% timolol maleate, the authors estimated that use of 0.5% timolol drops in one eye twice daily gave the infant 0.63% of a cardiac dose. No side effects were reported.

Johnson *et al.* (2001) reported on one mother who used eye drops of timolol, dipivifrin, dorzolamide and brimonidine as well as oral acetazolamide. No apnoea or bradycardia was observed in the infant.

Compatible with use during breastfeeding, according to the results of limited studies.

References

- Johnson SM, Martinez M, Freedman S, Management of glaucoma in pregnancy and lactation, *Surv Ophthalmol*, 2001;45:449–54.
- Lustgarten JS, Podos SM, Topical timolol and the nursing mother, *Arch Ophthalmol*, 1983;101:1381–2.

Fluorescein ophthalmic solution

A 2% solution may be used to detect corneal abrasions, to fit contact lenses by direct application to the eye. It may also be used intravenously for fluorescein angiography. Maquire 1988 studied the breastmilk of a 29 year old mother who had an angiograph soon after delivering premature twins. She herself had lost central vision acutely soon after she gave birth. The fluorescein was detectable up to 76 hours after the procedure (half life 62 hours). The peak concentration measured at 6 hours was 372 µg/L. This represents a milk/plasma ratio would be about 0.018 (Hale 2017) representing a small risk to the breastfed infant.

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Maquire AM, Bennett J. Fluorescein elimination in human breast milk. Arch Ophthalmol 1988; 106(6):718-719.

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