



Your Pharmacy
...your neighbour

Health Really Matters™

CALCIUM

How to ensure that this important mineral is working for you.



Calcium is the most abundant mineral in our bodies. About 99% of it is stored in our bones and teeth. The rest is found in the blood, muscle and the fluid between the cells. Besides building strong bones, calcium has other important uses. It helps to regulate our heartbeat, helps clot the blood, stimulates hormone secretions and helps with the sending of nerve impulses throughout the body.

The human body is not able to produce calcium itself and calcium is lost each day through the shedding of our skin, nails and hair and it also leaves our body through perspiration, the urine and the feces. So the question always arises: Are we getting enough calcium through our diet to keep our bones strong and to satisfy all the other needs our bodies have for it?

It is recommended that men up to the age of 50 and pre-menopausal women get 1000mg of calcium per day through their diets and supplements while most men and post-menopausal women should receive 1500mg per day.

Some foods high in calcium include milk, cheese, yogurt, baked beans, fish with bones (salmon, sardines), figs, broccoli, bok choy and broccoli. (See chart)

Calcium Tip: When taking supplements, your body can best handle about 500mg of calcium at any one time so it's preferable to eat calcium-rich foods or take supplements 2-3 times daily rather than all at once. Absorption is best for most calcium when taken with meals.

Also, calcium is better absorbed if there is an adequate supply of vitamin D in the body. Recent research is recommending 1000 units of vitamin D daily. This is enough for optimal calcium absorption. If taking the vitamin D as a separate dose, once daily is adequate. One cup of milk contains about 90 units of vitamin D and about 330mg of calcium.

The most common form of calcium supplement is calcium carbonate. It's also the least expensive. It contains 500mg of calcium per tablet. Some products come with vitamin D included with the calcium. Antacid tablets like Tums or Rolaids also contain calcium but in a lower amount and no vitamin D. These are fine to take as a calcium supplement but it may take more than one tablet to make up a 500mg dose.

Some calcium products come with added magnesium. There is no concrete evidence that magnesium helps the absorption of calcium but it could help those who become constipated while taking calcium. So if you feel your vitamin D daily intake is good, choose the calcium-only product. If not, choose a product with added vitamin D or take your vitamin D as a separate supplement. Our Medicine Centre pharmacists can help you with this.

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OSTEOPOROSIS

Osteoporosis is a disease of low bone mass and deterioration of bone tissue. This leads to fragile bones and increased risk of fractures of the joints particularly the hip, spine and wrist. Approximately 1.4 million Canadians suffer from osteoporosis and it's not just a woman's disease. About 1 in 4 women over 50 have osteoporosis while at least one in eight men over 50 also have the disease.

Called the "silent thief", osteoporosis doesn't develop quickly. You can lose bone mass slowly over the years without feeling any symptoms at all until a bone breaks. By this time, the disease is quite advanced. So early detection is the key to preventing fractures.

Your Medicine Centre pharmacist often sponsors bone density clinics where a special machine is used to measure the bone density in the heel. This is a good indicator of bone health. Using this machine, your bones are compared to the bones of an average young adult. A score called a *T-score*, is calculated. This score describes the density of your bones compared to the average. These *Medicine Centre* bone density clinics provide a good method of early detection of osteoporosis.

NOTE TO YOUNG PEOPLE

Young people can minimize their risk of contracting osteoporosis when they are older by ensuring they get adequate calcium in their diets while they are young. If they aren't big consumers of calcium-rich foods, calcium supplementation is helpful. They should also make weight-bearing exercises part of their lives. This helps keep bones dense and strong. This is a good example of preventing a disease that can be devastating later in life. Look after your bones while you are young and you will reap the benefits when you are older.

TYPES OF CALCIUM

Calcium carbonate is the least expensive and has the most calcium per tablet. Calcium citrate is better absorbed but has less calcium per tablet and costs more. Calcium citrate may be a better choice if you are taking medication that keeps your stomach acid down. It is best absorbed on an empty stomach. Check with our Medicine Centre pharmacist about this.

Milk (skim, 2%, whole)

1 cup: 330mg

Yogurt (whole milk)

1 cup: 275mg

Cheese (cheddar)

1 oz: 211mg

Cottage cheese (creamed)

1 cup: 211mg

Swiss cheese

1 oz 259

Sardines

3.5oz 449mg

Figs (5 medium size)

126mg

Tofu (bean curd)

3.5oz 128mg

Broccoli

½ cup 88mg

Kale (cooked)

½ cup 134mg

FOODS CONTAINING CALCIUM

You can obtain all your daily calcium needs from your diet. This means eating foods and vegetables daily that are rich in calcium. Here are some examples of calcium-rich foods:

Just out of interest, one of the most calcium-rich foods is seaweed kelp. You will get a whopping 1093 mg of calcium in one raw 3.5oz serving! Not everyone's preference.

DRUG INTERACTIONS WITH CALCIUM

Some drugs, including some antibiotics, will not work as well when taken with calcium. Often separating the two by four hours is recommended. Your Medicine Centre pharmacist will bring this to your attention when you get a prescription. Also there are some foods that hinder calcium absorption. Foods high in oxalates like spinach, rhubarb and almonds is one example. Another is foods containing phytates

like legumes (peas, pinto beans, navy beans). These foods should not be eaten at the same time you take your calcium. Leave 1-2 hours between them.

One of the questions our Medicine Centre pharmacists hear is whether or not taking extra calcium will increase calcium deposits on the arteries and lead to heart disease. This is not so. Our bodies are very good at regulating calcium in the blood and this blood calcium does not end up on the walls of our arteries.

SUMMARY

Calcium is a very important mineral for the continued good health of our bodies, especially our bones. Diet is the best way to get calcium into our bodies. If you don't feel you get enough calcium in your diet, check with our Medicine Centre pharmacists for the best calcium supplement for you.