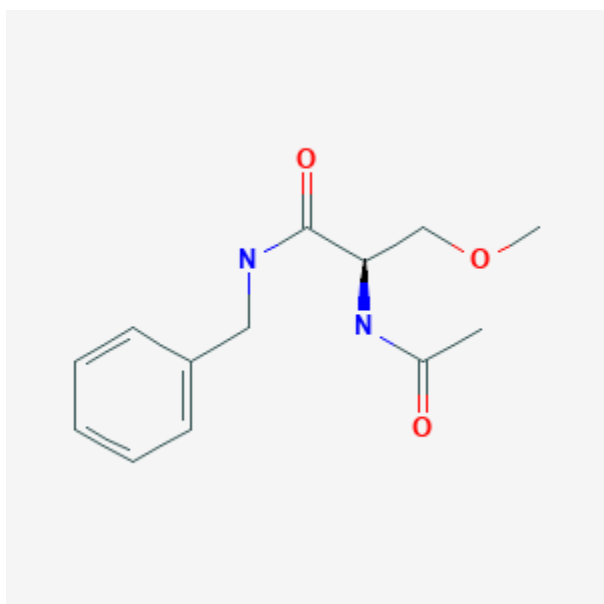




## Lacosamide

Revised: October 23, 2019.

CASRN: 175481-36-4



## Drug Levels and Effects

### Summary of Use during Lactation

Limited information indicates that a maternal dose of 200 mg daily produce low levels in milk. Dosages up to 400 mg daily appeared to not adversely affect development in 3 infants who were breastfed for 7 to 9 months. Until more data are available lacosamide should only be used with careful monitoring during breastfeeding, 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 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,

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making calculation of the weight-adjusted percentage of maternal dosage less meaningful than for other drugs in this database.

*Maternal Levels.* A pregnant woman was treated with levetiracetam 1000 mg and lacosamide 100 mg twice daily as well as enoxaparin and labetalol for the rest of her pregnancy and postpartum. The lacosamide level in milk on day 5 postpartum (exact time unspecified) was 0.4 mg/L. The authors estimated that a fully breastfed infant would receive about 1.8% of the maternal weight-adjusted dosage.[1]

A woman took oral lacosamide 200 mg daily (dosage schedule not stated) throughout pregnancy and postpartum. At 20 days postpartum, breastmilk levels were 3.57 mg/L before the dose, 5.46 mg/L at 2 hours after the dose and 4.24 mg/L at 6 hours after the dose.[2]

*Infant Levels.* A pregnant woman was treated with levetiracetam 1000 mg and lacosamide 100 mg twice daily as well as enoxaparin and labetalol for the rest of her pregnancy and postpartum. Her infant was delivered at 36 weeks gestation and about 50% breastfed for the first 15 days of life. The infant had a cord blood lacosamide concentration of 3.9 mg/L at birth and a lacosamide blood level of 0.3 mg/L on day 8 of age.[1]

## Effects in Breastfed Infants

A pregnant woman suffered blood clots in the sinuses and 2 small intracranial hemorrhages followed by status epilepticus at 8 weeks of gestation. She was treated with levetiracetam 1000 mg and lacosamide 100 mg twice daily as well as enoxaparin and labetalol for the rest of her pregnancy and postpartum. Her infant was delivered at 36 weeks gestation and about 50% breastfed for the first days of life. The infant was sleepy and fed poorly, but pauses in breastfeeding did not improve the infant's condition. Breastfeeding was discontinued at 15 days postpartum and the infant gradually improved. The infant showed normal development at 7 months of age.[1] Lacosamide and levetiracetam were probably the cause of the infant's sedation and poor feeding.

One center reported 3 mothers with epilepsy who took lacosamide while breastfeeding their infants. The extent of breastfeeding was not clearly stated, but one woman only partially breastfed her infant. The first mother took levetiracetam 2000 mg daily plus lacosamide 200 mg twice daily and breastfed her infant for 7 months with no infant adverse effects at 24 months of age. The second mother took lacosamide 300 mg daily and partially breastfed her infant for 8 months with normal developmental milestones at 6, 12 and 18 months of age. The third mother took lacosamide 400 mg daily and breastfed for 9 months without any feeding or alertness problems and no cognitive alterations or developmental delays at 36 months of age.[3]

## Effects on Lactation and Breastmilk

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

## References

1. Ylikotila P, Ketola RA, Timonen S, et al. Early pregnancy cerebral venous thrombosis and status epilepticus treated with levetiracetam and lacosamide throughout pregnancy. *Reprod Toxicol.* 2015;57:204–6. PubMed PMID: 26187779.
2. Zarubova J, Kremlackova V, Borecka K et al. Plasma and breast milk levels of lacosamide before, during and post pregnancy. *Epilepsia.* 2016;57:69. Abstract. DOI: [10.1111/epi.13609](https://doi.org/10.1111/epi.13609).
3. Lattanzi S, Cagnetti C, Foschi N, et al. Lacosamide during pregnancy and breastfeeding. *Neurol Neurochir Pol.* 2017;51:266–9. PubMed PMID: 28385340.

## **Substance Identification**

### **Substance Name**

Lacosamide

### **CAS Registry Number**

175481-36-4

### **Drug Class**

Breast Feeding

Lactation

Anticonvulsants