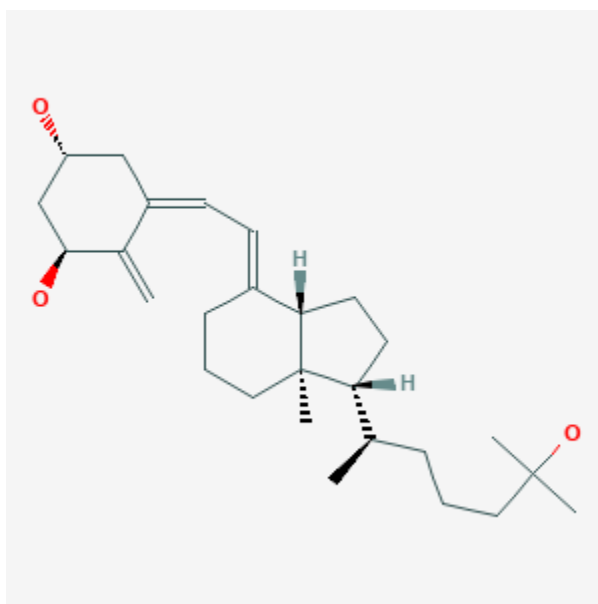




## Calcitriol

Revised: December 3, 2018.

CASRN: 32222-06-3



## Drug Levels and Effects

### Summary of Use during Lactation

Calcitriol is the normal physiologically active form of vitamin D, 1,25-dihydroxyvitamin D. Limited data indicate that its use in nursing mothers in appropriately adjusted doses does not affect the breastfed infant. If calcitriol is required by the mother, it is not a reason to discontinue breastfeeding. Calcitriol and calcium dosage requirements are usually reduced during lactation in women with hypoparathyroidism.[1][2][3][4][5][6][7][8] The American Academy of Pediatrics recommends the administration of a minimum of 400 IU of vitamin D daily to all infants, children and adolescents.[9]

### Drug Levels

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

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

## Effects in Breastfed Infants

A woman with hypoparathyroidism breastfed her infant from week 1 to week 32 postpartum while taking calcitriol. The dose was initially 0.5 mcg daily, but was decreased to 0.25 mcg daily after 8 weeks. The infant thrived during breastfeeding and had normal serum calcium levels at 1 and 3 weeks and 3 months of age.[3]

A woman breastfed infants after two pregnancies while taking calcitriol in doses of 0.75 and 1 mcg daily. There were no reports of adverse reactions.[10]

A woman breastfed her newborn infant for 9 days while taking calcitriol 0.5 mcg three times daily. Calcitriol was stopped at that time because of hypercalcemia, but restarted at 40 days postpartum in low doses that were gradually increased until the prepregnancy dosage of 1.5 mcg daily was reached just before weaning at 12.5 months postpartum.[5]

A woman with discoid lupus was taking calcitriol 0.25 mcg every 2 days and several other medications concurrently. Her infant was breastfed for 12 months and followed up at 15 months of age. No adverse effects were reported during breastfeeding and the infant was growing and developing normally at 15 months of age. [11]

## Effects on Lactation and Breastmilk

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

## References

1. Sweeney LL, Malabanan AO, Rosen H. Decreased calcitriol requirements during pregnancy and lactation, with a window of increased requirements immediately postpartum. *Endocr Pract.* 2010;1-11. PubMed PMID: 20061285.
2. Cathebras P, Cartry O, Sassolas G, Rousset H. [Hypercalcemia induced by lactation in 2 patients with treated hypoparathyroidism]. *Rev Med Interne.* 1996;17:675-6. PubMed PMID: 8881196.
3. Caplan RH, Wickus GG. Reduced calcitriol requirements for treating hypoparathyroidism during lactation. A case report. *J Reprod Med.* 1993;38:914-8. PubMed PMID: 8277494.
4. Caplan RH, Beguin EA. Hypercalcemia in a calcitriol-treated hypoparathyroid woman during lactation. *Obstet Gynecol.* 1990;76 (3 Pt 2):485-9. PubMed PMID: 2381632.
5. Cundy T, Haining SA, Guillard-Cumming DF et al. Remission of hypoparathyroidism during lactation: evidence for a physiological role for prolactin in the regulation of vitamin D metabolism. *Clin Endocrinol (Oxf).* 1987;26:667-74. PubMed PMID: 3665123.
6. Mather KJ, Chik CL, Corenblum B. Maintenance of serum calcium by parathyroid hormone-related peptide during lactation in a hypoparathyroid patient. *J Clin Endocrinol Metab.* 1999;84:424-7. PubMed PMID: 10022395.
7. Rude RK, Haussler MR, Singer FR. Postpartum resolution of hypocalcemia in a lactating hypoparathyroid patient. *Endocrinol Jpn.* 1984;31:227-33. PubMed PMID: 6548698.
8. Krysiak R, Kobielski-Gembala I, Okopien B. Hypoparathyroidism in pregnancy. *Gynecol Endocrinol.* 2011;27:529-32. PubMed PMID: 21463229.
9. Wagner CL, Greer FR. Prevention of rickets and vitamin D deficiency in infants, children, and adolescents. *Pediatrics.* 2008;122:1142-52. PubMed PMID: 18977996.
10. Callies F, Arlt W, Scholz HJ et al. Management of hypoparathyroidism during pregnancy--report of twelve cases. *Eur J Endocrinol.* 1998;139:284-9. PubMed PMID: 9758437.
11. Moretti ME, Verjee Z, Ito S, Koren G. Breast-feeding during maternal use of azathioprine. *Ann Pharmacother.* 2006;40:2269-72. PubMed PMID: 17132809.

## **Substance Identification**

### **Substance Name**

Calcitriol

### **CAS Registry Number**

32222-06-3

### **Drug Class**

Breast Feeding

Lactation

Bone Density Conservation Agents

Vitamins

Vitamin D