

GRAND ROUNDS

Strong, healthy bones can take you all of the places you want to go well into your golden years. But at some point one in three women and one in five men will suffer from an osteoporotic fracture.

Osteoporosis is a disease that causes your bone tissue to deteriorate, and allows bones to break easily if you happen to fall or suffer some other type of mishap. The most common fractures occur in the hip, spine, shoulder or wrist. And once those bones heal, they most likely will never be as strong as they were before you were injured.

Bone density loss occurs in everyone by their forties and fifties, and a more rapid rate of bone loss occurs in women during menopause, says one of RVH's diagnostic imaging technologists, Debbie Tiernay.

She is one member of the team at the hospital specially trained to perform Bone Densitometry testing for patients. All technologists performing this service at RVH are certified by the International Society for Clinical Densitometry and the Ontario Association of Radiologists. We were one of the first accredited sites in Ontario for bone density testing.

The test is a low-radiation x-ray that provides images of bones in the lower back area and hip—"the best locations to diagnose bone deterioration," says Debbie Howes, another technologist.

Together, the qualified technologists at RVH perform an average of 11 Bone Densitometry tests per day.

At age 65, your physician will send you for baseline bone density testing. In some cases patients can be sent at an earlier age—if, for instance, they have had a noticeable loss in height. If the results appear normal, no further testing is needed for at least another three years. If the three-year follow-up is normal, subsequent testing eligibility is every five years, provided risk factors remain low. Patients identified as higher risk for bone loss should have annual bone density testing.

"Early diagnosis (of severe bone loss) helps to prevent people from being bed ridden later in life," says Howes.

According to Osteoporosis Canada, more than 80 per cent of all fractures after the age of 60 are caused by osteoporosis. Each year, more than 30,000 Canadians break their hip, and the cost to the Canadian health care system for bone loss-related injuries is an estimated \$1.9 billion annually.

However, early diagnosis and treatment consisting of medication and a good diet help to strengthen bone and prevent further deterioration, explains Howes.

Tiernay also recommends promoting strong bones with a "good diet, as well as a regular exercise regimen, no smoking and taking a daily dose of vitamin D and calcium" supplements.

Consuming foods high in calcium such as broccoli, oatmeal, orange juice, salmon and milk products helps to build healthy bones. Performing at least 30 minutes of

physical activity daily will maintain and improve your bone strength. Improving muscle strength with simple weight training exercises three times per week also helps to maintain strong bones.

Bone Densitometry testing is available through physician referral only, and it is advised to discuss your concerns with your family doctor as early as age 50 to determine if you are at risk or in need of early testing.

More information about bone loss and osteoporosis is available at www.osteoporosis.ca.



Debbie Howes and Debbie Tiernay are two members of the RVH Diagnostic Imaging team trained to perform bone density testing.