

Calcium Supplements

Also Known As: Calcium carbonate or calcium citrate

Calcium is needed to develop and maintain bone strength and bone mass. When you get enough calcium it helps prevent osteoporosis. This is a loss of bone mass that can lead to fractures. Osteoporosis is most common in post-menopausal women. However, it can also occur in anyone, including men, due to medication or illness. Some of the risk factors to get osteoporosis include:

- Having a slender build.
- Being of Northern European or Asian descent.
- Having fair skin.
- Early menopause.
- Taking corticosteroids for a long period of time.
- Leading an inactive lifestyle.
- Not getting enough calcium in your diet or dietary supplements.
- Smoking.
- Drinking too much alcohol.

Calcium is best absorbed through the foods we eat. You may find it difficult to get the recommended level of daily calcium through diet alone. Therefore, your doctor may suggest that you take a calcium supplement. You do not need a prescription for this. But your doctor will tell you how much you should take. Vitamin D is essential to help your body absorb calcium. Although exposure to sunlight produces vitamin D in the skin, it may not be enough. Your doctor may instruct you to take:

- A multivitamin with vitamin D.
- Vitamin D tablets.
- Calcium pills with vitamin D added.

The most common calcium supplements are:

- Calcium carbonate.
- Calcium citrate.

Some antacids, such as Tums[®], are inexpensive sources of calcium (calcium carbonate).

How It Is Given:

Orally, by mouth

Calcium Carbonate

Calcium carbonate has the most calcium. If you take it with meals it is absorbed the best. If you are taking an antacid that has calcium carbonate (Tums®) you do not need to take it with a meal. OsCal® and Caltrate® are brands of calcium carbonate supplements. Try taking calcium citrate instead if you have any of the following with calcium carbonate:

- Abdominal pain
- Gas
- Constipation

Calcium Citrate

Some patients may absorb calcium citrate better than calcium carbonate. This is true for older patients, or those with low stomach acid (e.g. pernicious anemia). It is best absorbed if you take it 30 minutes before a meal. Citracal® is a brand that is available in most drugstores. There are also other brands that you can buy.

Special Points:

- Speak with your doctor before taking calcium supplements if you:
 - Have a history of hypercalcemia (too much calcium in the blood) or myeloma
 - Take diuretics (water pills) or large amounts of antacids for indigestion
 - Have ever had kidney stones
 - Have had problems with your parathyroid glands
- If you are taking a bisphosphonate drug **take your calcium supplement at least 30 minutes after you take it.** Examples of bisphosphonate drugs are:
 - Alendronate (Fosamax®)
 - Risedronate (Actonel®)
- Check with your pharmacist when buying your calcium tablets. The amount of calcium varies with each brand. For example, regular Tums has 500 mg of calcium carbonate but only 200 mg of actual calcium. Therefore, you must take two tablets to get 400 mg of calcium. Other brands of calcium carbonate such as OsCal and Caltrate list the amount of actual calcium in each tablet.
- Take the amount of vitamin D that your doctor recommends. This is usually 800 IU a day. High doses could be harmful. Your doctor may recommend checking your blood level of vitamin D.
- If you are taking more than 500 mg of calcium supplements per day, it is better to take it in divided doses. For example, if you take 1200 mg of calcium each day, take 600 mg in the morning and 600 mg in the evening.
- We do not recommend buying calcium tablets that are made from bone or dolomite. These may contain lead or other harmful metals. Certain health-food store preparations have this problem. Most calcium supplements that you buy in a drugstore have been tested for this.
- Calcium supplements can cause constipation. If you have this side effect, increase the amount of fluid and fiber in your diet. If that doesn't work, speak to your doctor or nurse about a stool softener or laxative.
- Calcium supplements do not replace other medicines for the treatment of osteoporosis.
- Continue doing weight-bearing exercises such as walking.

- If you have a hard time swallowing large tablets, you may try other forms of calcium supplements. Viactiv® is a flavored soft chew that has calcium carbonate. Tums® is another chewable form of calcium. Calcium carbonate also comes in liquid form. You can usually get this through pharmacies but it may require a special order.
- Include foods that are rich in calcium in your diet. If you are lactose intolerant try Lactose-free dairy products. You can also try calcium-fortified orange juice and other foods. Check food labels to see the amount of calcium in foods.
- Subtract the amount of calcium in your diet from the amount of your daily requirement to figure out how much you need to supplement.

Example:	Daily requirement of calcium	1500 mg
	One (8-oz) cup of skim milk	-300 mg
	Calcium intake from your general diet	<u>-200 mg</u>
	Calcium supplement for the day	1000 mg

Calcium-Rich Foods:

The following list includes some foods that are rich in calcium. Since many of them do not have vitamin D, be sure to take in the vitamin with another food or a supplement.

Food	Serving Size	Calcium Content
Yogurt, plain, low fat	1 cup	415 mg
Collards, cooked	1 cup	357 mg
Milk (all forms)	1 cup (8 oz)	300 mg
Canned sardines with bones	3 ounces	275 mg
Cheese		
Swiss	1 ounce	270 mg
Cheddar	1 ounce	200 mg
Calcium-fortified orange juice	1 cup	200 mg
Canned salmon with bones	3 ounces	180 mg
Broccoli, cooked	1 cup	136 mg

If you would like more information on foods that are rich in calcium, ask to speak with a nutritionist.

Resources:

National Institutes of Health
 Osteoporosis and Related Bone Diseases ~ National Resource Center
 Telephone: 202-223-0344 or 800-624-BONE
 Web site: www.osteoporosis.gov

National Osteoporosis Foundation
 Telephone: 202-223-2226
 Web site: www.nof.org



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