

Bone Density Scan Basics: Who Needs One, When To Get One, and What Can a Bone Density Scan Tell You?

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Person receiving a bone density scan

In our culture, getting old comes with plenty of myths about being “over the hill.” However, medical innovations have allowed us to live well into our 70s and 80s. To lead a healthy life as an older adult, we should be very thorough with our medical care, including screenings for the typical health conditions that occur as we age. One essential screening is a bone density scan.

Osteoporosis is a disease that occurs when your bones become less dense and break more easily. Osteoporosis means “porous bone.” Every year in the United States, osteoporosis leads to approximately 2 million fractures, including:

- 550,000 spine fractures
- 300,000 hip fractures
- 400,000 wrist fractures
- 810,000 other fractures

In people over the age of 65 or with health issues, bone fractures can lead to more serious health problems, including chronic pain, immobility, depression, disability and even death. “There are a lot of downstream impacts that are difficult when someone suffers a fracture, particularly in the hip and spine,” says DOCTOR, HOSPITAL radiologist.

About half of older adults who suffer hip fractures never completely recover their mobility. DOCTOR says, “You may not have the strength to go about your daily activities, which can cause a severe downward spiral for your overall health. It is not just a fracture. It can have a major impact.”

What can cause low bone density?

Aging is the most common reason we lose bone density, especially in women. The loss of estrogen during menopause significantly speeds up bone density reduction. Research indicates that up to 20% of bone loss happens during menopause. While older women are more prone to low bone density, it can also occur in older men.

Other causes for low bone density, include:

- Low body weight
- Poor diet
- Low physical activity
- Medications, especially steroids
- Conditions like rheumatoid arthritis, chronic kidney disease and an overactive parathyroid gland
- Smoking
- Excessive alcohol intake
- Family history of low bone density or fracture

How do you measure bone density?

Bone density is measured by a DXA scan, an easy and painless test that uses X-rays of different energies to measure the amount of mineralization in bones. The results are compared to the mineralization in young, healthy bones to determine bone density. The most commonly tested bones are in your spine, hip or forearm. The higher the mineral content, the denser your bones are and the less likely you are to experience a fracture.

Can you fix low bone density?

DOCTOR says, “Calcium and vitamin D supplements are important to take but they will mainly help maintain bone density. It is difficult to build bone back through supplements once the bone is gone.” There are medications available that help increase bone density in appropriate patients. Their effectiveness varies and they may lose potency over time.

How to avoid low bone density

“The best time to consider your bone health is in your late teens and early 20s. That is when you should build up a good reserve of mineralization in your bones by ensuring you are getting enough calcium and Vitamin D in your diet,” says DOCTOR. He says it’s difficult for most adults to get enough calcium just by eating dairy foods. He suggests taking a calcium supplement as well.

Regular exercise can help your bones stay strong as well. You should engage in aerobic activities like walking, dancing or biking and resistance exercises like weightlifting or stretching. Avoid high-impact exercises that may cause injury. You can also avoid low bone density by not smoking or drinking alcohol.

When should I get a bone density scan?

Except for broken bones, there are very few symptoms of osteoporosis or low bone density so regular bone density tests are very important for older adults. Most primary care doctors will start routine bone density scans based on the International Society for Clinical Densitometry (ISCD) recommendations, which are:

- Women aged 65 and older and men aged 70 and older
- Women during menopause or post-menopausal women younger than age 65 if they have a risk factor such as:
 - Low body weight
 - Prior fractures
 - High-risk medication use
 - Disease or condition associated with bone loss
- Men younger than 70 years of age if they have the same risk factors as above
- Adults with a fragility fracture
- Adults with a disease or condition associated with low bone density or bone loss
- Adults taking medications associated with low bone density or bone loss

DOCTOR offers this advice on bone scans, “You will receive the best results if you get your DXA performed at the same site every time. This allows more accurate comparison from study to study to determine change over time.”

Bone breaks are no fun. As we get older, fractures can be the start of more serious health issues. But there are things you can do to maintain bone health, including regular bone density scans. If you are concerned about your bones, ask your doctor for advice on getting a bone density scan.