

Vitamin D

Background: Vitamin D is essential for calcium metabolism to promote healthy bone growth in children and adolescents, and for maintaining bone strength in adults. New scientific data also suggest that vitamin D has a role in reducing the risk of certain chronic diseases, including diabetes, cancer, certain psychiatric conditions, and some disorders involving the immune system.

The primary source of vitamin D is from natural exposure to sunlight (such as 10 – 15 minutes of summer sun for an adult with light skin pigmentation). **Dietary supply** of vitamin D is rather limited, mainly from oily fish, liver, and vitamin D-fortified food (cereals, egg yolks) and vitamin-D fortified formula and milk (100 IU per 8-oz. serving). Because of many factors (geography, life style, dietary limitations, use of sun-screen lotions, etc.), many individuals do not get adequate amounts of vitamin D. Below are recommendations for vitamin D supplementation. **The preferred form is vitamin D3** (cholecalciferol).

For children and adolescents: Recommended minimal daily intake is 400 IU.

1. All breast-fed and partially breast-fed infants, and all infants who take less than 1 quart of formula a day should receive vitamin D supplements in the form of multivitamin drops (such as Poly-Vi-Sol), once a day. Depending on other factors, your child's provider can prescribe with or without fluoride or iron. Infants on vitamin D-fortified formula who take more than 1 quart/day do not require additional supplementation.
2. **Older children and adolescents** should get at least 400 IU of vitamin D through supplements (vitamin drops, chewable tablets or capsules).

For adults: Many experts believe that the current recommended doses are inadequate to maintain healthy bones, and suggest 1,000 IU of vitamin D3 daily for adults up to 65 years of age. After 65, the dose should be 2,000 IU per day. Patients with history of kidney stones or with conditions associated with too much calcium as measured by blood tests should not take extra vitamin D.

Pregnant and lactating women: It is essential to take supplemental vitamin D3 to prevent deficiency that can affect fetal skeletal development, tooth enamel formation and general fetal and infant growth.

Some individuals are at increased risk for vitamin D deficiency compared to the general population: they are people with dark skin pigmentation, patients with bowel disorder that cause chronic fat malabsorption or chronic diarrhea, or those taking certain anti-seizure medications. These individuals need more than 400 IU/day, and should be evaluated by their medical providers.

For more information or specific questions, discuss with your provider.