

Preventing Vitamin D Deficiency

Western Missouri Medical Center (WMMC) would like to congratulate you on the birth of your new baby! Below is helpful information regarding vitamin D deficiency, rickets and the recommendations to supplement vitamin D intake in all breastfed infants. While breastfeeding is the recommended method of infant feeding and provides them with necessary nutrients and immune factors, breast milk alone does not provide infants with an adequate intake of vitamin D.

Here are some commonly asked questions and suggestions recommended in the American Academy of Pediatrics (AAP) Clinical Report, "Prevention of Rickets and Vitamin D Deficiency in Infants, Children and Adolescents." By following these recommendations, your baby can receive adequate vitamin D to help prevent rickets and reduce the problems associated with vitamin D deficiency.

Commonly Asked Questions:

- 1. Why do babies and older children need vitamin D? Vitamin D is essential to help your body develop strong bones and much more.
- 2. How will I know if my baby or child has rickets from vitamin D deficiency? Rickets is a disease of the bones and is difficult to diagnose clinically without an X-ray before your infant begins to walk, at which time there will be excessive bowing of the legs. There may also be swelling of the wrists and ankles. Many infants with vitamin D deficiency will have slow growth. Some may have breathing and heart problems. If you notice these signs, call your child's doctor immediately.
- 3. Why is it necessary to give vitamin D supplements to my breastfed baby? Doesn't human milk have all the essential nutrients for babies? The AAP recommends breastfeeding infants for at least 12 months and for as long thereafter as the mother and infant desire. However, human milk does not contain enough vitamin D to prevent rickets. Sunlight is the common source of vitamin D production in the skin.
- 4. If my baby goes out in the sunlight every day or every other day for an hour or so, isn't that enough? It may be enough sunlight exposure in some parts of the country year round, but sunlight exposure is difficult to measure. Factors such as the amount of pigment in your baby's skin and skin exposure affect how much vitamin D is produced by your baby's body from sunlight. In the more northern parts of the country (during the winter), the amount of sunlight is not enough for any baby. However, sun exposure to infant's and children's skin has been shown to increase the risk for skin cancer later in life. It's now recommend that infants and young children not be in direct sunlight when they are outside, particularly infants younger than six months of age. Sunscreens should be used on all children when in sunlight. Unfortunately, this prevents vitamin D formation in the skin.

- 5. Do I need to give vitamin D supplements to formula fed infants? No, all formulas sold in the United States have a sufficient amount of vitamin D that infants need as long as they are given 27 to 32 ounces of infant formula per day.
- 6. When I take my baby outside, I always cover his/her entire skin with sunscreen as recommended by the AAP. Is that enough to protect my baby from cancer and yet provide vitamin D? No, sunscreen prevents the skin from making vitamin D.
- 7. How do I give vitamin D to my infant? Liquid multivitamin drops with vitamin D are available for infants. By giving your baby the recommended amount of vitamin drops from the dropper, your baby will get all the vitamin D needed to prevent rickets.
- 8. When should I start giving the vitamin D drops? You should start during the first few days of life.
- 9. How often do I give the vitamin D drops? You should give these drops once a day, every day. If you forget one day, don't worry because the vitamin D is stored in your baby. There will be enough in your baby's body to prevent rickets.
- 10. If I give the vitamin drops, will my baby not want to breastfeed? No, the drops will not interfere with breastfeeding since the amount is very small. Giving a few drops into the corner of the baby's mouth towards the cheek will not create any problems with breastfeeding.
- 11. Do the vitamin drops taste bad? Some vitamin drops do have a strong or unpleasant taste, especially the drops that contain vitamin B. Fortunately, the triple vitamin drops containing vitamins A, C and D taste okay.
- 12. Do babies need vitamins A and C also? Breastfed babies do not need vitamins A and C, but giving them these additional vitamins in this dosage is not harmful. In some parts of Africa, there is vitamin A deficiency and those babies may also need the vitamin A.
- 13. How long do I continue giving the vitamin D drops? You should continue giving them until your child has been weaned from breastfeeding and is receiving 27 to 32 ounces of infant formula every day. The AAP recommends that, "infants weaned before 12 months of age should not receive cow's milk feedings, but should receive iron-fortified infant formula." Once your child begins drinking at least a quart per day of vitamin D-fortified milk after 12 months of age, he/she does not need additional vitamin D drops or a tablet. However, if your child drinks less than one quart of regular milk, you should give him/her vitamin D drops or a tablet. This recommendation applies to children of all ages and even adults.
- 14. My older children do not consume any milk. How can they get the needed vitamin D? There are the same concerns for protecting the skin of these children from direct sunlight exposure to prevent skin cancer later in life. Vitamin D-fortified milk is the sole dietary source of vitamin D. Any child who is not consuming at least 32 ounces per day of vitamin D-fortified milk or other foods fortified with vitamin D should receive vitamin D as part of a vitamin drop or tablet to ensure adequate vitamin D intake. It is now recommended that even adults consume vitamin D in milk or vitamin tablets.