

The Silent Thief

Our bones continually go through a cycle of bone loss and bone remodeling. As children, teenagers and young adults bone growth occurs at a faster rate than bone loss or resorption. This is the time when our diet should be full of calcium rich foods in order to finish our second decade of life with the maximum amount of bone mass possible. Once we reach our thirties, the cycle begins to reverse, and bone resorption starts to occur at a faster rate. During this period it is important to continue with a similar diet and be sure to participate in weight bearing exercises to *keep* as much bone mass as possible.

When a woman reaches menopause, bone loss becomes quite rapid due to the decrease in circulating estrogen in the body. Again, it is imperative that women continue with their bone healthy lifestyle, including added calcium and vitamin D, as well as understanding their risk for a fracture and a diagnosis of osteoporosis.

Osteoporosis is known as the “silent thief” because bone loss occurs without any symptoms. Frequently the first sign is a broken wrist or hip or a spinal fracture. Other symptoms include a loss of height of more than 1.5 inches or chronic back pain, both of which can be the sign of a vertebral fracture. Osteoporosis affects 1.4 million Canadians; 1 in 4 women and surprisingly 1 in 8 men. It is a \$1.3 billion hit annually to our health care system, with most of the costs arising from post fracture hospital stays and rehabilitation. It’s a scary fact that 20% of hip fractures result in death and 50% will result in permanent disability. The resultant decrease in the quality of life following a hip fracture due to disfigurement, depression, lowered self esteem and reduced independence, can be devastating.

The first step to keeping bones healthy is to know your risk factors:

- Low bone-mineral density
- Previous fracture (other than skull, facial bone, ankle, finger and toe) as an adult
- History of a previous hip fracture in a patient
- Extreme thinness (less than 127 pounds)
- Current smoking, at any amount
- Calcium or vitamin D deficiency
- Use of certain “bone-robbing” prescription medications (such as steroids) for more than 3 months
- Increased risk of falls (e.g. from poor balance due to dizziness from medications etc.)

Secondly, Osteoporosis Canada recommends bone mineral density screening for anyone over the age of 65 or for anyone, who in consultation with his or her doctor, has multiple risk factors. As there is some variability amongst machines, it is advisable to use the same machine whenever possible with each bone density test.

Regardless of your risk for osteoporosis, many studies have shown that eating a diet rich in calcium and Vitamin D will improve bone density. For some it can be difficult to

incorporate sufficient calcium (1500mg for menopausal women) into a typical diet, so a supplement may be necessary. It is also hard to obtain sufficient Vitamin D from the foods we eat. Vitamin D is also known as “the Sunshine Vitamin”. It typically takes about 15 minutes of sunshine daily (without sunscreen) to keep vitamin D levels adequate. However in our northern climate, the sun is not typically strong enough for the majority of the year to keep us supplied. A supplement of Vitamin D3 may be required. Magnesium supplementation has also shown to be beneficial.

Lastly, it is important to remain “safe” to prevent accidental falls and consequently a fracture. Stay strong by doing weight bearing exercises along with flexibility workouts to improve posture and balance. Keep your home safe by ensuring your home is well lit and clear of obstructions such as scatter rugs and electrical cords. Make your bathroom accessible with grab bars and nonskid strips in wet areas. Lastly ensure that your stairways have sturdy handrails and nonskid treads on the steps.

If you are diagnosed with osteoporosis, prescription medications can be used to prevent bone loss from continuing, but adequate calcium and vitamin D are still necessary to maximize their effectiveness. Adapting the same principles used in maintaining bone mass will not only help to prevent unwanted fractures, but also lead to a long, healthy life.