



Patient education: Vitamin D deficiency (The Basics)

[Written by the doctors and editors at UpToDate](#)

What is vitamin D deficiency?

Vitamin D deficiency is when you do not have enough vitamin D in your body. This is a problem, because the body needs vitamin D to absorb calcium and for other important jobs.

People who do not have enough vitamin D can:

- Have weak or soft bones, which can break easily or change in shape
 - Have weak muscles, which makes them more likely to fall
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Is there a test for vitamin D deficiency?

Yes. Your doctor or nurse can do a blood test to see if you have enough vitamin D. But you might not need this test. Doctors measure vitamin D levels only in people who are at risk for vitamin D deficiency. This includes people who:

- Spend most or all of their time indoors (for example, because they are in a nursing home)
 - Have medical problems (such as celiac disease) that make it hard for them to absorb vitamin D
 - Have a condition called "osteoporosis," which makes bones weak
 - Broke a bone too easily, such as by falling down
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What foods and drinks have vitamin D?

Foods and drinks that have a lot of vitamin D include ([figure 1](#)):

- Milk, orange juice, or yogurt with vitamin D added
- Salmon or mackerel
- Canned tuna fish

- Cereals with vitamin D added
- Cod liver oil

People's bodies can also get vitamin D from the sun. The body uses sunlight that shines on the skin to make vitamin D.

What are supplements?

Supplements are pills, capsules, or liquids that have nutrients in them. Supplements are another way people can get vitamin D.

Do I need to take vitamin D supplements?

Experts recommend that most adults take supplements that have 600 to 800 international units of vitamin D a day. This is the same as 15 to 20 micrograms of vitamin D. People who do not get enough vitamin D from their food or from the sun might need to take even more.

If your doctor recommends that you take vitamin D supplements, ask him or her which type, how much, and when to take the supplements.

The type and dose of supplement that is right for you will depend on your medical problems and the other medicines you take.

It is important not to take too much vitamin D. Taking too much vitamin D can make you sick.

Can I get extra vitamin D from the sun?

It is **not** a good idea to try to get vitamin D by spending time in the sun or using tanning beds. This can lead to sunburn and increase your risk of skin cancer.

More on this topic

[Patient education: Osteoporosis \(The Basics\)](#)

[Patient education: Calcium and vitamin D for bone health \(The Basics\)](#)

[Patient education: Vitamin D for babies and children \(The Basics\)](#)

[Patient education: Calcium and vitamin D for bone health \(Beyond the Basics\)](#)

[Patient education: Osteoporosis prevention and treatment \(Beyond the Basics\)](#)

[Patient education: Bone density testing \(Beyond the Basics\)](#)

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GRAPHICS

Foods and drinks with vitamin D



Foods rich in vitamin D include milk, canned tuna fish, cod liver oil, yogurt, ready-to-eat-cereals, salmon, canned sardines, mackerel, and eggs.

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