

## Vitamin D and Bone Health

**V**itamin 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.

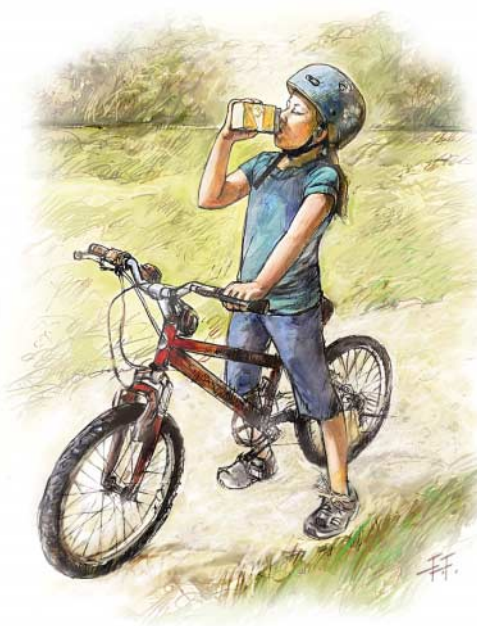
*Children.* Children should be encouraged to run and play outside a few times each week. In addition to a healthy diet, a vitamin D supplement or children’s vitamin can help make sure your child gets the recommended amount of vitamin D each day. Formula-fed infants and all older kids should take a vitamin 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

American Academy of Pediatrics  
<http://www.healthychildren.org/English/healthy-living/nutrition/pages/Vitamin-D-On-the-Double.aspx>

### 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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