

Facts about Vitamin D¹

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Why do we need vitamin D?

Vitamin D is needed for normal absorption of calcium and phosphorus. It helps put these minerals into bones and teeth. This makes bones stronger and reduces your risk for brittle bones.

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



Lack of vitamin D affects bones and many other parts of the body. Growing children who do not get enough vitamin D have bones that can't support their weight (*rickets*). Adults deficient in vitamin D can develop soft bones (*osteomalacia*). They also can lose bone mass, which leads to brittle bones (*osteoporosis*). Vitamin D also helps the immune system as it fights off infection and helps keep us healthy. Without enough vitamin D, we are more likely to get certain diseases.

How much vitamin D do we need?

New research is finding that for good health we should have more vitamin D in our bodies than we used to think was needed. Higher levels of vitamin D can

protect against disease and bone loss. Older adults and persons with dark skin are at higher risk than others for having low levels of vitamin D in their bodies.



How can we get enough vitamin D?

We get vitamin D from three sources—sunlight, food and supplements.



Sunlight: When exposed to sunlight, the skin makes a compound that is converted to vitamin D in the liver and kidneys.



We need 10–15 minutes of direct sun on our face and arms, without sunscreen, two to three times a week to make enough vitamin D.

People in the northern U.S. need longer time in the sun than those in the south, especially in the winter when the sun is lower in the sky. Several factors affect how well the body makes vitamin D after

1. This document is FCS8640, one of a series of the Department of Family, Youth and Community Sciences, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. First published: June 2001. Revised April 2009.
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the skin is exposed to sunlight. The following people may be at risk for vitamin D deficiency:

- Older people.
- Persons with dark skin.
- People with kidney or liver disease.
- People who do not get enough direct sun exposure.

Food: Eggs, sardines, and salmon contain vitamin D. Most fluid milk and some brands of yogurt are fortified with vitamin D. Fortified breakfast cereals, breads, and orange juice also may contain this vitamin. It is hard to get enough vitamin D from food. Here are some foods and the amount of vitamin D they typically contain:

Food	Vitamin D	
	mcg	IU
Salmon, cooked, 3 oz	8	320
Sardines, canned in oil, 3 oz	6	240
Milk, fortified, 1 cup	2.5	100
Shrimp, canned, 3 oz	2.25	90
Fortified orange juice, ¾ cup	1.9	75
Cereal, fortified, 1 serving	1 or more	40 or more
Egg yolk, cooked, 1 large	0.6	25
mcg = micrograms oz = ounces IU = International Units		

Supplements: If you can't get enough vitamin D from your diet, and you don't get out in the sun much, a supplement can help. It is recommended that older adults and persons with dark skin get extra vitamin D from fortified foods or supplements.



This table shows one example of foods and a supplement that together meet the most current estimated daily need for vitamin D.

Source	Amount of Vitamin D
Vitamin D-fortified milk, 3 cups	7.5 mcg (300 IU)
Vitamin D-fortified orange juice, 1 cup	2.5 mcg (100 IU)
Vitamin D supplement	15 mcg (600 IU)
mcg = micrograms IU = International Units	

How much is too much?

Vitamin D toxicity can cause nausea, mood changes, and organ damage. The current recommendation is to not get more than 50 mcg (2000 IU) of vitamin D each day from food and supplements. This level may increase; check with your doctor for specific advice.

Where can I get more information?

The Family and Consumer Sciences (FCS) agent at your county Extension office may have written information and nutrition classes for you to attend. Also, a physician or registered dietitian (RD) can provide reliable information.

Reliable nutrition information may be found on the Internet at these sites:

- <http://fyics.ifas.ufl.edu>
- <http://nutrition.gov>
- <http://dietary-supplements.info.nih.gov>
- <http://www.nlm.nih.gov/medlineplus/ency/article/002405.htm>

