



OPTIONS CENTER HEALTH TOPIC



What is bone aging?

Bone turnover is a process that continues to take place throughout our lifetime. It is a delicate balance between bone formation and breakdown. In childhood and early adulthood, the process is strongly in favor of bone formation and this continues up to the age of 30-40 years; after which the balance starts to tilt to bone breakdown. This results in the gradual thinning of bone with age, or osteoporosis. Around the onset of menopause, bone turnover tilts in favor of bone breakdown. This is due to the persistent imbalance or decline in estrogen, progesterone, and other hormone levels.

How is it related to Menopause?

During cycling years most women have enough ovarian output of progesterone and estrogen. These two hormones promote bone growth. Around the mid-forties (usually 3-4 years before the cessation of menstruation) the levels of estrogen and progesterone start to gradually drop off, thus accelerating bone dissolution. In men, the drop of testosterone can lead to a similar picture. Men convert testosterone into estrogen, therefore a decrease in testosterone can reduce estrogen levels.

Does it affect my health?

Yes, it does. Bone aging leads to a disease called osteoporosis that results in bone thinning and, more importantly, bone fragility. Osteoporosis can affect you and your loved ones in several ways:

1. Middle-aged and elderly people lose a few inches of their height due to osteoporosis.
2. Many seniors are prone to hip fractures secondary to osteoporosis.
3. 1.5 million bony fractures – at various body sites occur annually secondary to osteoporosis.

Am I at risk for Osteoporosis?

Your risk for osteoporosis increases with:

- ◆ Age
- ◆ Sedentary life style
- ◆ Non-black skin color
- ◆ Smoking
- ◆ Alcohol consumption
- ◆ Family history of osteoporosis
- ◆ Around the time of menopause... and if you have:
 - ◆ Thyroid disease
 - ◆ Diabetes
 - ◆ Adrenal impairment
 - ◆ Kidney disease
 - ◆ Rheumatoid arthritis

If you are at a high risk for developing osteoporosis, there are different measures and options to objectively assess your risks, and these include:

- ◆ **Bone density measurement:** employs radioactive or x-ray sources to measure your bone strength and mineral content.
- ◆ **Urine testing:** employs one random urinary specimen to assess the rate of bone breakdown in your body.

What does Options Center have to offer me?

We are offering you a urine test to assess for bone breakdown. The test is called Pylilinks-D (Dpd). We can also measure your estrogen, progesterone, and four other hormone levels from a saliva specimen.

How to use this test:

At Options we can use the Pylilinks-D urine test to:

- ◆ Screen for osteoporosis in conjunction with bone densitometry
- ◆ As a follow-up test to monitor the bone response in
 - Hormone Replacement Therapy
 - And/or osteoporosis treatment protocols

During their lifetime . . .

1 in **3** women
**Will break their
hip bones.**

This is preventable.

The health of your bones can be evaluated with a urine test. Empower yourself with information about your bones that will make a difference with intelligent choices.

A case in point:

A woman in her fifties showed significant bone loss on both an x-ray and the urine test. A post menopausal salivary hormone test was given to her, she was found deficient in 3 hormones. She took a balanced hormone treatment and nine months later her bone urine test became normal.

Some information from Diagnos-Techs, Inc., Standard Process and Medline Plus Medical Encyclopedia.