

## Osteoporosis

Osteoporosis is a disease in which our bones become thin and brittle due to a gradual loss of calcium. Eventually the bones become so weak they break easily as they can no longer support our body's weight or withstand even a slight jolt. Osteoporosis has been called "the silent thief" because you don't know it is happening until a fracture occurs.

**Are you at risk?** Check the risks that apply to you. The more you check off . . . the greater your risk for developing osteoporosis.

Risks	✓	Risks	✓
Female		Little physical activity	
Over 50 years old		Smoking	
Postmenopausal		Excessive use of alcohol or caffeine	
Osteoporosis in the family		Too much protein, sodium, phosphorus in the diet.	
Not enough calcium and vitamin D in the diet		Too little protein in the diet.	

**Reducing your risk.** There are some things you can't do anything about. However, for the risks you can control, make some changes now to reduce your chance of developing osteoporosis later. Getting enough calcium and Vitamin D through diet and/or supplements is essential in helping to prevent osteoporosis.

### How much is enough?

#### Daily Calcium Requirements

Age	9 -18 yrs.	19-50 yrs.	50+ yrs.*
	1,300 mg	1,000 mg	1,500 mg

\* 2002 Clinical Practice Guidelines for the diagnosis and management of Osteoporosis in Canada.

#### Daily Vitamin D Requirements

Age	Birth-50 yrs.	50+ years*
	200 IU	800 IU

\* 2002 Clinical Practice Guidelines for the diagnosis and management of Osteoporosis in Canada.

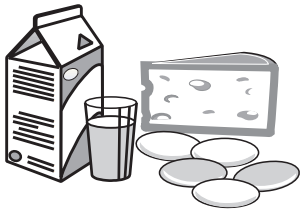
**Why so much?** Canadian women appear to need more calcium to maintain a calcium balance than women in developing countries. This is due to nutrient needs that vary according to such things as lifestyle, genetics and diet. In the case of calcium, our western style diet is high in phosphorus and sodium which increases calcium loss through urine.

Vitamin D is essential for the absorption and utilization of calcium. It can be made in your skin through a chemical reaction activated by sunlight. However, dark Canadian winters, heavy clothing and increased use of sunscreen makes sunlight an unreliable source of Vitamin D. This makes food sources of Vitamin D very important.

**Eating well.** The best way to get calcium and Vitamin D is from dairy products. Listed below are some sources of calcium and Vitamin D. Add up how much you had yesterday. Did you get enough?

## Calcium

Dairy Sources	Non-dairy Sources
Milk, 2%, 1% or skim, 1 cup 314 mg	Beans cooked, 1/2 cup 50 mg (kidney, navy, pinto, garbanzo)
Plain yogurt, 3/4 cup 345 mg	Tofu set with Calcium Sulfate, 1/2 cup 130 mg
Fruit yogurt, 3/4 cup 265 mg	Broccoli, 1/2 cup cooked 50 mg
Ice Cream, 1/2 cup 85 mg	Rutabaga, 1 cup cooked 72 mg
Hard Cheese, 1 1/2 oz. 310 mg	Bok Choy, 1/2 cup 79 mg
Processed Cheese, 2 thin slices 255 mg	Sardines, 8 small 153 mg
Cottage Cheese, 1/2 cup 82 mg	Canned Salmon, 1/2 can 242 mg
Macaroni & Cheese, 1/2 cup 350 mg	Almonds, 1/4 cup 80 mg
Skim Milk Powder, 1/4 cup 220 mg	Brazil Nuts, 1/4 cup 63 mg
	Sunflower & Sesame Seeds, 1/4 cup 32 mg
	Figs, 5 135 mg
	Calcium Fortified Soy or Rice Beverage 300 mg
	Calcium Fortified Orange Juice 300 mg



## Vitamin D

Salmon, canned, drained (half 213 g. tin)	700 I.U.
Milk, 1 cup	100 I.U.
Skim Milk Powder, 1/4 cup	75 I.U.
Margarine, 2 tsp.	55 I.U.
Egg Yolk, 1	25 I.U.
Fortified Soy or Rice Beverages, 1 cup	100 I.U.
Vitamin D Fortified Orange Juice, 1 cup	100 I.U.
Vitamin D Fortified Yogurt, 3/4 cup	100 I.U.

**Are supplements necessary?** If you are not eating enough dairy products or calcium rich foods then a calcium supplement is necessary. Talk with your doctor, pharmacist or registered dietitian. Calcium supplements made with Dolomite and bone meal may contain toxic metals and should be avoided. Choose a calcium supplement containing Calcium Citrate or Calcium Carbonate. It is better to take calcium supplements in divided doses if you are taking more than 500 mg. For example, two 500 mg calcium supplements taken at different meals are better than one 1,000 mg tablet. Calcium Carbonate supplements should always be taken with meals. For those at risk of osteoporosis, it is difficult to meet the daily Vitamin D requirements through diet alone. Therefore, it is recommended that adults over 50, and those at risk of osteoporosis eat according to Canada's Food Guide to Healthy Eating and take a supplement containing at least 400 I.U. of Vitamin D.

Both calcium and Vitamin D are dangerous in large doses. Speak with your doctor, a pharmacist, or a registered dietitian to make sure you are not getting too much of a good thing.

**Be active!** Physical activity is important in keeping bones strong. Physical activity that forces a body to carry its own weight is best. So...walk, skate or dance your way to stronger bones.