

Nutritional Nuggets

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Bone Up on Calcium



Calcium is a mineral in your body that makes up your bones and keeps them strong. The human body contains more calcium than any other mineral. Ninety-nine percent of your body's calcium is stored in your bones and teeth. The remaining 1% is found in your blood and soft tissues and is essential for muscle contraction, blood clotting and transmission of messages by the nervous system.

There are only two ways you can get this essential 1% of circulating calcium:

- From the calcium in your diet
- From the calcium in your bones

Calcium in your diet spares, or protects, the calcium in your bones. Your body regularly tears down and builds bones to make calcium available for your body's functions. Bones are living tissue and calcium is deposited and withdrawn on a continual basis from your skeleton, much like money is drawn from a bank account. If you don't get enough calcium from the food you eat, your body automatically takes calcium from your bones or "withdraws" calcium from the bank. Over a period of years, if your body continues to tear down more bone than it replaces, your bones become weak and can break easily. This leads to osteoporosis, a crippling bone disease characterized by porous, fragile bones. Approximately 25 million American women and 5 million American men have some degree of osteoporosis.

Calcium actually does much more than strengthen your bones and teeth.

- People with higher calcium intakes generally weigh less and have less body fat.
- Dietary calcium may decrease your risk of developing colon cancer.

How much calcium do I need?

The National Academy of Sciences recommends the following daily calcium intake based on your age.

Age (years)	Calcium Recommendation
Children, 1-3	500 mg.
Children, 4-8	800 mg.
Preteens/teens, 9-18	1,300 mg.
Adults, 19-50	1,000 mg.
Adults, 51 and over	1,300 mg.
Pregnant or lactating women, 18 or younger	1,300 mg.
Pregnant or lactating women, 19 or older	1,000 mg.

The most recent government survey of the eating habits of Americans confirms that most people are not getting enough calcium. Teenagers, young women and post-menopausal women in particular are consuming less than their bodies need.

Are you getting the calcium you need? On average, if you're **not** drinking three glasses of milk per day (or a calcium-fortified milk substitute), or eating yogurt or cheese, you're probably not getting enough.

Why is calcium so important for children and teens?

From birth until about age 18, bones are forming and growing. Calcium is essential to the bone-building process. As children grow, it is important that their diet remain high in calcium.

Unfortunately, the calcium intake of most Americans peaks at age eight. While preschoolers have most of their diet chosen by a parent, by age eight, children are making more decisions on their own. They often prefer juice or soda to milk with lunch and they frequently choose snacks that are not good sources of calcium.

During late adolescence through young adulthood, adult bone is formed and reaches its maximum strength and density. However, the period of building toward peak bone-mass continues until about age 30. After that point, calcium is steadily lost from your bones. The calcium that you provide to your bones when you are young determines how well they will hold up later in life. If you don't get enough calcium when you're a child or teenager, you will be more likely to develop osteoporosis later in life. Osteoporosis has been described as a pediatric disease that appears in old age. Due to the lack of calcium in the diets of children and teens, the number of broken and fractured bones experienced by adults continues to increase.

Along with adequate calcium intake, physical activity also influences bone mass. Weight-bearing exercise such as dancing, weight-lifting or running can help reduce bone loss.

Where is calcium found?

The most available source of calcium in our food supply comes from milk and foods made with milk. Because these dairy products are one of the easiest ways to meet your calcium needs, 2-3 servings of lowfat milk, yogurt and cheese are recommended every day.

You can get enough calcium in your diet even if you can't tolerate milk. If you are lactose intolerant, you can take lactase enzyme replacement when you eat or drink dairy products or you can choose dairy products with lactase enzyme added. Those who are allergic to milk or are strict vegetarians can also get enough dietary calcium by choosing non-dairy beverages with calcium added (fortified rice or soy milk). Tofu processed with calcium is another good option.

Some foods, such as orange juice, bread, and ready-to-eat cereals, are not normally good sources of calcium but may have had calcium added. Since these products vary in calcium content, check the label on the carton or package.

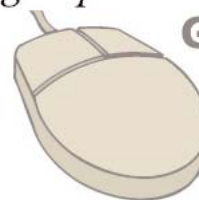
What foods are high in calcium?



Calcium Content	Food	Serving Size
300 mg.	Milk-skim, 1%, 2%, whole, buttermilk, chocolate, calcium fortified rice/soy milk, Lactaid	1 cup
	Swiss cheese	1 oz. or 1 slice
	Yogurt	8 ounces
250 mg.	Cheese pizza	1 slice
	Firm cheese (cheddar, gouda, edam)	1 oz.
	Orange juice, fortified with calcium	1 cup
	Tofu, made with calcium	½ cup
150 mg.	Baked beans	1 cup
	Collard greens, frozen	½ cup
	Figs, dried	6 medium
	Ice milk, frozen yogurt	½ cup
	Macaroni & cheese	½ cup
	Processed cheese (American)	1 oz. or 1 slice
	Pudding made with milk	½ cup
	Soup made with milk	1 cup
	Soft or semi-soft cheese (ricotta, feta, mozzarella)	1 oz.
75 mg.	Almonds	1 oz.
	Bok choy or kale, cooked	½ cup
	Cottage cheese	½ cup
	Ice cream	½ cup
	Parmesan cheese	1 tbsp

Source: *Bowes and Church's Food Values of Portions Commonly Used*. 17th edition, 1998.

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