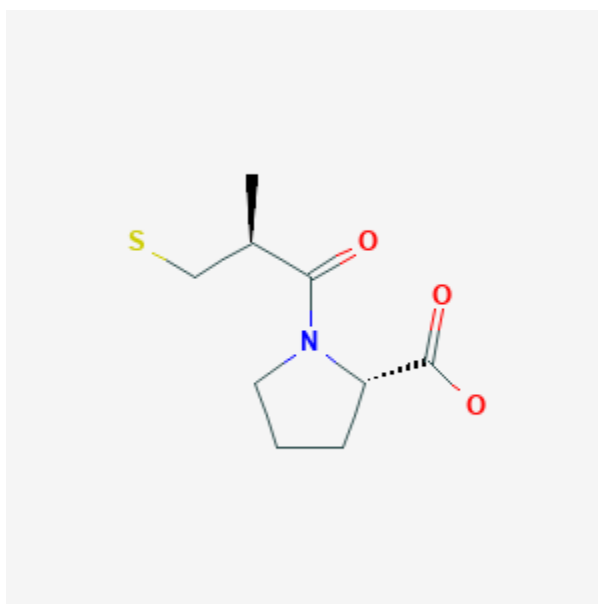




Captopril

Revised: June 3, 2019.

CASRN: 62571-86-2



Drug Levels and Effects

Summary of Use during Lactation

Because of the low levels of captopril in breastmilk, amounts ingested by the infant are small and would not be expected to cause any adverse effects in breastfed infants.

Drug Levels

Maternal Levels. The average peak milk level in 11 subjects (time postpartum not stated) taking oral captopril 100 mg 3 times daily was 4.7 mcg/L and occurred 3.8 hours after the dose. The peak milk level was about 1% of the peak plasma level, while average milk levels over 12 hours following a dose were about 3% of average serum

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levels.[1] Based on data in this study, the maximum daily dosage that a nursing infant would receive is less than 0.014% of the mother's weight-adjusted daily dosage.

There was no evidence of disulfide captopril metabolites in the breastmilk of a woman (time postpartum not stated) taking the drug chronically.[2]

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

Effects in Breastfed Infants

In one report of 12 mothers, several continued to breastfeed their infants while taking captopril 100 mg three times daily. No adverse effects were seen in the infants.[1]

A woman was diagnosed with Cushing's disease during pregnancy. Postpartum she took metyrapone 250 mg 3 times daily, bisoprolol 10 mg twice daily, and captopril 12.5 mg twice daily. She breastfed her preterm infant about 50% milk and 50% formula. At 5 weeks postpartum, the infant's pediatric team found his growth and development to be appropriate.[3]

Effects on Lactation and Breastmilk

In a series of controlled studies reported in one paper, captopril had no effect on the circadian rhythm of prolactin, the response to prolactin-stimulating drugs or serum prolactin in patients with prolactin-secreting tumors.[4]

In a study of young hypertensive males, captopril 25 mg orally markedly decreased serum prolactin at 90 minutes after the dose compared to placebo.[5] The maternal prolactin level in a mother with established lactation may not affect her ability to breastfeed.

In one report, 1 woman out of 12 subjects was unable to produce enough milk for the study while taking captopril 100 mg 3 times daily even though she had been successfully breastfeeding for 6 months.[1] It is not known if this decrease was an effect of captopril.

Alternate Drugs to Consider

Benazepril, Enalapril, Quinapril

References

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3. Duke ME, Britten FL, Pretorius CJ et al. Maternal metyrapone use during breastfeeding: Safe for the breastfed infant. *J Endocr Soc.* 2019;3:973-8. PubMed PMID: 31041428.
4. Denolle T, Rohmer V, Saint-Adre JP et al. Effect of the circulating renin-angiotensin system on prolactin release in humans. *J Clin Endocrinol Metab.* 1990;70:288-92. PubMed PMID: 2104627.
5. Saito I, Takeshita E, Hayashi S et al. Effect of captopril on plasma prolactin in patients with essential hypertension. *Angiology.* 1990;41(5):377-81. PubMed PMID: 2192585.

Substance Identification

Substance Name

Captopril

CAS Registry Number

62571-86-2

Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Angiotensin-Converting Enzyme Inhibitors

ACE Inhibitors

ACEIs