

VITAMIN D FOR HEALTHY BONES

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What is vitamin D?

Vitamin D is a nutrient required for good bone health. Vitamin D helps the body absorb calcium and keep normal calcium levels in the blood.

Children and adults need vitamin D to keep bones strong and healthy. When people do not get enough vitamin D, they can lose bone and become at risk for breaking bones. This condition is called osteoporosis.

Two other conditions, different from osteoporosis, caused by a severe shortage of vitamin D in the body can make bones very soft. These conditions are called osteomalacia in adults and rickets in children.

Some research shows that not getting enough vitamin D may be linked to illnesses such as some cancers, diabetes, and heart disease.

How much vitamin D do you need?

The amount of vitamin D people need changes with their age.

Recommended Intakes for Vitamin D

Life stage	Recommended Dietary Allowance IU/day
Birth to 12 months	400
1 – 70 years old	600
>70 years old	800
Pregnant and Breastfeeding women	600

International Units=IU
Source: National Academy of Science (2010)

Too much vitamin D can lead to health problems. This table shows the guidelines for the Upper Intake Levels for Vitamin D.

Upper Intake Levels for Vitamin D

Life stage	Upper Intake level (IU/day)
Birth to 6 months	1000
6 to 12 months	1500
1 – 3 years	2500
4 – 8 years	3000
All other groups	4000

International Units=IU
Source: National Academy of Science (2010)

Where can you get vitamin D?

You can get vitamin D three ways:

1) Exposure of skin to sunlight

Your body makes vitamin D when your skin is exposed to the sun. Most people meet their vitamin D needs by getting 10-15 minutes of sun exposure on their face and arms for two or three days a week. The amount of vitamin D your body makes due to sun exposure depends on the time of day, time of year, and where you live. Less vitamin D is made in winter and the farther north of the equator you live.

Low vitamin D levels are linked with low sun exposure: people who stay indoors, have dark skin tones, cover their skin, use sunscreen, and fully breastfed infants past 6 month. Older adults (50+ years), cannot make as much vitamin D as younger people.

2) Food and Beverages

There are very few foods that have vitamin D.

Food Sources of Vitamin D

Food	Vitamin D (IU)
Egg yolk, cooked, 1 large	41
Cereal, fortified, ¾ - 1 cup	40 or more
Liver, beef, cooked, 3.5 ounces	49
Orange juice, fortified with vitamin D, 1 cup	137
Milk, nonfat, reduced fat, and whole, fortified, 1 cup	115-124
Tuna fish, canned in water, 3 ounces	154
Sardine, canned in oil, 3.5 ounces	332
Salmon (sockeye), cooked, 3 ounces	447
Mackerel, cooked, 3 ounces	388

Source: U.S. Department of Agriculture

3) Pills

If you do not get enough vitamin D from the foods you eat or are not in sun you may need to take a vitamin D pill.

Vitamin D pills come in two forms, vitamin D2 and vitamin D3. Both work well for bone health. As with any pill, ask your doctor before you start taking any new pills.

If you think you are at risk for low vitamin D, ask your doctor if you should have your vitamin D levels checked.

Summary

Getting enough calcium, vitamin D, and exercise will help you have healthy bones.

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