

# Breastfeeding and Medication



## Antibiotics and Breastfeeding

Babies exposed to antibiotics through their mother's milk may become temporarily lactose intolerant exhibiting loose bowel motions, sometimes colicky pains and sometimes vomiting. This does not mean that breastfeeding needs to be interrupted as the mother will also be passing on antibodies to the infection that she has. It may, however, be distressing.

Some antibiotics effect babies more than others.

Some individual babies respond more acutely than others.

The table below shows the compatibility of commonly prescribed antibiotics with breastfeeding.

Antibiotics are acknowledged to be overused which is one of the reasons that Multiple Resistant Staphylococcus aureus (MRSA) and Clostridium difficile have become more widespread. It is sensible to consider whether a mother needs to be treated with antibiotics before exposing both her and her breastfed baby. Babies exposed to antibiotics via their mother's breastmilk may develop symptoms of colic, abdominal discomfort and diarrhoea. These are an inconvenience and not a reason to suspend breastfeeding.

Research undertaken in Canada in 1993 (Ito et al. 1993) showed that 15% of women prescribed antibiotics chose not to take the medicine and continue to breastfeed, rather than expose their baby to a risk which they had been assured was minimal. By contrast, 7% stopped breastfeeding during therapy despite reassurance. The research team also examined the reporting of adverse effects by mothers made aware of potential diarrhoea in the child with antibiotics passing through breastmilk. Although more women warned of side effects reported clinical effects which they had noted and judged to be due to the medication, than those not made aware, the difference is not statistically significant (87% compared with 68%). No difference in compliance with the antibiotic regimen or breastfeeding pattern, were noted between the two groups (Taddio et al. 1995).

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January 2022 *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](mailto:wendy@breastfeeding-and-medication.co.uk)*

Delayed prescriptions for antibiotics may be useful in minimising exposure of mother and child. These follow recommendations from the doctor that the 'infection' may be self-limiting but if symptoms develop further or fail to resolve in the following 48 hours, then the course of antibiotics should be taken. Little et al. have suggested restricting the use in the treatment of otitis media, upper respiratory infection and sore throat ((Little 2002; 2005; 1997) beginning the public health message about reducing the use of antibiotics. It may also be useful in the management of mastitis.

## References

- Abdellatif M e, Ghozy S, Kamel MG, Elawady SS Ghorab MMEAttia AW, Le Huyen TT, Duy DTVHirayama K, Huy NT. Association between exposure to macrolides and the development of infantile hypertrophic pyloric stenosis: a systematic review and meta-analysis. *Eur J Pediatr.* 2019 178(3):301-314.
- Hale T. Hale's medications & mothers' milk. 19th ed. New York, USA: : Springer Publishing 2021.
- Ito S, Koren G, Einarson TR, Maternal non compliance with antibiotics during breastfeeding, *Ann Pharmacother*, 1993;27(1):40–42.
- Ito S, Koren G, Einarson TR. Maternal Noncompliance with Antibiotics during Breastfeeding. *Ann Pharmacother* 1993;27:40–2. doi:10.1177/106002809302700110
- Jones W Breastfeeding and Medication Routledge 2018
- Jones W How to advise women on the safe use of medicines while breastfeeding *The Pharmaceutical Journal*, PJ, 2021, 306 (7949) <https://pharmaceutical-journal.com/article/ld/how-to-advise-women-on-the-safe-use-of-medicines-while-breastfeeding>
- LactMed <https://www.ncbi.nlm.nih.gov/books/NBK501922/>
- Little P, Delayed prescribing of antibiotics for upper respiratory tract infection, *BMJ*, 2005;331(7512):301.
- Little P, Gould C, Moore M, Warner G, Dunleavy J, Williamson I, Predictors of poor outcome and benefits from antibiotics in children with acute otitis media: pragmatic randomised trial, *BMJ*, 2002;325(7354):22
- Little P, Williamson I, Warner G, Gould C, Gantley M, Kinmonth AL, Open randomised trial of prescribing strategies in managing sore throat, *BMJ*, 1997;314:722.
- Taddio A, Ito S, Einarson TR, Leeder JS, Koren G, Effect of counselling on maternal reporting of adverse effects in nursing infants exposed to antibiotics through breastmilk, *Reprod Toxicol*, 1995;9(2):153–7.

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<b>Compatibility of antibiotics during lactation</b>		
<b>Penicillins</b>		
penicillin V, amoxicillin, co-amoxiclav, co-fluampicil, flucloxacillin		licensed for use in children
<b>Cephalosporins</b>		
cefaclor, cefalexin, cefadroxil, cefradine, cefuroxamine		licensed for use in children
<b>Macrolides</b>		
erythromycin, azithromycin, clindamycin, clarithromycin		Observe for pyloric stenosis in neonates but current evidence is that the risk is low.
<b>Aminoglycosides</b>		
Gentamycin:	oral bioavailability <1%	will only pass into milk in first few days
Vancomycin	oral bioavailability negligible	will only pass into milk in first few days
Teicoplanin	no studies but oral bioavailability low	licensed for use in children
<b>Quinolones</b>		
Ofloxacin	plasma protein binding 32%, oral bio-availability 98%, relative infant dose 3.1%	Avoid if possible because studies limited
Levofloxacin	enantiomer of ofloxacin, relative infant dose 10.5% - 17.2%.	Avoid if possible.
Moxifloxacin	no studies	Avoid if possible
Norfloxacin	no studies	Avoid if possible
Ciprofloxacin	plasma protein binding 40%, oral bio-availability 50-85%, relative infant dose 0.44% - 6.34%	Given directly to young rats causes a type of juvenile arthritis but not seen in the amount passing through breastmilk. Chelated by calcium in milk, Avoiding breastfeeding for 3 to 4 hours after a dose. Use only if no other antibiotic is suitable
<b>Tetracyclines</b>		
Doxycycline		weeks as chelated by calcium in milk, avoid long term use
Tetracycline, lymecycline, oxytetracycline		avoid long term use
<b>Other antibiotics</b>		
Trimethoprim	relative infant dose 3.9-9%.	Licensed for paediatric use.
Nitrofurantoin		Licensed for paediatric use. Use with care in G6PD-deficient infants (rare).
Metronidazole	plasma protein binding <20%, oral bio-availability complete, relative infant dose 12.6-13.5%	Studies show no untoward effects at a dose of 200-400mg three times a day. Said to alter taste of milk
Meropenem	oral bioavailability nil	will only pass into milk in first few days

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