

Bone Density Scan (DXA)

Bone density scanning, also called dual-energy x-ray absorptiometry (DXA) or bone densitometry, is an enhanced form of x-ray technology that is used to measure bone loss. DXA is today's established standard for measuring bone mineral density (BMD).

What are common reasons for the procedure?

DXA 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, as well as structural changes, causing the bones to become thinner, more fragile and more likely to break.

The DXA test can also assess an individual's risk for developing fractures. The risk of fracture is affected by age, body weight, history of prior fracture, family history of osteoporotic fractures and life style issues such as cigarette smoking and excessive alcohol consumption. These factors are taken into consideration when deciding if a patient needs therapy.

Bone density testing is strongly recommended if you:

- Are a post-menopausal woman and not taking estrogen.
- Have a personal or maternal history of hip fracture or smoking.
- Are a post-menopausal woman who is tall (over 5 feet 7 inches) or thin (less than 125 pounds).
- Are a man with clinical conditions associated with bone loss.
- Use medications that are known to cause bone loss, including corticosteroids such as Prednisone, various anti-seizure medications such as Dilantin and certain barbiturates, or high-dose thyroid replacement drugs.
- Have type 1 (formerly called juvenile or insulin-dependent) diabetes, liver disease, kidney disease or a family history of osteoporosis.
- Have high bone turnover, which shows up in the form of excessive collagen in urine samples.
- Have experienced a fracture after only mild trauma.
- Have had x-ray evidence of vertebral fracture or other signs of osteoporosis.

Preparing for the Scan:

On the day of the exam you may eat normally. You should not take calcium supplements for at least 24 hours before your exam.

You should wear loose, comfortable clothing, avoiding garments that have zippers, belts or buttons made of metal. Objects such as keys or wallets that would be in the area being scanned should be removed.

You may be asked to remove some or all of your clothes and to wear a gown during the exam. You may also be asked to remove jewelry, dentures, eye glasses and any metal objects or clothing that might interfere with the x-ray images.

Women should always inform their physician and x-ray technologist if there is any possibility that they are pregnant.