

Eat a Diet Rich in Calcium

Here's Why:

Calcium is the most prevalent mineral in the human body. It plays an important role in maintaining good health. For example:

- Calcium is essential to build and maintain strong bones at all stages of life, and therefore help prevent and/or manage osteoporosis.
- Calcium helps reduce your risk for these serious health conditions:
 - High blood pressure
 - Heart disease
 - Kidney stones
 - Possibly, colon cancer
 - Eclampsia (a severe, life-threatening blood pressure disorder in pregnant women associated with seizures)*

In addition, preliminary research suggests that calcium and vitamin D supplementation may help to optimize blood glucose metabolism.

According to the National Academy of Sciences, the majority of Americans do not meet their calcium requirements. The recommended intakes for calcium are:

Age	<u>Adequate Intake</u> (mg/day)
0-6 months	210
6 months-1 year	270
1-3 years	500
4-8 years	800
9-18 years	1,300
19-50 years	1,000
51+ years	1,200
Pregnancy and Lactation 14-18 years	1,300
Pregnancy and Lactation	1,000

19-50 years	
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Here's How:

Food Sources of Calcium

Dairy foods—milk, yogurt, and some cheeses—are the best dietary sources of calcium. These foods are also rich in vitamin D, which helps the body absorb calcium.

Food	Portion size	Amount of calcium (mg)
Yogurt	1 cup	300-400
Milk	1 cup	300-400
Macaroni and cheese, homemade	1 cup	362
Parmesan cheese	1 tablespoon	336
Eggnog, nonalcoholic	1 cup	330
Chocolate milk	1 cup	300
Ricotta cheese	½ cup	300
Powdered milk	¼ cup	290
Cheddar cheese	1 ounce	250
Swiss cheese	1 ounce	250
Provolone cheese	1 ounce	215

Cheese pizza	1/6 of a frozen pizza	210
Mozzarella cheese	1 ounce	175
American cheese	1 ounce	160
Cottage cheese	1 cup	120
Frozen yogurt, soft serve	½ cup	100
Ice cream	½ cup	80

Absorption of calcium from some other dietary sources is not as great as that from dairy foods. Specifically, dark green vegetables contain oxalates, and grains contain phytates, which can bind with calcium and decrease their absorption. However, these foods still provide a good way to add calcium to your diet.

Read the Nutrition Facts label on tofu and fortified products to determine specific calcium levels of these foods.

Food	Portion size	Amount of calcium (mg)
Carnation breakfast bars	1.3 ounce bar	500
Tofu, regular, processed with calcium	½ cup	435
Calcium-fortified soy milk	1 cup	250-300
Salmon, canned with edible bones	3 ounces	212
Calcium-fortified orange juice	¾ cup	200
Total raisin bran cereal	1 cup	200
Blackstrap molasses	1 tablespoon	172
Pudding, from cook & serve mix	½ cup	150
Dried figs	5 figs	135
Tofu, regular, processed without calcium	½ cup	130
Anchovies with edible bones	3 ounces	125
Turnip greens, boiled	½ cup	100
Milk chocolate bar	1.5 ounces	85

Okra, boiled	½ cup	77
Tempeh	½ cup	77
Kale, boiled	½ cup	70
Mustard greens, boiled	½ cup	65
Orange	1 medium	50
Pinto beans	½ cup	45

Tips for Increasing Your Calcium Intake

- When making oatmeal or other hot cereal, use milk instead of water.
- Add powdered milk to hot cereal, casseroles, baked goods, and other hot dishes.
- Make your own salad dressing by combining low-fat plain yogurt with herbs.
- Add tofu (processed with calcium) to soups and pasta sauce.
- If you like fish, eat canned fish with bones on crackers or bread.
- For dessert, try low-fat frozen yogurt, ice cream, or pudding.
- In baked goods, replace half of the fat with plain yogurt.

Dealing with Lactose Intolerance

Some people have difficulty digesting lactose, which is the main sugar in milk and some dairy products. This occurs when the body does not produce enough of the enzyme lactase to properly digest lactose. People with this condition, called lactose intolerance, may experience nausea, cramping, bloating, abdominal pain, gas, and diarrhea. This can occur anywhere from 15 minutes to several hours after eating milk or milk products.

If you have lactose intolerance, take the following steps to be sure you meet your calcium needs:

- Eat dairy foods along with a meal rather than alone; the presence of other foods in the digestive tract can make it easier for your body to tolerate the lactose.
- Eat smaller portions of dairy foods. Most people find that they are able to tolerate ½ cup or ¾ cup of milk at a time, several times during the day, rather than 1 cup or more in one sitting.
- Choose aged cheeses, such as Swiss, Colby, Parmesan, and cheddar, which have most of their lactose removed during processing.

- Try dairy foods made with live, active cultures, such as yogurt and buttermilk. The "friendly" bacteria in these foods help to digest the lactose. These foods should have a "Live and Active Cultures" label.
- Be sure to include nondairy sources of calcium in your daily diet.

Taking Supplements

If you are unable to meet your calcium needs through dietary sources, ask your doctor if you should take a calcium supplement. Some points to remember when choosing and using a calcium supplement include:

- Since the amount of calcium differs among products, check the label.
- Avoid supplements with dolomite or bone meal; they may contain lead.
- Choose products that contain USP notation; the best supplements meet the standards of the US Pharmacopeia (USP).
- Check your vitamin D intake, too. This vitamin is essential for absorption of calcium. Milk is a great source of vitamin D, as is sunlight.
- If you take both calcium and iron supplements, take them at different times of the day, because they can impair each other's absorption.
- If you take more than 500 mg of supplemental calcium, space it out throughout the day; it's better absorbed that way. The supplement is also best absorbed with food, so take one tablet with breakfast and another with dinner.

RESOURCES:

National Dairy Council
<http://www.nationaldairycouncil.org>

National Institute of Child Health & Human Development
<http://www.nichd.nih.gov/milk>

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Updated section on *Here's Why* on 7/6/06 according to the following study, as cited by DynaMed's Systematic Literature Surveillance: Villar J, Abdel-Aleem H, Merialdi M, et al. World Health Organization randomized trial of calcium supplementation among low calcium intake pregnant women. *Am J Obstet Gynecol*. 2006;194:639-649.

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