



View By Topic

[Introduction](#)
[Recommendations](#)
[Proper Handling and Storage of Human Milk](#)
[Travel](#)
[Recommendations For The Nursing Mother](#)
[Vaccinations](#)
[Vitamin D Supplementation](#)
[Another Woman's Breast Milk](#)
[Diseases and Conditions](#)
[Frequently Asked Questions \(FAQs\)](#)
[Data and Statistics](#)
[Research](#)
[Promotion & Support](#)
[Policies](#)
[Additional Resources](#)
[Nutrition](#)

Breastfeeding Information for Families

- [Breastfeeding Hotline](#)

The DHHS Office on Women's Health

- [Breastfeeding for Parents*](#)

La Leche League International

- [One-on-One Consultation*](#)

The International Lactation Consultant Association

Vaccinations

A supplement of 200 IU per day of vitamin D is recommended for all breastfed infants.

American Academy of Pediatrics, April 2003

While breastfeeding is the recommended method of infant feeding and provides infants with necessary nutrients and immune factors, breast milk alone does not provide infants with an adequate intake of vitamin D. Most breastfed infants are able to synthesize additional vitamin D through routine sunlight exposure. However, published reports from 2000 and 2001 of cases of vitamin D deficiency rickets among breastfed infants in North Carolina, Texas, Georgia, and the mid-Atlantic region caused researchers to take another look at whether all breastfed infants were getting adequate vitamin D.

Vitamin D deficiency rickets among breastfed infants is rare, but it can occur if an infant does not receive additional vitamin D from a vitamin supplement or from adequate exposure to sunlight. A number of factors decrease the amount of vitamin D a person will synthesize from sunlight. These factors include

- Living at high latitudes (closer to the polar regions), particularly during winter months
- Air quality conditions: high levels of air pollution
- Weather conditions: dense cloud covering
- The degree to which clothing covers the skin
- Use of sunscreen
- Skin pigmentation: darker skin types

Furthermore, there exists a major public health effort to decrease the risk of skin cancer by encouraging people to limit their sunlight exposure (visit: www.cdc.gov/cancer/nscpep/index.htm.)

As a result, in April 2003, the American Academy of Pediatrics (AAP) published new guidelines for vitamin D intake, recommending that all infants have a minimum intake of 200 IU of vitamin D per day, beginning during the first 2 months of life.

Human milk typically contains a vitamin D concentration of 25 IU per liter or less. Therefore, a supplement of 200 IU per day of vitamin D is recommended for all breastfed infants. Adequate amounts of vitamin D can be achieved by currently available multivitamin products containing 400 IU of vitamin D per mL. These products are available over the counter. Currently there are no over the counter preparations containing vitamin D alone without other vitamins. Prescription preparations of vitamin D have very high vitamin D concentration and are not for routine home use.

If an infant is weaned to vitamin-D fortified infant formula (consuming at least 500 mL per day) or a child one year of age or older is weaned to vitamin-D fortified milk, then further supplementation is not necessary.

To review the AAP guidelines on vitamin D intake published in *Pediatrics* April 2003, 111 (4):908–910, visit [http://aappolicy.aappublications.org/cgi/content/full/pediatrics;111/4/908*](http://aappolicy.aappublications.org/cgi/content/full/pediatrics;111/4/908)

[back to top](#)



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[Home](#) [Policies and Regulations](#) [Disclaimer](#) [e-Government](#) [FOIA](#) [Contact Us](#)

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