

# Vitamin D Deficiency

Vitamin D deficiency is common, especially in Ohio. Vitamin D stores decline with age, particularly in the winter. This vitamin is essential for maintaining calcium balance in the body and for bone integrity. Subclinical deficiency is linked to the development of osteoporosis. Research on vitamin D deficiency is ongoing, and may be linked to the development of certain cancers and cardiovascular disease.

Calcium is a mineral that builds and strengthens bones. It is found in many foods, particularly milk and other dairy products. If calcium levels in the blood become too low, four small glands in the neck release a hormone called parathyroid hormone (PTH). This hormone draws calcium from the bones to raise blood calcium levels. Too much PTH in the blood will remove too much calcium from the bones; over time, the constant removal of calcium weakens the bones and puts you at risk for falls, fractures, and osteoporosis.

Vitamin D is also crucial to maintaining bone health. We get vitamin D from our diet, and from sun exposure. Healthy kidneys then produce an “active” form of vitamin D (calcitriol), to help the body absorb dietary calcium into the blood and the bones.

***Experts agree that levels < 20 ng/mL are suboptimal for skeletal health. The optimal vitamin D level has not been established, but most common treatment goals are to a level of 30-40 ng/mL.***

In order to keep your bones healthy, your doctor may prescribe high dose vitamin D replacement to supplement your deficiency. Please take the prescription strength medication as your doctor recommends. Once you have completed the prescription, take 2000 IU of vitamin D. This lower strength can be found at your local pharmacy, and doesn't require a physician prescription. You may need to take more than one pill to get to the recommended dose.

Periodically, your doctor will recheck your vitamin D. It is not uncommon to need more than one course of high-dose replacement, depending on how severe your deficit is.