



GUIDELINE

Vitamin D (Colecalciferol) Supplementation in the Neonate

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA, KEMH PNW

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Aim

To outline the prevention and management of neonatal vitamin D deficiency.

Risk

Suboptimal treatment may lead to vitamin D deficient sequelae.

Background

Vitamin D is essential for bone, muscle and immune health. Vitamin D deficiency in infancy and childhood can cause nutritional rickets.³

Sources of vitamin D are:

- Dietary intake
- Vitamin D supplementation
- UVB exposure in sunlight - excess UV exposure is associated with skin malignancies and therefore **not** recommended.²

Vitamin D Supplementation

Guidelines and consensus recommendations are inconsistent regarding Vitamin D supplementation¹⁻⁸.

Refer to the [CAHS Neonatology Colecalciferol Medication protocol](#) for criteria and dosing.

Provide all parents with the [WNHS Vitamin D \(Colecalciferol\) Supplements information leaflet](#).

Vitamin D Deficiency

Refer to the [CAHS Neonatology Colecalciferol Medication protocol](#) for the treatment and monitoring of vitamin D deficiency in preterm infants.

Vitamin D deficiency is common among pregnant women. See [WNHS Vitamin D in Pregnancy](#) and [RANZCOG Vitamin and Mineral Supplementation and Pregnancy C-Obs 25](#) guidelines for detailed information regarding testing, supplementation and treatment of vitamin D deficiency in pregnancy.

Related CAHS internal policies, procedures and guidelines

[CAHS Neonatal Colecalciferol Medication protocol](#)


References and related external legislation, policies, and guidelines

1. [WNHS Vitamin D in Pregnancy](#)
2. [RANZCOG Vitamin and Mineral Supplementation and Pregnancy C-Obs 25](#)
3. Corsello A, Spolidoro GCI, Milani GP, Agostoni C. Vitamin D in pediatric age: Current evidence, recommendations, and misunderstandings. *Frontiers in Medicine*. (2023) 10.3389
4. U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Edition. December 2020. Available at [DietaryGuidelines.gov](#).
5. Mansur JL, Oliveri B, Giacoia E, Fusaro D, Costanzo PR. Vitamin D: Before, during and after Pregnancy: Effect on Neonates and Children. *Nutrients*. 2022 May 1;14(9):1900. doi: 10.3390/nu14091900. PMID: 35565867; PMCID: PMC9105305.
6. Munns CF, Shaw N, Kiely M et al. Global Consensus Recommendations on Prevention and Management of Nutritional Rickets. *J Clin Endocrinol Metab*. 2016 Feb;101(2):394-415. doi: 10.1210/jc.2015-2175. Epub 2016 Jan 8. PMID: 26745253; PMCID: PMC4880117.
7. Yang M, Shen X, Lu D, Peng J, Zhou S, Xu L, Zhang J. Effects of vitamin D supplementation on ovulation and pregnancy in women with polycystic ovary syndrome: a systematic review and meta-analysis. *Front Endocrinol (Lausanne)*. 2023 Aug 1;14:1148556. doi: 10.3389/fendo.2023.1148556. PMID: 37593349; PMCID: PMC10430882.
8. Braegger C, Campoy C, Colomb V, Decsi T, Domellof M, Fewtrell M, Hojsak I, Mihatsch W, Molgaard C, Shamir R, Turck D, van Goudoever J; ESPGHAN Committee on Nutrition. Vitamin D in the healthy European paediatric population. *J Pediatr Gastroenterol Nutr*. 2013 Jun;56(6):692-701. doi: 10.1097/MPG.0b013e31828f3c05. PMID: 23708639.

Useful resources

[WNHS Vitamin D \(Colecalciferol\) Supplements information leaflet](#)

This document can be made available in alternative formats on request.

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