Dear Alice,

How does a doctor take a bone density test?

Answer

Make no bones about it: The skeleton is the body's scaffolding and its density is directly related to its strength. The lower the bone density, the more vulnerable an individual is to breaks and fractures. Bone density measurements, which are used by health care professionals to evaluate an individual's risk for fracture or osteoporosis, are generally taken in one of two ways. The most accurate gauge of bone density is the DEXA (dual energy X-ray absorptiometry) scan that uses two different low-dose X-rays to determine the density of bone in the spine and the hip. The test exposes the patient to significantly less radiation than a standard X-ray and can discern as little as a 1 percent loss of bone density. A bone mineral density test is the best way to determine your bone health. The test can also identify osteoporosis and determine the risk for bone fractures.

Ultrasound is a less expensive though slightly less accurate tool to measure bone density. Sound waves are transmitted through bone (usually at the heel, shin, or knee). The time it takes the sound to pass through the bone is measured (the longer the time, the denser bone) and used to calculate overall bone density. Both tests are painless and can be done in minutes.

Many factors can predispose a person to low bone density. Women over age 65 are at the highest risk for low bone density and osteoporosis. By the way, low bone density is not the same as osteoporosis. An individual is considered to have low bone density when their bone density measures up to one standard deviation below the average for a healthy 30 year old adult. Osteoporosis is diagnosed when an individual's density is lower than one standard deviation below the average for a healthy 30 year old adult. Put simply, osteoporosis is a more severe form of low bone density. However, there are many steps one can take to prevent either condition from occurring.

- Exercise using weight-bearing activity. These are activities such as running, jogging, walking, or dancing. The pressure such activities place on bones can strengthen them over time. But proceed carefully and increase intensity gradually, so as to avoid creating a stress fracture.
• Eat calcium-rich foods, such as dairy products, kale, arugula, broccoli, oranges, soy milk, soy products, oatmeal, almonds, and some types of fish. These strengthen bones and teeth. Calcium supplements are another alternative. Shoot for consuming at least 1000 mgs of calcium per day.
• Eat foods rich in vitamin D, such as shitake or button mushrooms, vitamin D fortified milk, certain types of fish (salmon, herring, sardines, tuna), eggs, and sunshine! Vitamin D aids in calcium absorption.
• Certain medications that your health care provider can prescribe can help slow or reverse bone loss.

Check out the Related Q&As below for more resources on bone health.

Alice!
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