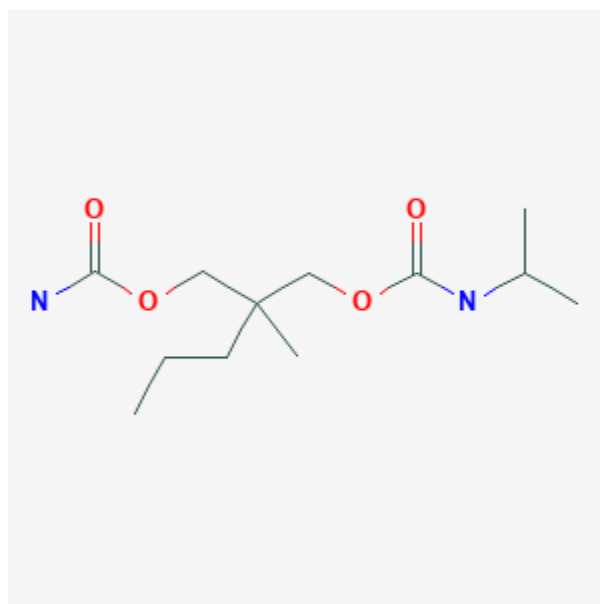




## Carisoprodol

Revised: October 31, 2018.

CASRN: 78-44-4



## Drug Levels and Effects

### Summary of Use during Lactation

If carisoprodol is required by the mother, it is not necessarily a reason to discontinue breastfeeding. Slight sedation has occurred in a breastfed newborn infant who was exposed during pregnancy and lactation; sedation might be more pronounced in newborns who are exposed for the first time during nursing. Other agents may be preferred, especially while nursing a newborn or preterm infant, or when other drugs that can cause sedation are used simultaneously.

### Drug Levels

Carisoprodol is metabolized almost entirely to meprobamate which contributes to the overall sedative effect. Carisoprodol has a half-life of 4 hours and meprobamate has a half-life of about 10 hours.[1]

*Maternal Levels.* A mother was taking carisoprodol 700 mg three times daily during pregnancy and lactation. Maternal trough breastmilk levels of carisoprodol and meprobamate were measured before the first morning dose on 4 consecutive days at steady-state (time postpartum not stated). Average minimum breastmilk levels were 0.9 mg/L for carisoprodol and 11.6 mg/L for meprobamate. The authors calculated that the minimum infant dose of the drug plus metabolite was 1.9 mg/kg daily or 4.1% of the maternal weight-adjusted dosage. Extrapolating these results to an average (rather than minimum) dose, the authors estimated that an exclusively breastfed infant would receive 3 mg/kg daily or 6% of the maternal weight-adjusted dosage.[1]

A woman who was suspected to have been abusing carisoprodol had the drug and meprobamate detectable in breastmilk for 2 consecutive days after hospitalization; only meprobamate was detectable on day 3.[2]

A woman took carisoprodol 700 mg orally four times daily at 4- to 6-hour intervals during pregnancy and lactation for spasms of the back muscles. At 1 week postpartum, breastmilk samples were obtained 2 and 3.5 hours after doses of the drug. Two hours after a dose, carisoprodol concentration in milk was 1.4 mg/L and meprobamate was 10.9 mg/L. At 3.5 hours after the following dose, carisoprodol concentration in milk was 0.8 mg/L and meprobamate was 17.1 mg/L. The authors estimated that the maximum intake of carisoprodol plus meprobamate was 2.7 mg/kg daily or 6.9% of the maternal weight-adjusted dosage.[3]

*Infant Levels.* A mother took carisoprodol 700 mg orally four times daily at 4- to 6-hour intervals during pregnancy and lactation. At 1 week postpartum, her exclusively breastfed infant had unmeasurable serum concentrations of carisoprodol (<2 mg/L) and meprobamate (<4 mg/L) 2 hours after nursing (3.5 hours after the mother's previous dose). The investigators hypothesized that either the dose received by the infant was low or the infant's metabolism of the drugs may have been stimulated from the exposure during pregnancy.[3]

## Effects in Breastfed Infants

A mother taking carisoprodol 700 mg plus propoxyphene 70 mg and acetaminophen 900 mg 3 times daily and partially breastfeeding her infant noticed no unusual behavior or adverse reactions in her infant. The infant grew normally and at 6 months of age, examination by a pediatrician found normal psychomotor development.[1]

A mother took carisoprodol 700 mg orally four times daily at 4- to 6-hour intervals during pregnancy and while exclusively nursing her newborn infant. Slight sedation of the infant was noted during the first month of life.[3]

## Effects on Lactation and Breastmilk

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

## References

1. Nordeng H, Zahlens K, Spigset O. Transfer of carisoprodol to breast milk. *Ther Drug Monit.* 2001;23:298-300. PubMed PMID: 11360042.
2. Bailey DN, Briggs JR. Carisoprodol: an unrecognized drug of abuse. *Am J Clin Pathol.* 2002;117:396-400. PubMed PMID: 11888078.
3. Briggs GG, Ambrose PJ, Nageotte MP, Padilla G. High-dose carisoprodol during pregnancy and lactation. *Ann Pharmacother.* 2008;42:898-901. PubMed PMID: 18460586.

## Substance Identification

### Substance Name

Carisoprodol

## **CAS Registry Number**

78-44-4

## **Drug Class**

Breast Feeding

Lactation

Muscle Relaxants, Central