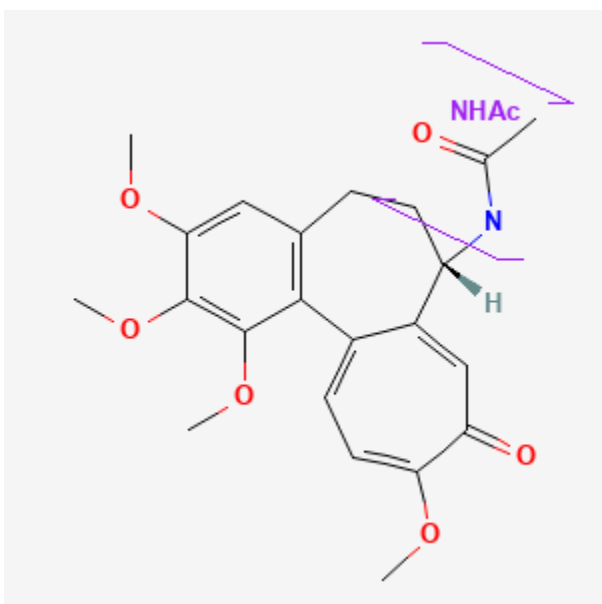




## Colchicine

Revised: October 15, 2023.

CASRN: 64-86-8



## Drug Levels and Effects

### Summary of Use during Lactation

Long-term prophylactic maternal doses of colchicine up to 1.5 mg daily produce levels in milk that result in the infant receiving less than 10% of the maternal weight-adjusted dosage. The highest milk levels occur 2 to 4 hours after a dose, so avoiding breastfeeding during this time can minimize the infant dose, although some clinicians simply recommend taking the drug after nursing. No adverse effects in breastfed infants have been reported in case series and a case-control study and many experts and professional guidelines consider colchicine safe during breastfeeding in women being treated for familial Mediterranean fever or rheumatic conditions.[1-5]

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## Drug Levels

*Maternal Levels.* A woman receiving long-term oral colchicine 0.6 mg daily had milk levels of colchicine measured 5 times between 16 and 21 days postpartum. Twice, colchicine was undetectable (<0.5 mcg/L) in milk 40 minutes after a dose. On other occasions, milk colchicine levels were 1.2 mcg/L 40 minutes after a dose, 2.5 mcg/L 50 minutes after a dose and 1.7 mcg/L 55 minutes after a dose.[6]

A woman taking colchicine 1 mg orally once daily had breastmilk colchicine levels of 31 mcg/L at 2 hours after a dose and 24 mcg/L 4 hours after the dose on day 5 postpartum; and 27 mcg/L at 4 hours after the dose and 10 mcg/L at 7 hours after the dose on day 15 postpartum. Using the maximum milk level, the authors estimated that an exclusively breastfed infant would receive 10% of the maternal weight-adjusted dosage in the 8 hours after a dose. They suggested giving colchicine at nighttime and not nursing for 8 hours to minimize infant colchicine exposure.[7]

Four women were receiving long-term colchicine therapy 1 to 1.5 mg once daily. Milk samples were taken before and 1, 3 and 6 hours after a colchicine dose on days 4, 6, 21 and 58 of nursing, respectively, in the 4 women. Colchicine was detectable in all milk samples, including the 24-hour predose samples which were less than 1 mcg/L. Peak milk levels occurred 1 hour after the dose in 3 women and 3 hours after the dose in the fourth. Peak milk levels ranged from 1.98 and 8.6 mcg/L. At 6 hours after the dose, milk levels ranged from 0.87 and 2.57 mcg/L. Although the authors did not specify which mothers were taking which dose, milk levels were much higher (>1.5 times higher) in the mothers who were 4 and 6 days postpartum compared to those who were 21 and 58 days postpartum. Using the highest measured milk levels, the authors estimated that an exclusively breastfed infant would receive 1.2 mcg/kg daily or less than 10% of an adult colchicine dose.[1]

*Infant Levels.* Colchicine was undetectable (<5 mcg/L) in 12-hour urine samples taken from a breastfed infant at 5 and 15 days of age whose mother was taking 1 mg of colchicine once daily.[7]

## Effects in Breastfed Infants

In 4 infants whose mothers were taking 1 to 1.5 mg of colchicine daily prophylactically for familial Mediterranean fever, no apparent effects were noted on clinical follow-up over at least 10 months. The authors also reported that they recalled another 6 women who breastfed their infants for at least 3 months during colchicine therapy (dosage not stated) and follow-up for at least 2 years revealed no clinical or developmental problems.[1]

An infant was breastfed (extent not stated) for 6 months during maternal intake of colchicine 0.6 mg twice daily. No apparent adverse effects were noted.[6]

In a study of mothers who took colchicine during pregnancy, 111 of 181 mothers reported breastfeeding (extent not stated) their infants. None of the infants reportedly had colchicine-related adverse effects.[8]

A case-control study compared 37 women who took colchicine during breastfeeding their 38 infants to a matched control group of 75 mothers who had taken amoxicillin, but were unexposed to colchicine, and their 76 breastfed infants. Telephone follow-up occurred at 6 to 48 months (average 28 months) after the initial inquiry. Among the colchicine-exposed group, 76% of infants were exclusively breastfed and the mean overall duration of breastfeeding was 9.1 months. No increased risk of adverse effects was noted in the colchicine-exposed infants compared to the control infants. Specifically, no differences in gastrointestinal symptoms, or growth and development parameters were seen.[3]

Ten nursing mothers who were being treated with colchicine were reported. None of them had any pathology reported.[9]

A woman was treated with anakinra 100 mg subcutaneously and oral colchicine 1 mg twice daily during pregnancy and postpartum for familial Mediterranean fever while she breastfed her infant (extent not specified). At 9 months of age, the infant's development was within normal range. The routine vaccination schedule for the baby was being performed on time and there was no history of infection in the infant.[10]

A woman with recurrent pericarditis was treated with subcutaneous anakinra 100 mg once weekly beginning in the fifth month of pregnancy and continuing postpartum. She also took colchicine 0.5 mg daily. She delivered twins by cesarean section at 36 weeks of gestation and breastfed (extent not stated) her infants up to 18 months of age. No health problems were noted in the infants up to 18 months of age.[11]

## Effects on Lactation and Breastmilk

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

## Alternate Drugs to Consider

Ibuprofen, Indomethacin

## References

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## Substance Identification

### Substance Name

Colchicine

## CAS Registry Number

64-86-8

## Drug Class

Breast Feeding

Lactation

Milk, Human

Antigout Agents

Antimitotic Agents

Gout Suppressants