

Calcium Supplements

When choosing a calcium supplement, it is important to know the “elemental calcium” content. This amount is generally expressed as “Calcium” on the label and not as “Calcium Carbonate” or “Calcium Citrate” or any other type of Calcium. For instance, Tums contains 500mg of “Calcium Carbonate” which amounts to only 200mg of “elemental calcium”.

The recommendations for calcium intake (i.e. 1000-1500mg/day) are based on “elemental calcium”.

Some Products Available Over-The-Counter

Calcium Carbonate	Elemental Calcium (per tablet)
Generic	600mg
Generic + Vit D (200 or 400 IU)	600mg
Caltrate® 600 + D ₃	600mg
OsCal® + D ₃ (200 IU)	500mg
Tums®	200mg
Tums EX	300mg
Tums Ultra	400mg
Viactiv® (Vit D 500 IU, Vit K 40mcg)	650mg
Calcium Citrate	Elemental Calcium (per tablet)
Generic Calcium Citrate + Vit D (200 IU)	250mg
Citracal® Gummies + Vit D (500 IU)	250mg
Citracal Maximum Plus Vit D (500 IU)	315mg
Citracal Petites + Vit D (250 IU)	200mg
Citracal Plus + Magnesium (40mg) + Vit D (125 IU)	250mg
Citracal Pearls + Vit D (500 IU)	200mg

Other Considerations

- Calcium *carbonate* tablets should be taken with meals to increase the amount of calcium absorbed in the body.
- Calcium *citrate* although more expensive, can be taken without regard to meals.
- Our bodies are not able to absorb more than 500 to 600mg of calcium at one time. If you need to take more than this amount as a supplement, you should divide your doses throughout the day.
- Very few side effects are seen with calcium supplements. The most common side effect is constipation, which can occur more frequently in the elderly. Constipation can be managed by increasing fiber in the diet (eating more fruits, vegetables, and whole grains) or by using a stool softener. If using a fiber laxative such as Metamucil®, do not take at the same time as the calcium supplement. Calcium citrate doesn't tend to cause constipation.
- Calcium can decrease the absorption of some prescription medications such as thyroid pills (Synthroid®, Levoxy®), levothyroxine, phenytoin (Dilantin®), alendronate (Fosamax®), risedronate (Actonel®), digestive enzymes (i.e. Pancrease®), iron, tetracycline and quinolone type antibiotics (ciprofloxacin (Cipro®), levofloxacin (Levaquin®)). General recommendations are to take these medications 2 hours before or at least 4 hours after calcium.
- Calcium requires vitamin D for efficient absorption into your body. Choosing a calcium supplement with vitamin D may help you meet this need.

Your Best Source Of Calcium Is Food!

Calcium is best absorbed along with other nutrients in the foods and beverages you consume each day. And dairy products provide some of the richest sources of calcium. For example, just one cup of plain yogurt contains 450mg of calcium. So, a few servings of dairy products each day could easily fulfill your daily calcium quota.

Unfortunately, not everyone can digest dairy products easily. If you are lactose intolerant or allergic to milk, you might substitute calcium-fortified rice milk or soymilk. Orange juice fortified with calcium also provides a comparable amount of calcium per cup.

And you may be surprised to know that many grains, fruits, and vegetables are good sources of calcium. Below are some good examples of foods that are rich in elemental calcium.

Dairy products

Plain yogurt, 1 cup	415mg
Skim milk, 1 cup	302mg
Cheddar cheese, 1oz	204mg
Swiss cheese, 1oz	270mg
Cottage cheese (low fat), 1 cup	138mg
Vanilla ice cream (low fat), 1 cup	200mg

Grains

Corn bread, 2oz piece	133mg
Whole wheat flour, 1 cup	22mg
Total cereal *, ¾ cup with ½ cup of milk *	1000mg

Vegetables

Broccoli, 1 cup boiled	94mg
Butternut squash, 1 cup	84mg
Spinach, ½ cup frozen, cooked	122mg
Collard greens, ½ cup	174mg

Legumes

Tofu, raw, firm, 1/2 cup	258mg
White beans, 1 cup boiled	161mg
Wax beans, 1 cup canned	174mg

Fruits

Dried figs (10)	269mg
Raisins, 2/3 cup	53mg
Naval orange	56mg
Orange juice with calcium, 8oz	300mg

Fish

Sardines with bones, 2oz	240mg
Salmon with bones, 3oz	203mg

Other

Almonds, 3oz	210mg
Ensure, 8oz (can)	300mg

References: J.A.T. Pennington, Bowes and Church's Food Values of Portions Commonly Used. (New York: Harper and Row, 1989.) * package information european-vegetarian.org/lang/en/info/kit/starter05.php McKinley Health Center Calcium found at mckinley.uiuc.edu/handouts/calcium/calcium.html Medline Plus nlm.nih.gov/medlineplus/ency/article/002412.htm#Food%20Sources

