

How to Prevent Osteoporosis

Steps you can take now to strengthen your bones and benefit your overall health

What is Osteoporosis?

Osteoporosis is a gradual weakness of bones, causing them to become fragile, increasing the likelihood of fracture. The good news is that you can do something to prevent it from happening.

Diet

A person's peak bone mass occurs between the ages of 19 and 30. It is essential to meet calcium requirements. As one ages, calcium absorption slows down. It is important to eat a balanced diet, especially foods high in calcium and vitamin D through adulthood and later in life.

Bones get stronger with increased activity. Add weight-bearing activities such as dancing, walking, hiking and tennis to your daily routine. Also, exercises that improve balance and coordination like tai chi, swimming and yoga can help reduce falls and reduce the risk of fractures.

Exercise

Supplements

Milk and milk products are the best source of calcium and vitamin D. Not many adults consume the required 3 to 4 servings of milk per day. **Take a calcium supplement** to help reach your daily calcium requirements. Provincial nutrition surveys indicate that as many as 80% of Canadian women under 50 years old do not consume enough calcium on a daily basis¹.

Vitamin D

Vitamin D increases calcium absorption by as much as 30% to 80%². Vitamin D is naturally made in our skin after sun exposure. Canadians are not exposed to adequate sunshine, which is the main source of vitamin D. Small amounts are also present in foods such as margarine, eggs and fish. However, it is difficult to meet the daily requirements for vitamin D from food alone.

Daily Calcium and Vitamin D Needs for Males and Females

AGE	Recommended Daily Intake of Elemental Calcium*	Recommended Daily Intake of Vitamin D*
1 to 3 years	500 mg	-
4 to 8	800 mg	400 IU
9 to 18	1,300 mg	400 IU
19 to 50	1,000 mg	400 IU
51 to over 70	1,500 mg	800 IU
Pregnancy and Lactation	1,000 - 1,300 mg	400 IU

* 2002 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada CMAJ 2002; 167:S1-S34



Composition of Caltrate (per tablet):

Now with MORE Vitamin D

	Caltrate Select®	Caltrate Plus® (Tablets & Chewables)	Caltrate® Soft Chews	Caltrate® with Vitamin D Tablets	Caltrate®
Elemental Calcium	600 mg	600 mg	600 mg	600 mg	600 mg
Vitamin D ₃	400 IU	400 IU	400 IU	200 IU	
Minerals (bone fortifying)		50 mg Magnesium			
		7.5 mg Zinc			
		1.0 mg Copper			
		1.8 mg Manganese			
Cost per Tablet	approx. 32¢	approx. 27 - 32¢	approx. 27¢	approx. 27¢	approx. 25¢

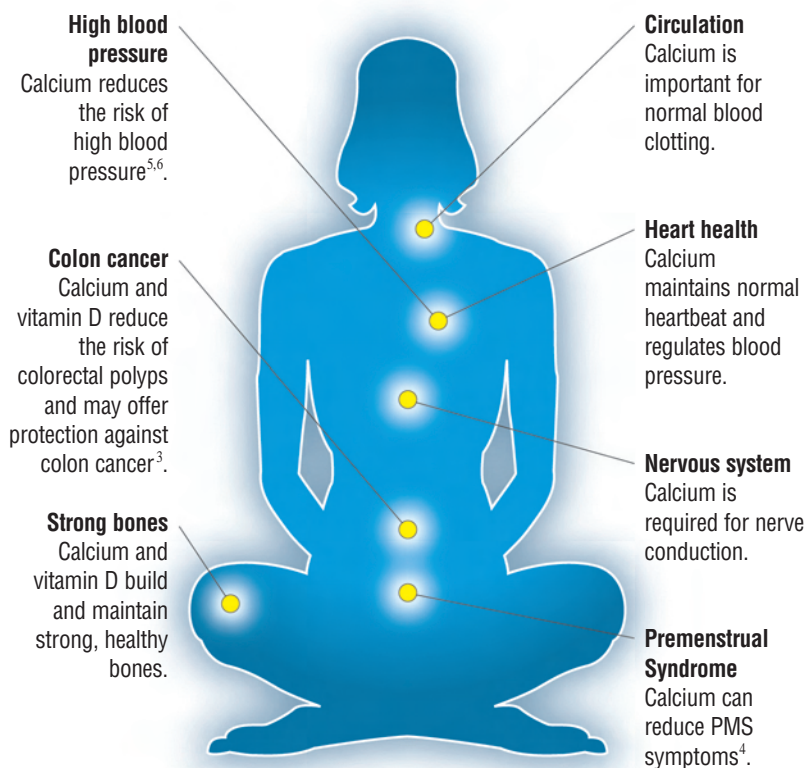
Cost of Foods : 250 ml of milk = 79 ¢ 50 g of cheese = 84 ¢ 1 cup of coffee = \$ 1.35 1 cup of yogurt = 89 ¢

