

BONE DENSITY TESTING - DXA SCAN

DXA scans are available at Randall Imaging Center, on the first floor of our medical building, in the same suite where mammograms are performed. A separate appt. is needed for a DXA and a doctor's order is also required. Other locations can be booked if there is a long wait for a DXA appt. at Randall. If you need both a mammogram and a DEXA, see if you can book them as 2 appts. at the same visit.

Randall Breast Center, 625 S Fair Oaks Ave # 140, Pasadena, CA 91105

Tel: 626-793-6141

Or

Breastlink Women's Imaging-Pasadena

630 S. Raymond #201, Pasadena, CA 91105

Tel: 626-829-8350

Or

Marcia Ray Breastlink Women's Imaging Center, 222 W. Eulalia St., Glendale, CA 91204

Tel: 818-502-2323

This exam requires little to no special preparation. Tell your doctor and the technologist if there is a possibility you are pregnant or if you recently had a barium exam or received an injection of contrast material for a CT or radioisotope scan. Leave jewelry at home and wear loose, comfortable clothing. You may be asked to wear a gown. You should not take calcium supplements for at least 24 hours before your exam.

You Tube Video on DEXA Scan <https://www.youtube.com/watch?v=ZYdPbCgqwew>

Bone Density Testing (DXA)

Bone density testing is presently the **ONLY** method for determining if someone has osteoporosis. Joint pains are not a symptom of osteoporosis. The first symptom of osteoporosis might be a bone fracture in the lower spine (vertebral compression fracture) sometimes diagnosed by a loss of height in a woman older than 50. These can be painless fractures. Osteoporosis or Osteopenia (low bone mass) can be diagnosed before any fracture occurs.

Bone Density testing is done using an X-ray technique called DXA or DEXA (which stands for Dual-Energy X-ray Absorptiometry). There are two types of DXA bone density tests available, called central and peripheral. Central DXA is a type of X-Ray scan of the hip and the lower spine. It is usually done in a hospital or imaging center. This is what we typically order.

[Peripheral DXA scans are available. They measure the bone density of a limb, usually the forearm. They are not as accurate as a central DXA and we do not recommend them.]

Background

Osteoporosis is a disease in which bones become fragile and more likely to break. Osteoporosis is responsible for the loss of height, stooped posture (curvature of the spine) and broken hips seen in many older women. The diagnosis is often made after someone breaks a hip or develops a spinal bone fracture (called a vertebral compression fracture).

By then, the patient may have lost more than 25% of their total body bone content, a process which occurred invisibly over many years and which may have been preventable.

Statistics

About 10% of adults over age 50 have osteoporosis. There are about 1.5 million osteoporosis-related bone fractures per year. Osteoporosis can be debilitating and even deadly. Three hundred thousand women (300,000) break a hip every year. Twenty percent of these women will die within one year and 25% of the survivors will have permanent mobility issues.

DXA Results (T-Score)

There are 3 possible results from the DXA scan:

- Normal
- Osteoporosis
- in-between (called osteopenia).

The DXA result is reported as a T-score. The T-score compares the measured bone-density to that of an average individual's peak bone density (which naturally occurs about age 35). A normal result is any T-score value above a minus 1 (greater than a negative one). Osteoporosis is present when the T-score is at minus 2.5 or lower (worse). This means that the individual has already lost about 20-25% of their bone density compared to peak bone density.

Osteopenia means diminished bone density. This is a T-score between minus 1 and minus 2.5. This indicates a loss of bone from 10-25% compared to peak bone density. With osteopenia, there is increased risk for bone fractures, but there is also much hope for improvement with proper treatment.

A T-score of 0 means that your bone density is about the same as the peak bone density of a 35-year old. After menopause it is normal to have a T-score below 0. Your T-score can be lower than 0 and still be normal (a T score of minus 0.9 is normal).

OSTEOPOROSIS PREVENTION

All women over age 40 should be concerned with osteoporosis prevention. Before menopause, prevention consists of taking calcium and Vitamin-D, and weight-bearing exercise.

Vitamin D (also called D3) supplementation is typically 1,000 to 2,000 units per day of Vitamin D-3. Yes, our skin manufactures adequate amounts of Vitamin D when exposed to only 15 minutes per day of sunlight, but many people do not get this exposure. Vitamin D is also present in dairy products but at low amounts, so it is a good idea to take extra even if you drink milk (but milk is a great source of calcium). After menopause, estrogen-therapy can help prevent osteoporosis and there are other prescription medications available as well.

Calcium intake should be about 1,000 milligrams daily. This is equivalent to 3 servings daily of a dairy product such as milk, yogurt, cheese, or cottage cheese. Tofu and whole canned sardines are also rich sources of calcium, as is calcium-fortified orange juice. Most women do not get adequate calcium in their daily diet and therefore should probably take a 500-milligram calcium supplement daily to insure adequate calcium intake.

Exercise should be weight bearing, meaning that the whole body is involved. Walking, jogging, swimming, tennis, or cardio-aerobics are all excellent. Some gyms offer special bone health programs. The minimum recommendation is thirty minutes, three times per week, but more is okay too!

Other Treatments

If osteopenia or osteoporosis is diagnosed, additional measures may be necessary. Tests can be done testing for calcium absorption and excessive bone loss. Medications to help build bone are available. Modern medicine has a lot to offer women who already have osteoporosis or are heading in that direction.

<https://www.nof.org/patients/what-is-osteoporosis>

HERE ARE JUST A FEW FACTS

www.osteoporosis.foundation/patients/about-osteoporosis

- In women over 45 years of age, fractures due to osteoporosis result in more days spent in hospital than many other diseases, including diabetes, heart attack and breast cancer. –
- Up to 20-24% of patients die in the first year after a hip fracture.
- Hip fracture survivors experience loss of independence, with 40% unable to walk independently, 60% requiring assistance a year later, and 80% are restricted in other activities, such as driving and grocery shopping.
- 33% of hip fracture patients are totally dependent or in a nursing home for the year after a hip fracture.
- A hip fracture not only affects people physically but also emotionally. It reduces overall quality of life, often causing depression and isolation as people reduce social interaction or are no longer able to do the activities they used to do.
- The long-term loss of independence and mobility can put physical, emotional, and financial strain on patients themselves, as well as relatives and friends.

Compare managing high blood pressure to managing low bone density.

It is common for people aged 40 or over to be diagnosed with high blood pressure, placed on medication, and asked to make some lifestyle changes such as healthier diet, exercise, quit smoking, etc. Usually there are no symptoms with high blood pressure and a test is needed to find it. After the diagnosis is made, medication is often advised and taken. Why? Because treating high blood pressure today and continuing treatment for many years can prevent heart attacks, strokes and death that might occur many years in the future.

It is EXACTLY the same reason why decreased bone density needs to be identified when someone is younger (50+). Then medication and other treatments can be initiated to help prevent future osteoporosis, a disease that can cause death or permanent disability many years in the future.