

# Antibiotics and Breastfeeding

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**The use of antibiotics does not generally necessitate suspension or cessation of breastfeeding.**

Antibiotics are generally prescribed more sparingly than they were in the past in the light of increasing evidence of lack of benefit in self-limiting conditions and increased resistance in some organisms. Antibiotics are not appropriate in viral conditions such as the majority of coughs and colds. However, there are times when their use is important and even lifesaving. The use of antibiotics to treat mastitis is discussed in the BfN leaflet Breastfeeding and Mastitis.

Choice of antibiotic to treat any condition depends primarily on the organism likely to be causing the symptoms, taking into account any previous allergies e.g. rash in response to penicillin.

Most antibiotics can produce excessively loose motions in the baby, with the appearance of diarrhoea. Some infants appear more unsettled with tummy aches or colic. These effects are not clinically significant and do not require treatment. The value of continued breastfeeding outweighs the temporary inconvenience. In theory exposure may sensitise the baby to later doses e.g. penicillin allergy but this is exceedingly rare. Large doses of antibiotics may encourage overgrowth of thrush (candida) in the mother by killing all the natural gut bacteria. Many women find taking supplements of acidophilus or live yoghurt beneficial to redress the balance. Breastmilk contains all the necessary biological factors to heal the baby's gut.

The following antibiotics are all safe to take whilst breastfeeding;

- Amoxicillin, Amoxil®,
- Azithromycin, Zithromax®,
- Cefaclor, Distaclor®,
- Cefuroxime, Zinnat®,
- Cephalexin, Cefalexin, Keflex®,
- Cephadrine, Velosef®,
- Clarithromycin, Klaricid®,
- Co-amoxiclav, Augmentin®,
- Co-fluampicil, Flucloxacillin + Ampicillin, Magnapen®
- Erythromycin, Erymax®, Erythrope®, Erythrocin®
- Flucloxacillin, Floxapen®,
- Penicillin V, Phenoxymethyl penicillin
- Pivmecillinam, Selexid®
- Trimethoprim, Monotrim®,

**To talk to a mum who knows about breastfeeding call the National Breastfeeding Helpline 0300 100 0212**

*Calls to 0300 numbers cost no more than calls to UK numbers starting 01 and 02 and will be part of any inclusive minutes that apply to your provider and call package.*

All are available as liquid forms to treat infant infections.

## Intra-venous antibiotics

Some antibiotics e.g. **gentamycin**, **meropenem** are given intra-venously as they poorly absorbed from the gut. Any drug passing into breastmilk is therefore unlikely to be absorbed in sufficient quantities by the baby and there is no need to cease breastfeeding on safety grounds. However, the mother may not feel well enough to breastfeed or may need the baby to be cared for by another adult and brought to her for feeding.

## Tetracyclines

It was believed in the past that tetracycline antibiotics were contra-indicated in breastfeeding because they could stain the infant's teeth (even if they had not appeared). In short courses (less than a month) this appears not to be a problem as the drug forms a complex with the calcium in the milk and is not absorbed by the baby. Long courses e.g. for acne should be avoided wherever possible.

The drugs in this family are:

- Tetracycline
- Oxytetracycline
- Minocycline (Minicin®)
- Doxycycline (Vibramycin®)
- Lymecline (Tetralysal ®)

## Metronidazole

Metronidazole (Flagyl®) has been said to impart an unpleasant taste to the milk and cause the baby to reject it. It has not been possible to trace the original research which suggested this or who tasted the milk and made this conclusion. Babies do not appear to be concerned by the frequent variation in the taste of breastmilk which occurs naturally. Occasionally it can alter the colour of the milk. In the US single doses of 2g are used and breastfeeding is temporarily interrupted. In the UK doses of 200-400milligrammes three times a day are used and breastfeeding can continue. Intra-venous use does not appear to pose any difficulties in lactation.

The concentration in milk following an oral dose 400milligrammes three times daily produced milk levels of 15.52 µg/ml and 200milligrammes three times a day an equivalent dose to the infant of 3milligrammes/kg/day compared to the dose of 22.5milligrammes/kg/day given therapeutically to children. Anecdotally increased maternal consumption of garlic masks the taste of the Metronidazole.

## Other antibiotics

- **Ciprofloxacin** (Ciproxin®) can cause problems in the joints of juvenile animals exposed to it. The relevance to breastfeeding is unknown, and short maternal courses are unlikely to pose problems, other antibiotics are preferable e.g. trimethoprim or nitrofurantoin as first line for simple urinary tract infection.
- **Nitrofurantoin** (Furadantin®, Macrochantin®) - only small amounts are excreted into breastmilk but may cause haemolysis in G6PD deficient infants (a comparatively rare condition involving enzyme deficiency). It may colour the mother's urine, tears and milk yellow. This is not significant.
- **Vancomycin and teicoplanin** are used to treat multiple resistant staphylococcus aureus (MRSA). The side effects of these drugs are potentially severe and their use requires blood counts, kidney and liver function tests. Use to treat MRSA is generally given by intra-venous and intra-muscular absorption. The British National Formulary (BNF) states that oral absorption is poor but there is little information on use in lactation and studies of milk transfer.

- **Clindamycin** is available as a tablet and vaginal gel. The tablets have rarely produced antibiotic-associated colitis in breastfed babies (one reported case) and babies exposed should be observed for blood in faeces. Vaginal application is unlikely to produce adverse effects in babies although 30% is absorbed into milk.
- **Co-trimoxazole (Septrin®, Bactrim®)** is a combination of 2 drugs: trimethoprim and sulphamethoxazole. It is used less commonly than it was in the past because of unwanted adverse effects and that single antibiotics were deemed more effective and therefore preferable. The combination drug has very specific indications for adults and children and is not prescribed routinely. Co-trimoxazole should not be prescribed to a breastfeeding mother in the first 6 weeks after birth, where there is a possibility of G6PD deficiency or if the baby is still jaundiced. Both sulphamethoxazole and trimethoprim are secreted into breastmilk in low levels and in situations outside those mentioned above breastfeeding can continue as normal

## Topical antibacterial agents

There is no evidence that topical anti-infective creams, ointments and gels are sufficiently absorbed to pass into breastmilk. If they are applied to the nipple any visible product should be gently wiped off prior to breastfeeding.

- **Fusidic Acid**, (Fucidin®)
- **Mupirocin**, (Bactroban®)

## Bibliography

- British National Formulary, Pharmaceutical Press, London
- E lactancia <https://www.e-lactancia.org/breastfeeding/trimethoprim-sulfamethoxazole-tmp-smx-tmp-smz/product/>
- Hale T, Ilett KF, 2002, *Drug Therapy and Breastfeeding*, Parthenon, London
- Hale T. 1999, *Clinical Therapy in Breastfeeding Patients* (1st Edition); Pharmasoft, Texas
- Hale T. *W Medications in Mothers Milk*
- Jones W *Breastfeeding and Medication* 2<sup>nd</sup> Ed. Routledge 2018
- LactMed <https://www.ncbi.nlm.nih.gov/books/NBK501289/>
- Merewood A, Philipp BL, 2001, *Breastfeeding Conditions and Diseases* (1st Edition), Pharmasoft, Texas