



calcium & osteoporosis

Our bones are constantly wearing away, so calcium from the foods you eat is required to rebuild and maintain a strong healthy bone structure. *Osteoporosis* (porous bones) can develop if the foods you eat don't support bone health. Bones become very fragile and are likely to break from the slightest injury or fall.

Am I at Risk?

If you have an eating disorder you may be at risk of developing bone loss. Although it is easy to think of osteoporosis as a disease that only affects older women, about half of young people with Anorexia Nervosa have osteoporosis. About 85% of partially-recovered Anorexia Nervosa patients have bone mineral deficiencies, even females who have regained their periods and are within 10% of ideal body weight. People with Bulimia Nervosa or other eating disorders are also at risk, especially if they have had Anorexia Nervosa or significant weight loss, or if they have had episodes of lowered hormones (loss of periods in women, loss of sexual functioning in men). The damage caused by osteoporosis is often discovered only after fractures occur, or even later. Hip fractures are painful and easily detected, but lumbar spine fractures may initially be painless. Bone loss can accelerate at any age, due to excessive weight loss and excessive exercise.



What can I do?

Treatment includes weight restoration, normalising body composition (particularly fat content), eating calcium-rich foods, and using calcium and vitamin D supplements. Vitamin D plays an important role in calcium absorption and bone health. It is made by our body through the action of sunlight on the skin, and is found in foods such as mackerel, sardines, eggs, margarine and cheese. Calcium supplements are come in various forms, are usually easy to take and cause few problems. Minimise foods that inhibit absorption of calcium, such as salty food and caffeine. High protein diets also increase calcium loss from the body via urine.

Daily Calcium Requirements:

Children (1-8 yrs)	500-700 mg/day
Adult Men	1000 mg/day
Children (9-13 yrs)	1000-1300 mg/day
Adult Women	1000 mg/day
Adolescents (14-18 yrs)	1300 mg/day
Anorexia Nervosa	1500 mg/day

Sources of Calcium

A well-balanced diet rich in calcium and vitamin D is important for healthy bones. Good sources of calcium include dairy products, canned fish with the bones, almonds and some leafy greens.



FOOD	CALCIUM CONTENT
1 cup (250mL) of milk (whole, hilo, or skim)	310mg
200g tub of natural or fruit yogurt	340mg
40g (2 slices) cheddar cheese	310mg
1/4 cup mozzarella cheese, grated	260mg
1/4 cup ricotta cheese	150mg
1/2 cup tofu or bean curd	320mg
1 cup (250mL) of calcium-enriched soy drink	290mg
1 cup of vanilla ice cream	150mg
1/2 cup custard	130mg
100g (1/4 cup) canned salmon (with bones)	280mg
60g (1/2 small tin) canned sardines (+ bones)	200mg
5 dried figs	190mg
1/4 cup raw almonds	70mg
1/2 cup baked beans, canned in tomato sauce	50mg
1 cup of broccoli	30mg

What if I am Lactose Intolerant?

There is a wide range of UHT and fresh soy milks, yoghurts and ice creams that are lactose free, and these are readily available. It is best if these foods are calcium enriched. Soy based yoghurts are a moderate source of calcium. Powdered soy milks can be added during cooking to cakes, desserts and sauces to increase calcium. For those who cannot tolerate soy milk or prefer cow's milk there are a number of low lactose milk products available. Enzyme drops are also available, and can be added to dairy products to digest the lactose. These may be ordered through pharmacies.

Developed in conjunction with Kate Fleming, Dietitian

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