

MANAGING YOUR VITAMIN D DEFICIENCY

What Is Vitamin D Deficiency?

Rickets is a disease affecting children's bones. Osteomalacia is the same bone disease in adults. In children, bones don't grow as well as they should and become soft and weak. In adults, bones weaken and may break. These disorders start when people don't have enough vitamin D in their diet.

The disorder occurs most often in elderly, institutionalized, or hospitalized people, such as those in nursing homes, but it can also occur in otherwise healthy adults. In the United States, rickets is rare. It occurs most during fast growth periods, when the body needs a lot of calcium and phosphorus (such as children 6 to 24 months old).

What Causes Vitamin D Deficiency?

The cause is a lack (deficiency) of vitamin D. Bones need vitamin D to form properly and be healthy. The vitamin helps the intestines absorb calcium and phosphorus, which are needed to make healthy bones. Vitamin D deficiency can occur because of a poor diet (lack of dairy products, cereals, fish liver oils) or a vegetarian diet. Poor vitamin D absorption can occur because of some seizure medicines, kidney or liver disease affecting metabolism of the vitamin, and not enough sunshine. Vitamin D forms in the skin when it's exposed to the sun. Adults with darker skin have a greater risk of having the deficiency. Also, because breast milk has low amounts of vitamin D, babies fed only breast milk can have the disorder.

What Are the Symptoms of Vitamin D Deficiency?

Most people with mild vitamin deficiency do not have any symptoms. Adults with severe deficiency may have chronic bone pain and muscle aches and tend to break bones easily.

Children with severe deficiency can grow slower than other children, their bones tend to break more easily, and they can have tenderness or pain in arm, leg, back, or hip bones. Their bones can have an unusual shape. They may have bowlegs, and the spine may have an abnormal curve. They can have problems with teeth, which may appear later and have more cavities. Other symptoms include fever, restlessness (especially at night), poorly developed muscles, and muscle cramps.

How Is Vitamin D Deficiency Diagnosed?

The health care provider may suspect the diagnosis from a medical history and physical examination. Blood and urine samples will be tested to measure vitamin D levels. Parathyroid hormone alkaline phosphatase and calcium excretion may be monitored in some cases. X-rays may be done to check bone structure. Rarely, the health care provider may take a sample of bone to look at with a microscope.

How Is Vitamin D Deficiency Treated?

Treatment consists of daily supplements of calcium, phosphorous, and vitamin D and eating foods rich in these substances. Good food sources of vitamin D are fish (salmon, mackerel, bluefish), liver, and fortified milk and orange juice.

Both children and adults should go outside as often as possible. Sunshine helps vitamin D work well. Children should try to use good posture to correct bone deformities. Some deformities may need an operation.

DOs and DON'Ts in Managing Vitamin D Deficiency

- ✓ **DO** eat a good diet including milk. If you're allergic to milk, find other sources of calcium and vitamin D.

- ✓ **DO** ask your health care provider about vitamin supplements.
- ✓ **DO** call your health care provider if you have bone pain.
- ⊗ **DON'T** forget to go outdoors as much as possible, but remember to use sunscreen.

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FOR MORE INFORMATION

Contact the following source:

- American Association of Clinical Endocrinologists: Tel: (904) 353-7878; Website:
<http://www.aace.com>

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