

## **What is Bone Densitometry?**

To detect osteoporosis accurately, doctors use an enhanced form of x-ray technology called dual x-ray absorptiometry (DXA). DXA bone densitometry is today's standard for measuring bone mineral density (BMD). DXA is a quick, painless procedure for measuring bone loss. Measurement of the lower spine and hips are most often done.

Bone densitometry is most often used to diagnose osteoporosis, a condition that often affects women after menopause but may also be found in men. Osteoporosis involves a gradual loss of calcium, causing the bones to become thinner, more fragile and more likely to break. The test can also assess your risk for developing fractures. If your bone density is found to be low, you and your physician can work together on a treatment plan to help prevent fractures before they occur. DXA is also effective in tracking the effects of treatment for osteoporosis or for other conditions that cause bone loss.

## **The Procedure**

DXA bone densitometry is a simple, non-invasive procedure. You will be asked to lie on a cushioned examination table. Once on the table you may be asked to hold an awkward position for a short time while the arm of the machine passes over your body taking measurements. The DXA machine uses a thin, invisible beam of low-dose x-rays with two distinct energy peaks. One peak is absorbed mainly by soft tissue and the other by bone. The soft tissue amount is subtracted from the total and what remains is a patient's bone mineral density. It is important that you stay as still as possible during the procedure to ensure a clear, useful image. The procedure is painless and radiation exposure is minimal.

## **Preparation**

On the day of the exam eat normally, but don't take calcium supplements for at least 24 hours beforehand. Wear loose, comfortable clothing, avoiding garments that have zippers, belts or buttons made of metal.

Inform your physician if you recently had a barium examination or have been injected with a contrast material for a computed tomography (CT) scan or radioisotope scan; you may have to wait 10 to 14 days before undergoing a DXA test.

## **After the Exam**

The results of a DXA bone density exam are interpreted by a radiologist - a physician specially trained to diagnose conditions and diseases by obtaining and interpreting medical images. The radiologist will send an interpretation of your results and a signed report to your primary care physician. Your doctor will discuss these results with you and explain what they mean in relation to your health.

Note: Women should always inform their physician or x-ray technologist if there is a possibility they are pregnant.