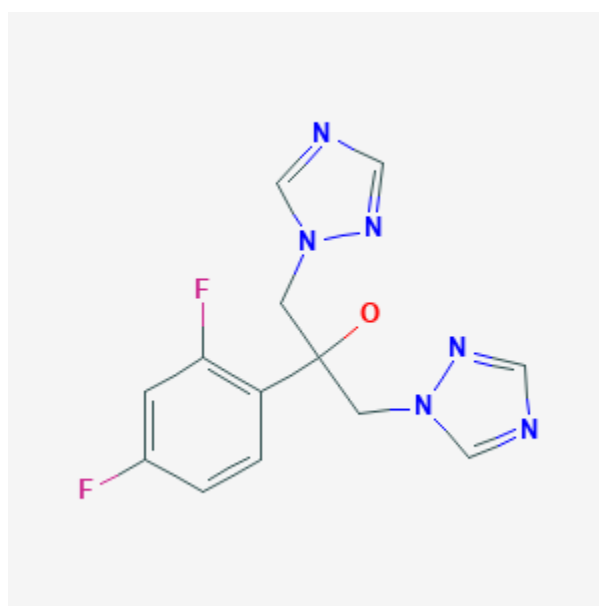




## Fluconazole

Revised: October 31, 2018.

CASRN: 86386-73-4



## Drug Levels and Effects

### Summary of Use during Lactation

Fluconazole is acceptable in nursing mothers because amounts excreted into breastmilk are less than the neonatal fluconazole dosage.[1] Although no adequate clinical studies on fluconazole in *Candida* mastitis have been published, a survey of members of the Academy of Breastfeeding Medicine found that fluconazole is often prescribed for nursing mothers to treat breast candidiasis, especially with recurrent or persistent infections.[2] Treatment of the mother and infant simultaneously with fluconazole is often used when other treatments fail.[2] [3][4][5] The most common maternal dosage regimen is 400 mg once, followed by 200 mg daily for at least 2 weeks or until pain is resolved,[6][7] although a study in Australia used a dose of 150 mg every other day until breast pain resolved.[8] The dosage of fluconazole in breastmilk with these maternal dosages is not sufficient to treat oral thrush in the infant.

**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.

**Attribution Statement:** LactMed is a registered trademark of the U.S. Department of Health and Human Services.

## Drug Levels

*Maternal Levels.* A woman taking fluconazole 200 mg orally once daily for 18 days had a peak milk level of 4.1 mg/L 2 hours after the dose on day 20 postpartum. The half-life of elimination from breastmilk was 26.9 hours. [9]

A 12-week postpartum woman was given a single oral dose of fluconazole 150 mg. The highest milk levels were 2.9 and 2.7 mg/L at 2 and 5 hours after the dose. Milk fluconazole levels were 1.8 and 1 mg/L at 24 and 48 hours after the dose, respectively. The half-life in milk was about 30 hours.[10]

Using peak milk level data from these two patients, an exclusively breastfed infant whose mother was taking 200 mg daily of fluconazole would receive a maximum of about 0.6 mg/kg daily, which is 60% of the recommended neonatal (<2 weeks) dosage and 20% of the dosage used in older infants for oral thrush.

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

## Effects in Breastfed Infants

In a study of fluconazole for treatment of lactation-associated thrush of the breasts, mothers took an average of 7.3 capsules (range 1 to 29 capsules) of 150 mg every other day until pain resolved. Seven of the 96 women reported side effects possibly caused by fluconazole in their breastfed infants. These included flushed cheeks, gastrointestinal upset, and runny or mucous stools.[8]

## Effects on Lactation and Breastmilk

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

## Alternate Drugs to Consider

Clotrimazole, Miconazole

## References

1. Kaplan YC, Koren G, Ito S et al. Fluconazole use during breastfeeding. *Can Fam Phys.* 2015;61:875-6. PubMed PMID: 26759844.
2. Brent NB. Thrush in the breastfeeding dyad: results of a survey on diagnosis and treatment. *Clin Pediatr (Phila).* 2001;40:503-6. PubMed PMID: 11583049.
3. Bodley V, Powers D. Long-term treatment of a breastfeeding mother with fluconazole-resolved nipple pain caused by yeast: a case study. *J Hum Lact.* 1997;13:307-11. PubMed PMID: 9429366.
4. Chetwynd EM, Ives TJ, Payne PM et al. Fluconazole for postpartum candidal mastitis and infant thrush. *J Hum Lact.* 2002;18:168-71. PubMed PMID: 12033079.
5. Betzold CM. Results of microbial testing exploring the etiology of deep breast pain during lactation: A systematic review and meta-analysis of nonrandomized trials. *J Midwifery Womens Health.* 2012;57:353-64. PubMed PMID: 22758357.
6. Hanna L, Cruz SA. Candida mastitis: a case report. *Perm J.* 2011;15:62-4. PubMed PMID: 21505621.
7. Heller MM, Fullerton-Stone H, Murase JE. Caring for new mothers: diagnosis, management and treatment of nipple dermatitis in breastfeeding mothers. *Int J Dermatol.* 2012;51:1149-61. PubMed PMID: 22994661.
8. Moorhead AM, Amir LH, O'Brien PW, Wong S. A prospective study of fluconazole treatment for breast and nipple thrush. *Breastfeed Rev.* 2011;19:25-9. PubMed PMID: 22263374.
9. Schilling CG, Seay RE, Larson TA et al. Excretion of fluconazole in human breast milk. *Pharmacotherapy.* 1993;13:287. Abstract. DOI: 10.1002/j.1875-9114.1993.tb02736.x
10. Force RW. Fluconazole concentrations in breast milk. *Pediatr Infect Dis J.* 1995;14:235-6. PubMed PMID: 7761190.

## **Substance Identification**

### **Substance Name**

Fluconazole

### **CAS Registry Number**

86386-73-4

### **Drug Class**

Breast Feeding

Lactation

Antifungal Agents