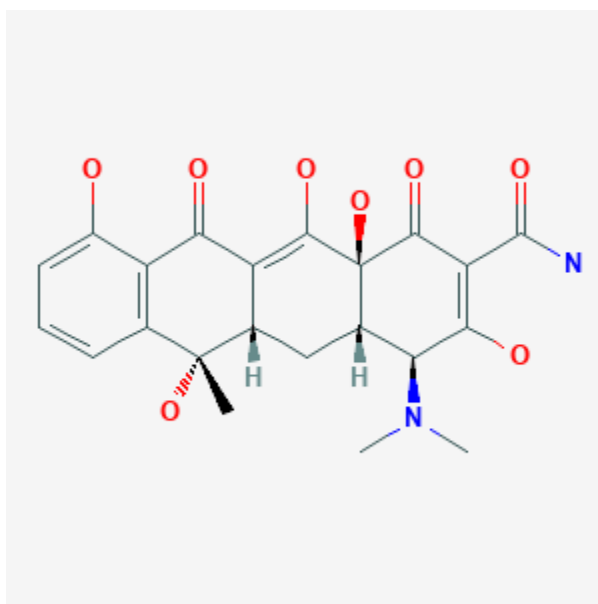




Tetracycline

Revised: October 31, 2018.

CASRN: 60-54-8



Drug Levels and Effects

Summary of Use during Lactation

A number of reviews have stated that tetracycline is contraindicated during breastfeeding because of possible staining of infants' dental enamel or bone deposition of tetracyclines. However, a close examination of available literature indicates that there is not likely to be harm in short-term use of tetracycline during lactation because milk levels are low and absorption by the infant is inhibited by the calcium in breastmilk. Short-term use of tetracycline is acceptable in nursing mothers. As a theoretical precaution, avoid prolonged or repeat courses during nursing. Monitor the infant for rash and for possible effects on the gastrointestinal flora, such as diarrhea or candidiasis (thrush, diaper rash).

Drug Levels

Maternal Levels. In a study using a microbiologic assay, milk tetracycline levels were in an unspecified number of nursing mothers at 9 am after various dosages of tetracycline during the previous days. Whether they had mastitis and the time postpartum were not stated. Milk levels increased to 2.5 mg/L after a daily dose of 1 gram orally for 3 days. Milk levels increased to 2 mg/L after a daily dose of 1.5 grams orally for 2 days. Milk levels increased to 2.5 mg/L after a daily dose of 2 grams orally for 3 days.[1]

Five women were given oral tetracycline 500 mg 4 times a day for 3 days. Milk levels ranged from 0.43 to 2.58 mg/L (times not specified).[2]

After a single dose of 150 mg of tetracycline orally in 2 women, milk levels of tetracycline averaged 0.7 mg at 2 and 6 hours after the dose and had an average peak of 0.8 mg/L 4 hours after the dose.[3]

Infant Levels. Five women were given oral tetracycline 500 mg 4 times a day for 3 days. Their infants were allowed to nurse and tetracycline was undetectable (<50 mcg/L) in the infants' serum.[2]

Effects in Breastfed Infants

No adverse effects were noted in an unspecified number of breastfed infants whose mothers were taking oral tetracycline 1, 1.5 or 2 grams daily for 3 days. Ages of the infants and extent of breastfeeding were not stated.[1] In one study, 5 infants breastfed during maternal therapy with tetracycline 500 mg 4 times daily with no adverse effects observed.[2]

In an observational study of 251 women, 23.8% of nursing mothers received tetracycline during breastfeeding. No gross adverse effect occurred in any of the breastfed infants.[4]

Although it is often stated that tetracyclines are to be avoided during lactation because of tooth staining, this adverse effect has never been reported after exposure via breastmilk. Milk calcium may inhibit absorption of the small amounts of tetracyclines in milk.

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

Alternate Drugs to Consider

[Doxycycline](#)

References

1. Gruner JM. [The excretion of terramycin and tetracycline in human milk]. *Geburtshilfe Frauenheilkd.* 1955;15:354-60. PubMed PMID: 14380696.
2. Posner AC, Prigot A, Konicoff NG. Further observations on the use of tetracycline hydrochloride in prophylaxis and treatment of obstetric infections. *Antibiot Annu.* 1955-1956;594-8. PubMed PMID: 13355291.
3. Matsuda S. Transfer of antibiotics into maternal milk. *Biol Res Pregnancy.* 1984;5:57-60. PubMed PMID: 6743732.
4. Prakash O, Mathur GP et al. Drug exposure in pregnant and lactating mothers in periurban areas. *Indian Pediatr.* 1990;27:1301-2. PubMed PMID: 2093678.

Substance Identification

Substance Name

Tetracycline

CAS Registry Number

60-54-8

Drug Class

Breast Feeding

Lactation

Anti-Infective Agents

Antibacterial Agents

Tetracyclines