Vitamin D and Bone Health

Vitamin D is a vitamin that helps the body absorb and use calcium. Calcium and vitamin D help the bones grow and keep them strong. Most children get vitamin D from 3 potential sources:

1. Sunlight: Sunlight helps the body make vitamin D. Playing outside in sunlight about 15 minutes a few times a week helps the body to make vitamin D.
2. Fortified milk and juice: Most milk and many juices today have vitamin D added to them to make them “fortified” with vitamin D.
3. Foods: Only a few foods contain naturally occurring vitamin D; these include cod liver oil, egg yolks, and fatty fish such as salmon.

Vitamin D is needed by children of all ages, from newborn babies to adolescents. The current recommendation by the American Academy of Pediatrics is for all children to get 400 IU/d of vitamin D each day.

MAKING SURE YOUR CHILD IS GETTING ENOUGH VITAMIN D

Infants. Both exclusively and partially breastfed babies should receive vitamin D supplements beginning in the first few days after birth. Ask your doctor for a prescription of vitamin D drops.

Children. Children should be encouraged to run and play outside a few times each week. In addition to a healthy diet, a vitamin D supplement or children’s vitamin can help make sure your child gets the recommended amount of vitamin D each day. Formula-fed infants and all older kids should take a vitamin D supplement if they get less than 0.95 L (1 qt) of vitamin D fortified formula or milk daily (four 224-g [8-oz] bottles or cups).

Adolescents. Adolescence is the most important time period for building strong bones. Offer your teen a vitamin D supplement or combination of calcium/vitamin D supplement to make sure he or she gets enough of these vitamins and minerals.

CONDITIONS THAT CAN OCCUR WHEN A CHILD DOES NOT GET ENOUGH VITAMIN D

Rickets. Young children who do not get enough vitamin D can develop rickets. Rickets is a bone-softening disease that can cause the legs to become bowed and can lead to poor growth.

Stress Fractures. Adolescents who do not get enough vitamin D are at risk for stress fractures. Stress fractures occur in the legs or feet during weight-bearing exercises such as running, in bones that are not strong enough. A research study in this month’s issue of Archives found that low intake of vitamin D was linked to stress fractures in adolescents.

Osteoporosis. In the long term, children who do not get enough vitamin D may grow up to be adults with osteoporosis, which is a condition in which the bones are weak or brittle.

FOR MORE INFORMATION

INFORM YOURSELF
To find this and other Advice for Patients articles, go to the Advice for Patients link on the Archives of Pediatrics & Adolescent Medicine website at http://www.archpediatrics.com.

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