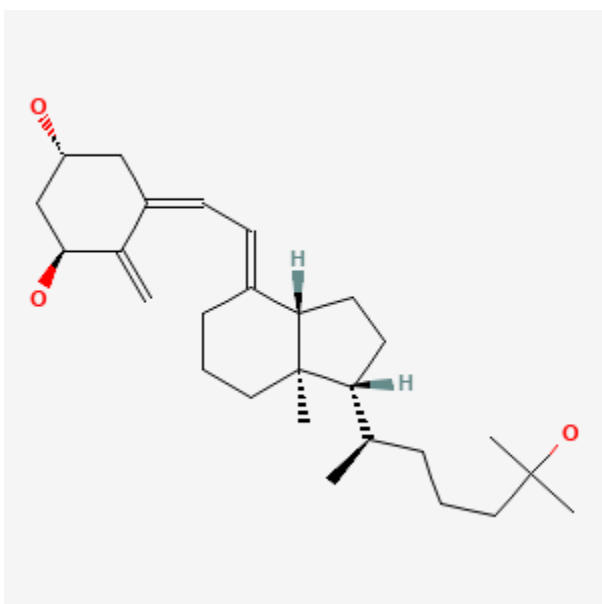




Calcitriol

Revised: April 18, 2022.

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. Several women with hypocalcemia have successfully breastfed during breastfeeding, with sometimes fluctuating serum calcium levels. 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.[1-13]

Drug Levels

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

Disclaimer: Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

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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.[4]

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.[14]

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.[2]

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. [15]

A nursing mother with autosomal dominant hypoparathyroidism type 1 was treated with teriparatide for 8 months postpartum then calcitriol 0.5 mcg twice daily was substituted. She breastfed her infant exclusively for 6 months then with supplementation to 1 year. Her infant had no change in serum calcium when maternal calcitriol was begun. The mother began weaning at 11 months and at 1 year of age weaning was complete. Growth and development were normal at 1.5 years of age. [13]

Effects on Lactation and Breastmilk

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

References

1. Rude RK, Haussler MR, Singer FR. Postpartum resolution of hypocalcemia in a lactating hypoparathyroid patient. *Endocrinol Jpn.* 1984;31:227–33. PubMed PMID: 6548698.
2. Cundy T, Haining SA, Guillard-Cumming DE, 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.
3. 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.
4. 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.
5. Cathébras P, Cartry O, Sassolas G, et al. *Rev Med Interne.* 1996;17:675–6. [Hypercalcemia induced by lactation in 2 patients with treated hypoparathyroidism]. PubMed PMID: 8881196.
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. Hatswell BL, Allan CA, Teng J, et al. Management of hypoparathyroidism in pregnancy and lactation - A report of 10 cases. *Bone Rep.* 2015;3:15–9. PubMed PMID: 28377963.
8. Sweeney LL, Malabanan AO, Rosen H. Decreased calcitriol requirements during pregnancy and lactation, with a window of increased requirements immediately postpartum. *Endocr Pract.* 2010;16:459–62. PubMed PMID: 20061285.

9. Krysiak R, Kobielski-Gembala I, Okopien B. Hypoparathyroidism in pregnancy. *Gynecol Endocrinol*. 2011;27:529–32. PubMed PMID: 21463229.
10. Hartogsohn EAR, Khan AA, Underbjerg L, et al. Changes in treatment needs of hypoparathyroidism during pregnancy and lactation: A case series. *Clin Endocrinol (Oxf)*. 2020;93:261–8. PubMed PMID: 32350890.
11. Wang JJ, Wang O, Wang YB, et al. Changes in serum calcium and treatment of hypoparathyroidism during pregnancy and lactation: A single-center case series. *J Clin Endocrinol Metab*. 2021;106:e5054–e5063. PubMed PMID: 34279662.
12. Ali DS, Dandurand K, Khan AA. Hypoparathyroidism in pregnancy and lactation: Current approach to diagnosis and management. *J Clin Med*. 2021;10:1378. PubMed PMID: 33805460.
13. Shulman D. Subcutaneous infusion of rhPTH(1-34) during pregnancy and nursing in a woman with autosomal dominant hypoparathyroidism 1. *J Endocr Soc* 2022;6:bvac031. PMID: 35350394
14. 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.
15. Moretti ME, Verjee Z, Ito S, et al. 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

Milk, Human

Bone Density Conservation Agents

Vitamins

Vitamin D