

Bone Density Testing: When is a repeat test needed?

If you have had a bone density test and have decided to “watch and wait”, some new research may help you and your doctor decide when to have a repeat test.

What the research was about

A highly respected group of [researchers recently reported](#)¹ on nearly 5000 older women who did not take an osteoporosis drug. All these women were over age 65 and all of them had a reasonably good bone density report to start. As the years went by, the study routinely measured bone density again and again. This new report tells us that, in this age group, bone loss is really quite slow---it takes years and years for much loss to accumulate. The average older woman loses only about 5% of her bone density in 10 years.

Given the slow bone loss over time, the researchers found very few women moved from a normal bone density category to a level indicating osteoporosis. In fact, even after 15 years only 1 in 10 women had crossed this important threshold. As expected, those women whose bone density test was already borderline osteoporotic to begin with were more likely to cross over to the category of osteoporosis.

How can you use this information

If you don't already have osteoporosis and are not taking an osteoporosis drug and wondering whether to have a repeat bone density test, you can use the study's results to guide the decision to retest. You and your doctor can together decide on when to “wait” and when to “watch”. The logic behind this is relatively simple:

1. One T-score unit (e.g. -1.0) is roughly 10% of one's bone density. (For more information about T-scores and bone density changes at various times in your life, [click here](#).)
2. Once you are a few years beyond the age of menopause, assuming you are generally healthy, your expected bone loss is 0.5% per year or 5% in 10 years.
3. 5% loss is -0.5 T-score Thus, you can expect to drop one-half a T-score every 10 years.
4. Use the level of bone density (T-score) you had on your last test to determine when a repeat test would be worthwhile. You should know your T-score — certainly your doctor knows it. The table below shows the study's recommendations.

¹ Gourlay ML et al. Bone-density testing interval and transition to osteoporosis in older women. *N Engl J Med* 2012 Jan 19; 366:225.

When should you have a repeat bone density test?

What category did your last bone density test fit into?

Category of bone density test result	Your T-score	Years to your next test *
Normal (even for a young woman)	-1.0 or higher	15 years
Mildly low	Between -1.0 and -1.5	15 years
Moderately low	Between -1.5 and -2.0	5 years
Borderline osteoporosis	Between -2.0 and -2.5	1 year

* based on a 10% chance of your next test showing osteoporosis

This table doesn't apply to you if:

- Your T-score was -2.5 or lower, (you already could be diagnosed as having osteoporosis).
- If you are taking an osteoporotic drug.
- If your risk factors for fracture change (see below).

Your bone density score is not the whole story

The diagnosis of osteoporosis as measured by a T-score of -2.5 or lower is important, but it is not the whole story. Bone density is only one of several important risk factors that together determine your fracture risk in the future. Age is probably the most important risk factor for fracture. We know that every 7-8 years, your risk of having a fracture doubles¹. American Bone Health can help you calculate your fracture risk at www.americanbonehealth.org.

What if you have never had a bone density test?

The US Preventive Services Task Force recommends that all women over age 65 years and all men over age 70 years should have HAD a bone density test. In addition, if you are under age 65, but have risk factors that put you at 9.3% or higher 10-year risk of having a major osteoporotic fracture it would be a good idea for you to have your first bone density test — if lower, you can safely wait a few years. To find your fracture risk, go to www.americanbonehealth.org.

Always remember, there are other important [prevention strategies](#) to keep your bones strong.

¹ Ettinger et al. Osteoporosis International 2010; 21:25-33