

Osteoporosis prevention and treatment

Fortunately, there are steps you can take to prevent the development of osteoporosis. Even if you already have the disease, these measures—along with therapies your doctor may prescribe—can help slow its progression.

- Make calcium-rich foods a regular part of your diet.
- If you don't eat the recommended amount of calcium, consider calcium and vitamin D supplements.
- Exercise regularly. Walking, jogging and other weight-bearing activities are especially beneficial.
- Don't smoke.
- Reduce your intake of soft drinks and coffee.
- Drink alcoholic beverages in moderation.
- If you are past menopause, talk to your doctor about hormone (estrogen) replacement therapy.

For further information about osteoporosis, treatment options and bone testing, ask your physician or contact the National Osteoporosis Foundation at (202) 223-2226.

A Patient's Guide to Bone Densitometry

A quick, convenient and painless method of assessing your risk of fracture



Osteoporosis affects millions, costs billions.

Osteoporosis—a potentially painful and crippling disease—and related bone disorders affect 27 million American women. While some bone loss can be expected as part of the normal aging process, osteoporosis is a dangerous disease. It occurs when bone loss is so severe it causes bones to become porous, brittle and likely to break. Half of all Asian and Caucasian women past menopause have or are at high risk of developing osteoporosis.

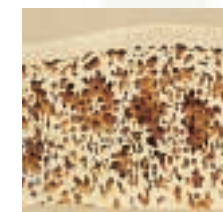
Osteoporosis is often called the “silent disease,” because it doesn't produce symptoms until a fracture occurs. The bones most likely to break are the hip, spine, and forearm. In fact, 25% of Caucasian women over 50 have at least one spinal fracture and don't know it; because spinal fractures caused by osteoporosis are most often painless. Even so, they greatly increase the risk for future fractures. A woman's risk of hip fracture alone—the most painful and debilitating of osteoporotic fractures—equals her combined risk of developing breast, uterine or ovarian cancer.

In short...the prevalence of osteoporosis has reached epidemic proportions, with related costs to our healthcare system exceeding \$14 billion annually. The personal consequences of untreated osteoporosis may be loss of independence, pain, deformity, disability...even death.

Healthy bone is dense and strong.



Osteoporotic bone is porous and more likely to break.



Am I at increased risk of having osteoporosis?

Your chances of developing osteoporosis are greater if you are female and answer “yes” to any of the following questions:

Are you...?

- Light skinned
- Thin or small framed
- Approaching or past menopause
- Milk intolerant or have a low calcium intake
- A cigarette smoker or drink alcohol in excess
- Taking thyroid medication or steroid-based drugs for asthma, arthritis or cancer

Do you have...?

- A family history of osteoporosis
- Chronic intestinal disorders
- A sedentary lifestyle



The Good News!

Osteoporosis is preventable and treatable.

Today, doctors are better able to detect and treat bone loss in its earliest stages. This can help prevent the disease or lessen its impact. Also, several drug therapies now on the market have been shown to be effective in slowing down or reversing the bone-loss process.

Just as no physician would prescribe a medication for high blood pressure without first taking the patient's blood pressure, the diagnosis and treatment of osteoporosis should begin with an objective measurement of your current bone status.

Bone densitometry

Bone densitometry, using an advanced technology called DXA (short for dual-energy x-ray absorptiometry), safely, accurately and painlessly measures bone mineral density. Bone densitometers with an additional capability called Instant Vertebral Assessment™ or IVA, also produce a x-ray of the entire spine for the assessment of vertebral (spine) fractures.

IVA is basically a rapid (10-second), low-dose x-ray scan of the spine, taken in combination with a standard bone density test. With IVA, doctors can see existing vertebral fractures, which may indicate the need for more aggressive treatment, even if bone density results are in the “normal” range.

Prior to IVA, a patient suspected of having a vertebral fracture would be referred for a conventional spine x-ray. This often required a separate office visit; exposure to higher doses of radiation; and additional time for processing and reviewing the x-ray film. With IVA, the spine scan is performed in conjunction with a bone density test, during the same appointment, at 1/100th of the radiation dose, and the results are immediately available for the doctor's review. In this way, your doctor can provide a more thorough assessment of your bone health...quickly and conveniently.

During a comprehensive examination with DXA, the patient lays comfortably still on a padded table while the DXA unit scans two or more areas, usually the fracture-prone hip and spine. Unlike typical x-ray machines, radiation exposure during bone densitometry is extremely low—less than the radiation exposure during a coast-to-coast airline flight. The entire process takes only minutes to complete, depending on the number of sites scanned. It involves no injections or invasive procedures, and patients remain fully clothed. DXA is a fast, convenient and precise way to measure bone density and uncover vertebral fractures to help determine a woman's risk of developing osteoporosis and future fractures.

Bone Densitometry Using DXA

- Simple, proven x-ray method
- Safe, low radiation
- Reveals existing vertebral fractures
- Helps determine whether you are at high, increased or low risk of fracturing a bone
- Fast and comfortable...only takes minutes
- Easy...patient remains clothed
- Painless...non-invasive, no injections

Preparing for bone densitometry scanning

- Unless instructed otherwise, eat normally on the day of the exam; but avoid taking calcium supplements for at least 24 hours prior to your appointment.
- Wear loose, comfortable clothing. Sweat suits and other casual attire without zippers, buttons, grommets or any metal are preferred.
- You should not have had a barium study, radioisotope injection, oral or intravenous contrast material from a CT scan or MRI within seven days prior to your DXA test.

How DXA bone densitometry with IVA works

1. THE EQUIPMENT

DXA is a fast, convenient and precise way to measure bone density to help determine a woman's risk of developing osteoporosis and future fractures.



2. BONE DENSITY AND IVA SCANS

Most common examination sites are fracture-prone hip and spine. Bone Mineral Density (BMD) is calculated and compared to normal BMD values, matched for age and sex. Patient is then positioned for a 10-second IVA scan of the spine.

3. THE REPORTS

The DXA system produces test results instantly. Along with information you provide about your family and medical history, lifestyle and diet, the data and image derived from the scans will be used by your physician to help determine whether you are at high, increased or low risk of fracture. Based on this information, he can decide whether you would benefit from additional therapy.

