Is the test safe?

Even though x-rays are used, the amount absorbed by the patient is only about 1/10th of that received from a chest x-ray. The x-ray dose from the bone densitometry test is comparable to the naturally occurring radiation you are exposed to in one week.*

*DPX or Prodigy series only, ref. U.S. EPA Students Radiation Protection Program, May, 2006.

Caution: Even though the x-ray dose from the bone densitometry test is very low, please inform the operator if you are pregnant or might be pregnant before your test!

Are there other tests?

Ultrasound can also be used to measure the status of the bone. Biochemical tests may be used for additional information in some cases.

Where can I get more information about bone measurements and osteoporosis?

The National Osteoporosis Foundation (NOF) is one of the leading sources of information about osteoporosis and bone measurements.

Contact the NOF:

National Osteoporosis Foundation
1150 17th St. N.W., Suite 500
Washington, D.C. 20036-4603
(202) 223-2226
website: www.nof.org

For more information, please contact:

My bone densitometry test

My bone densitometry test

Like other organs in the body, bones are constantly changing. Throughout childhood and young adulthood, bones grow in strength and in size. Around the age of 30, bones reach their peak strength and then naturally become weaker with age. Osteoporosis is a condition where bones become weak to the point of breaking. This weakening may be due to aging, or caused by other factors that combine with age. Symptoms of osteoporosis do not occur until a lot of bone strength is lost. The most visible symptoms may include loss of height, along with curvature of the upper back. Osteoporosis also can result in a crippling and painful fracture, occurring most often in the hip, back, or wrist.

Important risk factors for osteoporosis include:

- female
- caucasian
- advanced age
- a history of bone fracture
- a small thin frame
- a family history of osteoporosis
- removal of the ovaries
- early menopause
- a low calcium diet
- lack of exercise
- eating disorders
- certain medicines *(such as steroids or anticonvulsants)*
- alcohol and tobacco use

What can I expect during my bone densitometry test?

The bone densitometer is like a large examination table. It is padded and comfortable. Your name, age, height, weight and ethnicity will be entered into the computer before your test. This information is used to compare your results to a normal reference group. You will be asked to lie on your back, remaining in your normal clothing in most cases. Belt buckles, metal or thick plastic buttons and metal jewelry will need to be removed from the region being examined. The operator will position your arms and legs for the test, which is painless and typically takes 10 minutes. You just need to lie still and breathe normally.

How does the densitometer work?

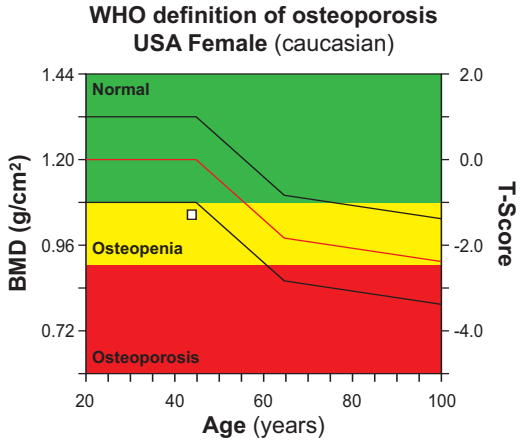
A bone densitometer measures bone mineral density (BMD). The amount of bone mineral relates directly to bone density. The bone densitometer uses small amounts of x-ray to measure BMD and to produce images of the spine, hip, or even the whole body. The technical term for the method is "dual-energy x-ray absorptiometry", or DXA. The spine and hip are measured because that is where most osteoporotic fractures occur.

What information will the test give my doctor?

A bone densitometry test is an aid to doctors in the diagnosis of osteoporosis. The test compares your bone to that of a "young adult" at peak bone strength (T-score).

The World Health Organization (WHO) has developed categories that define the amount of bone loss:

Category	T-score
Normal	above –1
Osteopenic *(low bone mass)*	–1 to –2.5
Osteoporotic	below –2.5



Your T-score combined with other risk factors, will enable your doctor to estimate what your risk of a hip fracture or other major osteoporosis-related fracture will be in the next 10 years. This information will help your doctor determine what course of action should be taken.

The bone densitometry test is also useful in following bone changes. Your doctor may suggest follow-up tests to detect change over time.