

#### Your test results will be in the form of two scores:

**T score** - This number shows the amount of bone you have compared with a young adult of the same gender with peak bone mass. A score above -1 is considered normal. A score between -1 and -2.5 is classified as osteopenia (low bone mass). A score below -2.5 is defined as osteoporosis T score is used to estimate your risk of developing a fracture.

**Z score** - This number reflects the amount of bone you have compared with other people in your age group and of the same size and gender. If this score is unusually high or low, it may indicate a need for further medical tests.

Small changes may normally be observed between scans due to differences in positioning and usually are not significant.

### What are the benefits of DEXA?

#### **Benefits**

- DEXA bone densitometry is a simple, quick and noninvasive procedure.
- · No anesthesia is required.
- The amount of radiation used is extremely small less than one - tenth the dose of a standard chest x - ray, and less than a day's exposure to natural radiation.
- DEXA bone density testing is the most accurate method available for the diagnosis of osteoporosis and is also considered an accurate estimator of fracture risk.
- DEXA equipment is widely available making DEXA bone densitometry testing convenient for patients and physicians alike.
- No radiation remains in a patient's body after an x ray examination.



## **Facilities Offered:**

- Cath-lab
- Angiography & Angioplasty DSA
- Pace Maker
- Cardiac OT
   CABG (Bypass Surgery)
   Valve Surgery
   ASD, VSD, PDA.
- Ortho OT
- Orthopaedic Surgery
  Joint Replacement Surgery
  Arthroscopy
- Neurosurgery
- Bariatric Surgery
- Cosmetic Surgery
- Urology & Nephrology Dept.
   Urogenital Surgery
   Lithotripsy
- Dialysis
   Endoscopy
- ENT Dept.
- Dental Dept.
- Ophthalmology Dept.
- General OT
- Paediatric Dept.
- ICCU
- General Ward
- Polyclinic
- EECP (Enhanced External Counter Pulsation)

- DEXA (Bone Densitometry)
- EEG / EMG / BERA
- ECG
- 2D Echocardiography
- USG (Sonography)
- Computerised Stress Test
- Pulmonary Function Test
- Audiometry
- Digital X-ray
- Holter Monitoring
- Ambulatory BP
- Ventilators
- Computerised Pathology
- Arterial Blood Gas
- Complete Health Check-up Plan
- Physiotherapy
- Cardiac Ambulance
- 24x7 Pharmacy
- Canteen Facility



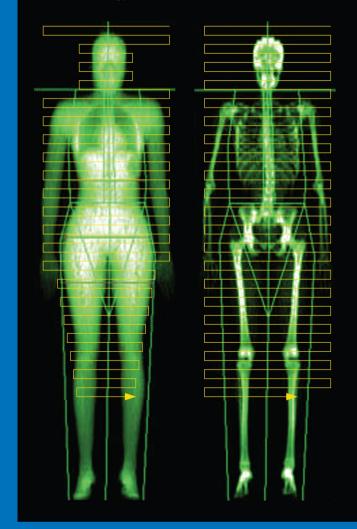
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# DEXA

The radiology information resource for patients









# What is a bone density scan (DEXA)?

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

DEXA is most often performed on the lower spine and hips. In children and some adults, the whole body is sometimes scanned. Peripheral devices that use x - ray or ultrasound are sometimes used to screen for low bone mass. In some communities, a CT scan with special software can also be used to diagnose or monitor low bone mass (QCT). This is accurate but less commonly used than DEXA scanning.

# What are some common uses of the procedure?

DEXA 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.

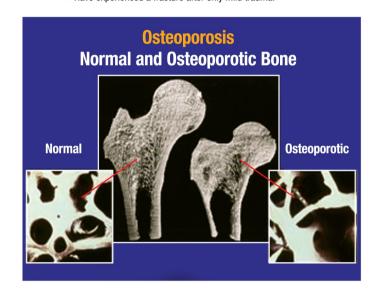
DEXA is also effective in tracking the effects of treatment for osteoporosis and other conditions that cause bone loss. The DEXA test can also assess an individual's risk for developing fractures. The risk of fracture is affected by age, body weight, history of prior fracture, family history of osteoporotic fractures and life style issues such as cigarate smoking and excessive alcohol consumption. These factors are taken into consideration when deciding the patient need therapy.

### Bone density testing is strongly recommended if you:

- Are a post menopausal women and not taking estrogen.
- Have a personal or maternal history of hip fracture or smoking.
- 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 a thyroid condition such as hyperthyroidism.
- Have a parathyroid condition, such as hyperparathyroidism.
- · Have experienced a fracture after only mild trauma.



# **How should I prepare?**

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 may be asked 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. 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, then you may have to wait 10 to 14 days before undergoing a DXA test.

Women should always inform their physician and x-ray technologist if there is any possibility that they are pregnant. Many imaging test are not performed during pregnancy so as not to

expose the fetus to radiation. If an x-ray is necessary, precautions will be taken to minimize radiation exposure to the baby.

### How does the procedure work?

The DEXA machine sends a thin, invisible beam of low - dose x - ray with two distinct energy peaks through the bones being examined. One peak is absorbed mainly by soft tissue and the other by bone. The soft tissue amount can be subtracted from the total and what remains is a patient's bone mineral density.

DEXA machines features special software that compute and display the bone density measurements on a computer monitor.

# How is the procedure performed?

This examination is usually done on an outpatient basis.

In the Central DEXA examination, which measures bone density in the hip and spine, the patient lies on a padded table. An x - ray generator is below the patient and an imaging device, or detector, is positioned above.

To assess the spine, the patient's legs are supported on a padded box to flatten the pelvis and lower (lumbar) spine. To assess the hip, the patient foot is placed in a brace that rotates the hip inward. In both cases, the detector is slowly passed over the area, generating images on a computer monitor.

The peripheral tests are simpler. The finger, hand, forearm or foot is placed in small device that obtains a bone density reading within a few minutes.

