

Fast Track Your Nutrition

Calcium – No one ever cried over spilled pop!®

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What is Calcium & Why do we need it ?

Calcium is a mineral that the body uses for several crucial functions. It is involved in:

- muscle contraction
- healthy heart function
- blood pressure control
- nerve conduction
- blood clotting
- strong bones and teeth

About 95 % of the body's calcium is stored in the bones, most of the rest circulates in the bloodstream.

Osteoporosis – “brittle bones”

If you don't get enough Calcium (and Vitamin D) regularly, then over many years, you can develop osteoporosis. This affects women mostly, but men are not immune!

It is estimated that 25% of women over the age of 50 have osteoporosis, and it can cause broken hips and wrists as well as spinal problems. If you are younger than 50, don't think it won't happen to you! If you don't get enough calcium through your life it definitely can. You're at particularly high risk if you:

- have small bones
- don't do weight bearing exercise
- get less calcium than you should
- eat a lot of salty foods
- drink pop coffee or tea every day
- eat a lot of animal protein

Do your bones a favour! Get enough Calcium – EVERY DAY – (especially as a teenager) and optimize your bone mineral density!



Where do we get Calcium?

There are 2 sources:

- your diet
- supplements

The food group that provides the most easily absorbed calcium is dairy products. For instance, milk provides not only Calcium but 15 other essential nutrients as well, including protein, carbohydrate, most of the “B” vitamins, vitamins A & D, Magnesium, Phosphorus, and Zinc → all essential nutrients for an athlete.

Dairy foods are not the only source of Calcium in the diet. The meat and alternates food group includes several foods with calcium such as salmon and canned sardines with bones, beans, nuts, seeds, and soy products. The fruits and vegetables group does too, including oranges, cabbage, broccoli, bok choy, and spinach. The Calcium from non-dairy foods is less “bio-available” though, which means that the body doesn't absorb and use it as easily. Even so, these foods definitely should be a part of your balanced diet, because they have lots of other essential nutrients.

How much Calcium is Enough?

The Recommended Daily Intake (RDI) is:

- 9-18 years old: 1300 mg
- 19-50 years old: 1000 mg
- 51 + years old: 1200 mg

Canada's Guide to Healthy Eating suggests you get 2-4 servings of milk and milk products daily to meet your needs for Calcium.

What's a serving? 250 ml milk, 50 g of firm cheese, 175 g yogourt or 250 ml of frozen yogourt or ice milk. Be good to your heart, and choose low fat dairy products!

Dairy Products

<u>Food</u>	<u>Serving Size</u>	<u>mg</u>
Cheese (firm)	50g	287-350

Milk	250 ml	315
Milk Powder	45 ml	308
Buttermilk	250 ml	303
Chocolate milk	250 ml	301
Yogourt (plain)	250 g	296
Yogourt (drink)	250 ml	274
Yogourt (fruit)	175 g	240
Mac & Cheese	375 g	237

Non-Dairy Products

Food	Serving	mg
Calcium fortified Beverages (soy/rice)	250 ml	300
Sardines/Salmon (canned with bones)	100g	225
Cottage cheese	250 ml	150
Tofu with calcium	75 g	150
Baked beans, soy beans, white beans	250 ml	150
Sesame seeds	125 ml	80
Chick peas	250 ml	75
Almonds	70 ml	75
Kidney beans, lentils or Lima beans	250 ml	50
Orange	1 medium	50
Broccoli	125 ml	38

Calcium + Vitamin D – Vitamin D plays a crucial role in regulating how the body uses calcium. There are not too many dietary sources of Vitamin D, so milk is fortified with it. Dietary sources include: fish and fish oils, liver and egg yolks. You also get Vitamin D from summer sunlight. However an excess of Vitamin D from supplements can be toxic.

NOTE: Yogourt is not fortified with Vitamin D.

Dairy products like yogourt, cottage cheese, and cheese, as well as other foods that are made with these have less vitamin D than milk, though, and Vitamin D is needed to help the body properly use and store calcium.

What about Calcium Supplements?

If you are allergic to the protein in cow's milk, it can be hard to get enough easily absorbed dietary calcium, as well as Vitamin D, as supplementing the milk supply provides much of our Vitamin D. You may need calcium supplements to make up the difference between what you need, and what you can get through non-dairy sources.

Some people can't digest lactose, the naturally occurring sugar found in milk. This is due to decreased levels of lactase, the enzyme needed to break down milk sugar. Drinking milk can cause these folks to have

abdominal bloating, cramping, and diarrhea. Often, eating yogourt and cheese will cause fewer or no symptoms, because there is less lactose in these foods than in milk. As well, using lactase treated milk, or taking lactase tablets when drinking/eating dairy products can help. You can buy lactase treated milk in many grocery stores. Most drug stores carry the lactase in fluid and pill form, so ask your pharmacist. If these products don't help, and you can't meet your daily dietary calcium needs, you may also benefit from supplements. If you need calcium supplements you may also need vitamin D supplements.

Go get a referral for a nutrition check-up by a Registered Dietitian. Check at your grocery store, many now employ dietitians who can answer your questions.

If you need a supplement, realize that there are many types, with varying percentages of absorbable calcium:

Supplement	%	
Calcium Carbonate	40	(can cause constipation)
Calcium Chloride	36	(can irritate stomach)
Calcium Citrate	21	(Good if long term use is needed)

Note: Some Calcium supplements from Oyster shells, bone meal and dolomite have been found to be contaminated. Avoid these sources.

Calcium + Magnesium (2/1 ratio) – the combination of these two minerals are important for women's daily diet.

Eat a variety of the foods listed here. Use some of the hints to increase calcium absorption, and be sure you are getting lots of calcium. Remember – you can

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