



Osteoporosis – dangerous, preventable, treatable

We all have seen the visible effects of severe osteoporosis. The picture is of an elderly woman (or less commonly a man), extremely hunched over, with a back twisted like a pretzel. Be aware, however, that most of the harm caused by osteoporosis is not visible.

Osteoporosis is a weakening of the bones, caused by a gradual loss of calcium. This weakening of the bones leads to an increased risk of fractures of all bones, but especially the hip bones, the individual vertebrae of the spinal column, and the wrists. Each year in the US, osteoporosis results in 300,000 hip and wrist fractures and 800,000 vertebral fractures. In one year, that is more than the total number of heart attacks, strokes, breast, uterine, and ovarian cancers combined! The average woman has greater than a 40% lifetime risk of suffering an osteoporotic fracture.

Today, osteoporosis is detectable, preventable and treatable. Every woman can take actions to help prevent the devastating visible and invisible effects of osteoporosis.

We all reach our peak bone density at about age 25. Those who are physically active and regularly consume calcium containing foods such as dairy products tend to have stronger, denser bones at this peak. After age 25, we lose bone density at a rate of 1-2% per year. After menopause, women begin losing bone density at a rate of 2-4% per year, especially in the hip bones and vertebrae. This rapid loss continues for 10 to 15 years, with a possible loss of as much as 40%. Women who are petite and Caucasian are at increased risk for developing osteoporosis.

Prevention – Part of one's risk of developing osteoporosis is genetic. If your mother has it, there is a high risk that you will get it too. However, there are also many other factors which contribute to osteoporosis: Lifestyle issues: sedentary lifestyle, smoking, excess alcohol, excess caffeine.

Diet: Low calcium intake – the major sources of calcium are milk and milk products. Small amounts are found in eggs, dark green leafy vegetables, nuts,

whole grains and legumes. *Low vitamin D intake* – vitamin D is essential for the body to absorb and use calcium. There are few natural dietary sources. That is why vitamin D is added to milk. Women who consume little dairy, and anyone with reduced bone density should supplement their diet with 1,200 to 1,500 mg of elemental calcium and 400-600 IU of vitamin D daily.

Drugs: Heparin, Anticoagulants, Thyroxine, Corticosteroids.

Detection – The test for osteoporosis is Bone Densitometry, and the best is the DEXA scan. Women who have several of the above risk factors should consider having a scan in their mid to late 40's. Most women should consider having a baseline scan done at the time of menopause. Frequency of scans after that depend upon the results of that baseline scan. The primary result of the test is the "**T-score**". This number, measured at the hip bones and vertebrae, compares your bone density with average peak bone density of a young adult. 0 to -1 is normal. -1 to -2.5 is considered 'osteopenia'. Less than -2.5 is osteoporosis. Both osteopenia and osteoporosis should be treated.

Treatment – There are a variety of medicines available to treat osteoporosis. All increase bone density. The choice of one of these medications over another also depends upon tolerability and side effects of each for you as an individual. Your doctor can help you make these choices.