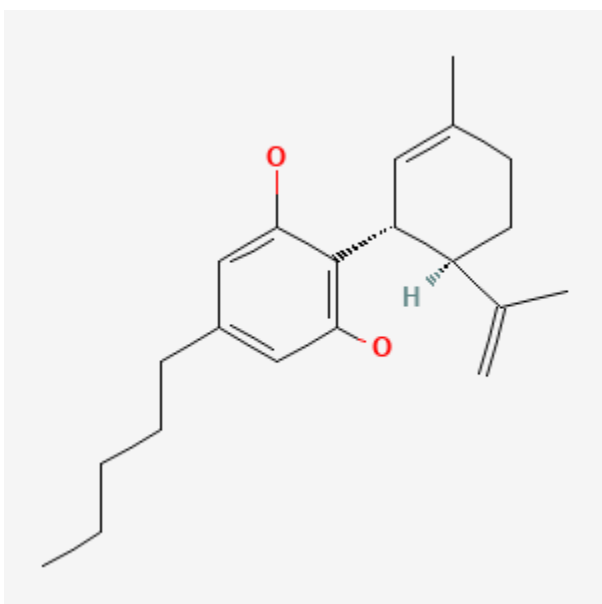




Cannabidiol

Revised: June 15, 2024.

CASRN: 13956-29-1



Drug Levels and Effects

Summary of Use during Lactation

Cannabidiol is a component of cannabis. Cannabidiol has not been studied in nursing women taking the pharmaceutical product, but it has been detected in the breastmilk of some mothers who used cannabis products.[1-3] Because no published information is available with cannabidiol use as an antiepileptic during breastfeeding, an alternate drug may be preferred, especially while nursing a newborn or preterm infant.

Drug Levels

In published reports of anticonvulsant use during breastfeeding, most women were taking a combination of anticonvulsants. Some other anticonvulsants (e.g., phenytoin, carbamazepine) stimulate the metabolism of other

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drugs including anticonvulsants, whereas others (e.g., valproic acid) inhibit the metabolism of other drugs. Therefore, the relationship of the maternal dosage to the concentration in breastmilk can be quite variable, making calculation of the weight-adjusted percentage of maternal dosage less meaningful than for other drugs reported in LactMed.

Maternal Levels. Cannabidiol was measured in the milk of mothers who reported using cannabis and donated milk samples. Fifty mothers donated 54 samples of milk to a breastmilk repository. The median concentration of cannabidiol was 5 mcg/L (range 1.3 to 8.6 mcg/L).[2]

A physiologically based pharmacokinetic model of cannabidiol was constructed using data from 181 mothers who donated 200 samples of breastmilk to the breastmilk repository. Of these, 42% had cannabidiol concentration below the level of quantification. Maternal ingestion by oil or pipe tended to result in higher predicted concentrations as compared with joint, blunt or edible forms. The dose in infants was projected to result in exposure of fully breastfed infants of less than 1% of that in children 4 to 10 years old who were receiving the drug therapeutically for seizures.[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

(Seizure Disorder) Carbamazepine, Divalproex, Gabapentin, Lamotrigine, Oxcarbazepine, Phenytoin, Valproic Acid

References

1. Silveira GD, Loddi S, De Oliveira CDR, et al. Headspace solid-phase microextraction and gas chromatography-mass spectrometry for determination of cannabinoids in human breast milk. *Forensic Toxicol* 2017;35:125-32. doi:10.1007/s11419-016-0346-5
2. Bertrand KA, Hanan NJ, Honerkamp-Smith G, et al. Marijuana use by breastfeeding mothers and cannabinoid concentrations in breast milk. *Pediatrics* 2018;142:e20181076. PubMed PMID: 30150212.
3. Yeung CHT, Bertrand KA, Best BM, et al. Cannabidiol exposure through maternal marijuana use: Predictions in breastfed infants. *Clin Pharmacokinet* 2023;62:1611-9. PubMed PMID: 37735347.

Substance Identification

Substance Name

Cannabidiol

CAS Registry Number

13956-29-1

Drug Class

Breast feeding

Lactation

Milk, Human

Anticonvulsants

Cannabinoids