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## Vitamin D

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Vitamin D is a fat-soluble vitamin that helps the body absorb calcium. Fat-soluble vitamins are stored in the body's fatty tissue.

### Function

In addition to helping the body absorb [calcium](#), vitamin D also helps the body keep the right amount of calcium and [phosphorus](#) in the blood.

### Food Sources

Vitamin D is found in the following foods:

- Dairy products
  - Cheese
  - Butter
  - Cream
  - Fortified milk (all milk in the U.S. is fortified with vitamin D)
- Fish
- Oysters
- Fortified cereals
- Margarine

### Side Effects

[Vitamin D deficiency](#) can lead to [osteoporosis](#) in adults or [rickets](#) in children.

Too much vitamin D can make the intestines absorb too much calcium. This may cause high levels of calcium in the blood. High blood calcium can lead to calcium deposits in soft tissues such as the heart and lungs. This can reduce their ability to function.

[Kidney stones](#), [vomiting](#), and muscle weakness may also occur if you have too much vitamin D.

### Recommendations

Vitamin D is also known as the "sunshine vitamin" because the body manufactures the vitamin after being exposed to sunshine. Ten to 15 minutes of sunshine 3 times weekly is enough to produce the body's requirement of vitamin D. However, many people living in sunny climates still do not make enough vitamin D and need more from their diet or supplementation.

The Food and Nutrition Board at the Institute of Medicine recommends the following dietary intake for vitamin D as cholecalciferol. (One microgram of cholecalciferol is the same as 40 IU of vitamin D.)

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### Infants

- 0 - 6 months: 5 micrograms per day (mcg/day)
- 7 - 12 months: 5 mcg/day

### Children

- 1 - 13 years: 5 mcg/day

### Adolescents and Adults

- Males and Females age 14 to 50: 5 mcg/day
- Males and Females age 51 to 70: 10 mcg/day
- Males and Females age over 70: 15 mcg/day

Specific recommendations for each vitamin depend on age, gender, and other factors (such as pregnancy). In general, those over age 50 need higher amounts of vitamin D than younger persons. Ask your health care provider which amount is best for you.

### Alternative Names

Cholecalciferol

### References

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