Dosage: One or two tablets daily at mealtime or as recommended by a physician. If taking two tablets daily, take each tablet at different times of the day.

Did you know ...

- The most concentrated form of supplementary calcium is calcium carbonate.
- When consumed with food, calcium carbonate is equally as absorbable as calcium citrate⁷. Therefore, you only need 2 tablets daily to get your calcium requirements; unlike calcium citrate, which may require up to 6 tablets daily.
- Calcium carbonate used in Caltrate® products is mined from the earth and not from oyster shells or shellfish.
- Caltrate does not contain gluten, lactose, peanut oil, potassium, preservatives or tartrazine and is suitable for sodium-restricted diets.

Calcium ~ More than strong bones:



Calcium Content of Some Common Foods⁸

	Amount	Calcium (mg)
Dairy		
Yogurt - plain - 2%, 1%	3/4 cup - 175 g	320
Milk - 2%, 1%, skim	1 cup - 250 ml	315
Cheese - Cheddar, Edam, Gouda	5cm x 2cm x 0.5cm	370
Ice cream, vanilla	1/2 cup - 125 ml	90
Fish and Alternatives		
Salmon, Sockeye, canned	1/2 cup - 125 ml	180
Sardine, Atlantic, canned in oil	1.6 oz - 48 g	180
Almonds, dry roasted, salted	1/2 cup - 125 ml	200
Navy Beans, canned	1 cup - 250 ml	130
Tofu, firm, made w/magnesium chloride	4.5cm x 4cm x 4cm	160
Fruits and Vegetables		
Orange, raw	1 fruit	50
Papaya, raw	1 fruit	75
Broccoli, cooked	1/2 cup - 125 ml	50
Spinach, cooked	1/2 cup - 125 ml	125
Breads and Cereals		
Pita, white	1 pita	50
Bread, whole wheat	1 slice	20

Reference:

¹ National Institute of Nutrition. RAPPORT V.13 No.1 P.3-4, Winter 1998.

² Osteoporosis Society of Canada, 2004.

³ Calcium Polyp Prevention Study Group. "Calcium Supplements For The Prevention Of Colorectal Adenomas." The New England Journal of Medicine V.340 No.2, P.101-7, January 14, 1999.

⁴ Thys-Jacobs, S., P. Starkey, D. Bernstein, J. Tian, "Calcium Carbonate And Premenstrual Syndrome: Effects On Premenstrual And Menstrual Syndrome Symptoms." American Journal of Obstetrics and Gynecology V.179 P.444-452, 1988.

⁵ Sibai BM, Ewell M, Levine RJ, et al. "Risk factors associated with preeclampsia in healthy nulliparous women." The Calcium for Preeclampsia Prevention (CPEP) Study Group. Am J Obstet Gynecol 1997;177:1003-10.

⁶ North American Menopause Society. "The Role Of Calcium In Peri- And Postmenopausal Women: Consensus Opinion Of The North American Menopause Society." Menopause V.8 No.2, P.84-95, March-April 2001.

⁷ Heaney, R.P., R.R. Recker and C.M. Weaver, "Absorbability of Calcium Sources: The Limited Role of Solubility." Calcif. Tissue Int., 46:300-304, 1990.

⁸ Canadian Nutrient File, Health Canada Website, 2004. www.hc-sc.gc.ca/food-aliment