Bone builders: understanding and preventing Osteoporosis

Most people only think about skeletons around Halloween. But without your bones you couldn't stand, sit, walk, run or dance. They also hold 99 per cent of our body's calcium. When you consider the importance of the skeletal system, taking extra care of your body's foundation is not only smart, it's a key ingredient to a healthier, happier stance.



What is Osteoporosis?

Osteoporosis, which means "porous bones," affects 1.4 million Canadians and occurs when bones—composed of collagen, calcium and protein—deteriorate, becoming weak and brittle.

When we're young, our bones are made faster than they break down, so we have a high bone density. At 25, bone mass levels off. Once we reach 35, our bone mass slowly starts to decline. Bones become thin putting us at greater risk of bone fractures, breaks and compressions.

Warning Signs

Osteoporosis is sometimes called the "silent thief" because there are no symptoms associated with bone loss. Most people don't know they're affected until suffering a fracture or break, but as the disease progresses, there are signs including:

- Back pain
- Loss of height and stooped posture caused by compression of vertebrae
- A curved upper back also known as a Dowager's hump
- Broken bones or fractures caused from minor accidents or falls (i.e., that would not cause bone cracks or breaks in someone without osteoporosis)

Danger Zone

Though the disease can strike anyone at any age there are some factors that increase risk. You should be tested for osteoporosis if you:

- Are over 65
- Have experienced a fracture after age 40
- Come from a family with a history of osteoporosis
- Are a post-menopausal woman
- Have medical conditions associated with osteoporosis such as hyperthyroidism or rheumatoid arthritis (speak to a medical professional)
- Experience low bone mass
- Have a thin, small or frail frame
- Drink alcohol excessively, smoke or have a sedentary lifestyle

Testing and Treatments

Doctors use the Bone Mineral Density (BMD) test—a painless and accurate measure of bone mass—to look for osteoporosis. Not only will it tell you if you have osteoporosis, it can also predict the likelihood you'll develop the disease. Another common test is the heel ultrasound. Your heel is submerged in water and high frequency sound waves detect bone density. This test is quick and easy, and is usually followed by a BMD when low density is found.

Once you've been diagnosed with osteoporosis, you and your health care professional will need to work out the best course of action: one that suits your condition, lifestyle and that can help prevent further bone density loss.

Prevention

After 35, you can't stop bone mass from decreasing entirely, but you can minimize the loss. Follow these steps to keep your resolve and skeleton strong:

Eat well. A diet high in calcium and Vitamin D is vital to maintain healthy, strong bones. Vitamin D is found in cod liver oil, salmon, cheese, fortified beverages and egg yolk. On the calcium front, research shows the average person aged 19-50 needs 1,000 mg of calcium a day while those over 50 need 1,500 mg. Foods rich in calcium include milk, yogurt and broccoli.

Exercise regularly. Anything that pits gravity against your body weight strengthens your bones. Weight-bearing exercises are the most beneficial so try walking, running, dancing or lifting weights. By exercising you also attain better balance and muscle strength which decreases the risk of falling. Not only do you benefit your body, but also your mind: studies show exercise helps to relieve symptoms of depression and stress, which are believed to interfere with calcium absorption. Talk to your doctor about regular exercise that is right for you.

Butt out. Smoking increases bone loss. It prevents the bones from absorbing calcium and in women, slows the amount of estrogen—a hormone thought to decrease bone density loss—the body produces.

Avoid alcohol and caffeine. Caffeine and alcohol, like smoking, prevent the body from taking in calcium. Studies suggest alcohol also decreases bone formation. If you must consume alcohol or caffeine, keep your consumption to a minimum of no more than two drinks or cups of coffee a day.

Stress less. When you experience a great deal of stress—especially for prolonged periods of time—the body sucks calcium from your bones. Stress also increases harmful habits such as smoking, drinking alcohol and overloading on coffee, all of which reduce calcium stores. Once the calcium is gone, the body doesn't replace it. Learn to manage stress by creating healthy relationships, taking time for yourself and creating a realistic schedule to avoid hectic situations. Activities you enjoy such as cycling, gardening or painting can also help you nourish you mind, body and soul.

Deal with depression. Studies show that people who experience depression lose excess bone mass. This may be because the stress hormone cortisol is more prevalent, or because of poor nutrition during depressed periods. If you suspect you are experiencing depression, speak to a professional immediately. There are many treatment options available such as exercise, psychotherapy, and medication that can help you better cope with depression.

Manage pain. Chronic pain is common with osteoporosis after a fracture has healed. This pain interferes with normal life and ranges from bothersome to crippling. Learn to relax through breathing exercises, biofeedback—a therapy that teaches you to control body functions and relieve pain—meditation or gentle exercises like yoga which can help release tension and ease aches and pains.

Seek support. Whether it's sharing the ups and downs of osteoporosis, or swapping suggestions on how to manage your condition, support groups are a great place to find assistance. To find a group nearest you contact your local chapter of Osteoporosis Canada.

Though osteoporosis can sneak up on you, arming yourself with knowledge and a healthy lifestyle is the best way to shut out the silent thief. Be aware of signs related to the condition, pledge to get proper nutrition and exercise and you'll keep your frame standing strong and tall for years to come.