**Sources of Calcium**

***Food***

Milk, yogurt, and cheese are rich natural sources of calcium and are the major food contributors of this nutrient to people in the United States [[1](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en1)]. Nondairy sources include vegetables, such as Chinese cabbage, kale, and broccoli. Spinach provides calcium, but its bioavailability is poor. Most grains do not have high amounts of calcium unless they are fortified; however, they contribute calcium to the diet because they contain small amounts of calcium and people consume them frequently. Foods fortified with calcium include many fruit juices and drinks, tofu, and cereals. Selected food sources of calcium are listed in Table 2.

| **Table 2: Selected Food Sources of Calcium [**[**2**](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en2)**]** | | |
| --- | --- | --- |
| **Food** | **Milligrams (mg) per serving** | **Percent DV\*** |
| Yogurt, plain, low fat, 8 ounces | 415 | 42 |
| Mozzarella, part skim, 1.5 ounces | 333 | 33 |
| Sardines, canned in oil, with bones, 3 ounces | 325 | 33 |
| Yogurt, fruit, low fat, 8 ounces | 313–384 | 31–38 |
| Cheddar cheese, 1.5 ounces | 307 | 31 |
| Milk, nonfat, 8 ounces\*\* | 299 | 30 |
| Soymilk, calcium-fortified, 8 ounces | 299 | 30 |
| Milk, reduced-fat (2% milk fat), 8 ounces | 293 | 29 |
| Milk, buttermilk, lowfat, 8 ounces | 284 | 28 |
| Milk, whole (3.25% milk fat), 8 ounces | 276 | 28 |
| Orange juice, calcium-fortified, 6 ounces | 261 | 26 |
| Tofu, firm, made with calcium sulfate, ½ cup\*\*\* | 253 | 25 |
| Salmon, pink, canned, solids with bone, 3 ounces | 181 | 18 |
| Cottage cheese, 1% milk fat, 1 cup | 138 | 14 |
| Tofu, soft, made with calcium sulfate, ½ cup\*\*\* | 138 | 14 |
| Ready-to-eat cereal, calcium-fortified, 1 cup | 100–1,000 | 10–100 |
| Frozen yogurt, vanilla, soft serve, ½ cup | 103 | 10 |
| Turnip greens, fresh, boiled, ½ cup | 99 | 10 |
| Kale, fresh, cooked, 1 cup | 94 | 9 |
| Ice cream, vanilla, ½ cup | 84 | 8 |
| Chinese cabbage, bok choi, raw, shredded, 1 cup | 74 | 7 |
| Bread, white, 1 slice | 73 | 7 |
| Pudding, chocolate, ready to eat, refrigerated, 4 ounces | 55 | 6 |
| Tortilla, corn, ready-to-bake/fry, one 6” diameter | 46 | 5 |
| Tortilla, flour, ready-to-bake/fry, one 6” diameter | 32 | 3 |
| Sour cream, reduced fat, cultured, 2 tablespoons | 31 | 3 |
| Bread, whole-wheat, 1 slice | 30 | 3 |
| Kale, raw, chopped, 1 cup | 24 | 2 |
| Broccoli, raw, ½ cup | 21 | 2 |
| Cheese, cream, regular, 1 tablespoon | 14 | 1 |

\* DV = Daily Value. DVs were developed by the U.S. Food and Drug Administration to help consumers compare the nutrient contents among products within the context of a total daily diet. The DV for calcium is 1,000 mg for adults and children aged 4 years and older, but *1500mg is recommended during pregnancy and breastfeeding*.

***Dietary supplements***

The two main forms of calcium in supplements are carbonate and citrate. Due to its dependence on stomach acid for absorption, calcium carbonate is absorbed most efficiently when taken with food, whereas calcium citrate is absorbed equally well when taken with or without food [[4](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en4)]. Calcium citrate is also useful for people with achlorhydria, inflammatory bowel disease, or absorption disorders [[1](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en1)]. Other calcium forms in supplements or fortified foods include gluconate, lactate, and phosphate. Calcium citrate malate is a well-absorbed form of calcium found in some fortified juices [[5](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en5)].

The percentage of calcium absorbed depends on the total amount of elemental calcium consumed at one time; as the amount increases, the percentage absorption decreases. Absorption is highest in doses ≤500 mg [[1](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en1)]. So, for example, one who takes 1,000 mg/day of calcium from supplements might split the dose and take 500 mg at two separate times during the day.

Some individuals who take calcium supplements might experience gastrointestinal side effects including gas, bloating, constipation, or a combination of these symptoms. Calcium carbonate appears to cause more of these side effects than calcium citrate [[1](https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/#en1)], so consideration of the form of calcium supplement is warranted if these side effects are reported. Other strategies to alleviate symptoms include spreading out the calcium dose throughout the day and/or taking the supplement with meals.

***Medicines***

Because of its ability to neutralize stomach acid, calcium carbonate is found in some over-the-counter antacid products, such as Tums® and Rolaids®. Depending on its strength, each chewable pill or softchew provides 200 to 400 mg of elemental calcium. As noted above, calcium carbonate is an acceptable form of supplemental calcium, especially for individuals who have normal levels of stomach acid.