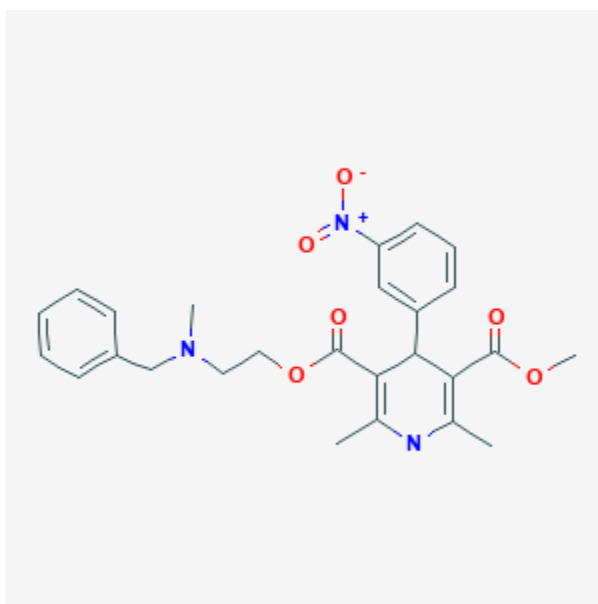




## Nicardipine

Revised: October 31, 2018.

CASRN: 55985-32-5



## Drug Levels and Effects

### Summary of Use during Lactation

Because of the low levels of nicardipine in breastmilk, amounts ingested by the infant are small and would not be expected to cause any adverse effects in breastfed infants. No special precautions are required.

### Drug Levels

*Maternal Levels.* Ten women were treated with oral nicardipine 4 to 14 days postpartum. Four received an immediate-release product 40 to 80 mg daily, and 6 received a sustained-release product 100 to 150 mg daily. Another woman received intravenous nicardipine 120 mg daily. The authors calculated that the infants received an average of 0.073% of the maternal weight-adjusted dose with the oral dosage and 0.14% of the maternal weight-adjusted dose with the intravenous dosage. They estimated that the average dosage that an infant would receive is about 0.3% of the projected infant dosage.[1]

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Seven women received intravenous infusions of nicardipine for an average of 1.9 days in the immediate postpartum period as therapy for pre-eclampsia. Thirty-four milk samples were obtained at unspecified times; nicardipine was undetectable (<5 mcg/L) in 82% of samples. Four women receiving 1 to 6.5 mg/hour of nicardipine had 6 milk samples with detectable nicardipine ranging from 5.1 to 18.5 mcg/L. The highest concentration of 18.5 mcg/L was found in a woman receiving 5.5 mg/hour of nicardipine. The authors estimated that the maximum dose that could be received by a breastfed infant was less than 0.3 mcg daily or between 0.015 to 0.004% of a therapeutic dose in a 1 kg infant.[2]

Eighteen women with severe preeclampsia were given continuous infusion of nicardipine to control their blood pressure during pregnancy and postpartum. Blood and breastmilk samples were taken between 2 and 7 days postpartum from 17 of the women. The median postpartum nicardipine dosage was 0.54 mg/kg daily (mean 0.26 mg/kg daily; range 0.43 to 1.63 mg/kg daily). The median breastmilk nicardipine concentration in milk was 4.7 mcg/L (mean 6.9 mcg/L; range 2.3 to 37.7 mcg/L). Milk nicardipine levels were proportional to maternal plasma levels. The median weight-adjusted percentage of the maternal dose was 0.045% (mean 0.08%; range 0.006 to 0.33%).[3]

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

## Effects in Breastfed Infants

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

## Effects on Lactation and Breastmilk

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

## Alternate Drugs to Consider

Nifedipine

## References

1. Jarreau PH, Le Beller C, Guillonnet M, Jacqz-Aigrain E. Excretion of nicardipine in human milk. *Paediatr Perinat Drug Ther.* 2000;4:28-30.
2. Bartels P, Hanff L, Mathot R et al. Nicardipine in pre-eclamptic patients: Placental transfer and disposition in breast milk. *BJOG.* 2006;114:230-3. PubMed PMID: 17166219.
3. Matsumura H, Takagi K, Seki H et al. Placental transfer of intravenous nicardipine and disposition into breast milk during the control of hypertension in women with pre-eclampsia. *Hypertens Pregnancy.* 2014;33:93-101. PubMed PMID: 24131296.

## Substance Identification

### Substance Name

Nicardipine

### CAS Registry Number

55985-32-5

### Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Calcium Channel Blockers

Vasodilator Agents