

Calcium and Vitamin D

Why do I need calcium and vitamin D?

Calcium and vitamin D are important for bone health. Nerves, muscles, and blood vessels need calcium to work. Vitamin D helps the body absorb calcium, and is needed for immune system function. There is some evidence that vitamin D helps prevent cancer and cardiovascular disease.

What are sources of calcium and vitamin D?

Calcium is found in foods. Dairy products are good sources. Eight ounces of yogurt (228 gram) or milk (1 cup [236 mL]), or a 1.5-oz. (43 gram) serving of cheese, can provide around 300 mg. Fortified orange juice can provide 300 mg per 8-oz. (236 mL) serving. **Vitamin D** is made by sun-exposed skin and is found in some foods. One of the best sources is salmon. A 3-oz. (86 gram) serving of sockeye salmon provides almost 800 IU. A 3-oz. serving of tuna canned in water provides about 150 IU. Dairy products fortified with vitamin D are good sources. Examples include a cup of fortified milk (115 to 124 IU), a cup of fortified orange juice (80 IU), or 6-ozs. (171 grams) of fortified yogurt (80 IU). Calcium and vitamin D are also available as supplements.

Do I need a supplement? Are they safe?

Many people are low on **vitamin D**. It is hard to get enough vitamin D from food, and most people don't get much sun exposure because they use sunscreens, spend long hours indoors, or live at a northern latitude. Most people need a vitamin D supplement. Ask if you should have your vitamin D level checked. People typically get 300 mg **calcium** from their diet daily, not including dairy. If you include two servings of high-calcium foods (e.g., dairy), you can get around 900 mg per day. Supplementation with just 300 mg of calcium daily, or adding a third high-calcium serving, will provide 1200 mg daily. You may have heard calcium supplements are unsafe. While there has been negative press about heart attacks and prostate cancer, calcium supplements have not been proven to be unsafe. But don't go overboard with calcium supplements; get your calcium from diet when possible. However, avoid calcium supplements from coral or dolomite (a kind of limestone); they can contain heavy metals like lead.

How do I choose a calcium or vitamin D supplement?

Most **calcium** products contain calcium carbonate (e.g., *Tums*, *Caltrate*) or calcium citrate (e.g., *Citracal*). Both work. Calcium carbonate is cheap and provides the most calcium per dose. (Read the product label to check the calcium content "per serving," as this can vary depending on the type of calcium you select.) Calcium citrate may be better for patients who don't absorb calcium as well, like older people

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or those on heartburn medications (e.g., omeprazole [*Prilosec*; *Losec* (Canada)], ranitidine [*Zantac*], others). Calcium is best absorbed if no more than 500 mg is taken at a time. Some supplements contain other ingredients (e.g., magnesium, vitamin K), but these don't work any better than those with just calcium. **Vitamin D** is available over-the-counter in combination with calcium or by itself. There are also high-dose vitamin D products that are prescribed if you have low vitamin D levels. It is okay to take a multivitamin or eat vitamin D-containing foods while taking prescription-strength vitamin D. Vitamin D is available as either vitamin D2 or vitamin D3. Either can be used. Look for a vitamin D supplement that is USP Verified (in Canada, a product with a Natural Product Number [NPN]). These products meet certain quality standards.

How much calcium and vitamin D do I need?

Women up to 50 years old and men up to age 70 should aim for 1000 mg of calcium daily. Women over 50 years old and men over 70 should aim for 1200 mg of calcium daily. The vitamin D RDA (recommended dietary allowance) has recently been increased to 600 IU daily for adults under age 70 and 800 IU daily for people over age 70 to keep bones strong. But most experts recommend that adults get 800 IU to 2000 IU of vitamin D daily for optimal health benefits.

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