



BHS Medical Department

Vitamin D

What is vitamin D and what does it do?

- A nutrient you need for good health.
- Builds strong bones by helping your body absorb calcium.
- With calcium, vitamin D helps protect you from developing a disease that thins and weakens the bones and makes them more likely to break.
- Required for muscle and nerve functions to carry messages between your brain and your body.
- Helps your immune system to fight off invading bacteria and viruses.

Vitamin D and COVID-19

The role of vitamin D supplementation in the prevention or treatment of COVID-19 is not known.

How much vitamin D do I need?

The amount of vitamin D you need each day depends on your age.

Can I get vitamin D from the sun?

- Bodies make vitamin D from sunlight, but this varies based on geography, skin colour, air pollution, and other factors.
 - Clouds and smog reduce the amount of vitamin D your skin makes.
 - As you age, your skin's ability to make vitamin D when exposed to sunlight declines.
 - People with limited sun exposure, because they do not go outside or because they keep their body and head covered are unlikely to obtain adequate amounts of vitamin D from sunlight.
 - The darker your skin, the less vitamin D you make from sunlight exposure.
 - Your body makes vitamin D when your bare skin is exposed to the sun. Most people get at least some vitamin D this way.
 - Your skin does not make vitamin D from sunlight through a window.
 - Sunscreen limits vitamin D production.
- Sunlight exposure needs to be limited to avoid risk of skin cancer.

What foods provide vitamin D?

- Very few foods naturally contain vitamin D.
- Fortified foods provide most of the vitamin D in the diets of people. Check the Nutrition Facts label for the amount of vitamin D in a food or beverage.
- Usually milk supply is fortified. Many plant-based alternatives such as soy milk, almond milk, and oat milk are similarly fortified. But foods made from milk, like cheese and ice cream, are usually not fortified.
- Usually Vitamin D is added to many breakfast cereals and to some brands of orange juice, yogurt, and other food products.
- Fatty fish (like trout, salmon, tuna).
- Beef liver, cheese, and egg yolks have small amounts of vitamin D.
- Mushrooms provide a little vitamin D. Some mushrooms have been exposed to ultraviolet light to increase their vitamin D content.

Am I getting enough vitamin D?

- Because you get vitamin D from food and sunshine, one way to know if you're getting enough is a blood test that measures the amount of vitamin D in your blood.

- Some people are more likely than others to have trouble getting enough vitamin D.
- Because vitamin D is fat-soluble, it is best absorbed when taken with a meal that includes some fat.
- People with some health conditions limit fat absorption. This is because the vitamin D you consume is absorbed in the gut along with fat, so if your body has trouble absorbing fat, it will also have trouble absorbing vitamin D.

What happens if I don't get enough vitamin D?

- Vitamin D deficiency causes bone diseases in children and in adults.
- Vitamin D deficiency is more common in older people and have been associated with patients with COVID-19.
- Low vitamin D levels have been associated with an increased risk of pneumonia.
- In children, vitamin D deficiency causes a disease in which the bones become soft, weak, deformed, and painful.
- In teens and adults, vitamin D deficiency causes a disorder that causes bone pain and muscle weakness.

Can vitamin D be harmful?

Yes, getting too much vitamin D can be harmful. Very high levels of vitamin D in your blood can cause:

- Nausea, vomiting, muscle weakness, confusion, pain, loss of appetite, dehydration, excessive urination and thirst, and kidney stones.
- Extremely high levels of vitamin D can cause kidney failure, irregular heartbeat, and even death.
- High levels of vitamin D are almost always caused by consuming excessive amounts of vitamin D from dietary supplements.
- You cannot get too much vitamin D from sunshine because your skin limits the amount of vitamin D it makes.

Does vitamin D interact with medications or other dietary supplements?

Vitamin D supplements may interact with several types of medications. Tell your doctor about any dietary supplements and prescription or over-the-counter medicines you take. They can tell you if the dietary supplements might interact with your medicines. They can also explain whether the medicines you take might interfere with how your body absorbs or uses other nutrients.

People should get most of their nutrients from food and beverages. Foods contain vitamins, minerals, dietary fiber and other components that benefit health. In some cases, fortified foods and dietary supplements are useful when it is not possible otherwise to meet needs for one or more nutrients. This information should not take the place of medical advice. We encourage you to talk to your doctor about your interest in dietary supplements and what may be best for your overall health.

Ref: CDC Centers for Disease Control and Prevention.

Ref: National Institutes of Health