

## Vitamin D

Vitamin D (also known as Vitamin D2, Vitamin D3) comes from three sources:

- The sun
- Food
- Dietary supplements

Vitamin D is a fat-soluble vitamin, meaning that it can accumulate in the body because it is stored in the liver and fat tissues for long periods of time. It improves the absorption of calcium, a mineral that helps build and maintain healthy bones. It also improves the absorption of phosphorus, a mineral that is important for the development of bones and teeth.

There are two forms of vitamin D that are important to people: vitamin D2 (Ergocalciferol) and vitamin D3 (Cholecalciferol). Vitamin D2 comes from plants, while vitamin D3 is made in our skin when it is exposed to sunlight. Both forms of vitamin D can also be found in food.

There are several forms of vitamin D available as supplements including chewable tablets, capsules, drops, and liquids. Vitamin D is listed in both micrograms ( $\mu\text{g}$ ) and international units (IU). 1 microgram is 1/1000 of a milligram. 1 IU of vitamin D is the same as 0.025  $\mu\text{g}$  of vitamin D2 and 0.025  $\mu\text{g}$  of vitamin D3. Vitamin D supplements are usually shown as IU. Vitamin D is important in maintaining overall good health, developing and maintaining bones and teeth and helping to reduce the risk of developing osteoporosis. Studies have consistently shown that 800 IU of vitamin D lowers the risk of fractures of the spine, hip, wrist, and leg in adults, which are all complications of osteoporosis. Vitamin D supplementation is also beneficial for people with severe kidney failure who are receiving dialysis, as it can help prevent bone loss. Vitamin D is used as a supplement for people who do not receive enough vitamin D from sun exposure or from foods.

Although vitamin D is generally well-tolerated when taken in recommended doses, high doses of vitamin D over a long period of time can cause weakness, loss of appetite, dry mouth, and fatigue.

Women who are pregnant or breast-feeding can safely take oral vitamin D supplements in recommended amounts and it is recommended for infants who are breast-fed to be given vitamin D supplements, as they may not be receiving enough vitamin D. Always ask your doctor or pharmacist for information on how much vitamin D you should take, as it may be different depending on your age and what you are using it for.