



## OSTEOPOROSIS

### Definition

Osteoporosis is a disease that most often affects postmenopausal women and people 65 years and older.<sup>1</sup> It causes bones to become thinner and more porous, thus reducing bone strength.<sup>2</sup> Osteoporosis is often referred to as a “silent disease” because in most cases it is not diagnosed until after a fall or a fracture.<sup>2</sup>

### Prevalence

Osteoporosis is extremely common within the United States. It is estimated that by 2012, approximately 12 million Americans over the age of 50 will have osteoporosis.<sup>3</sup> Postmenopausal women are most at risk and it is estimated that one-half of these women will experience an osteoporosis-related fracture during their life.<sup>3</sup>

Hip fractures can be especially debilitating, with one in five women who were ambulatory before their hip fracture requiring long term-care afterwards.<sup>4</sup> Additionally, an average of 24 percent of hip fracture patients ages 50 and older die in the year after their fracture.<sup>4</sup>

### Risk Factors

*Non-modifiable risk factors for osteoporosis include:*

- Gender - women naturally have a lower peak bone mass than men, thus making their bone mass loss more significant<sup>5</sup>
- Estrogen - decreasing estrogen levels in women can lead to bone mass loss
- Age - the older you are the greater your bone mass loss
- Body size - small thin women are at greater risk
- Ethnicity - particularly Asian and Caucasian women are at higher risk
- Family history – a parent with a history of a hip fracture increases your risk<sup>6</sup>

*Risk factors that can be changed:*

- Poor eating habits and eating disorders
- Low calcium and vitamin D intake
- Long term use of certain medications such as corticosteroids
- Lack of physical activity, especially weight-bearing exercise
- Smoking
- Daily alcohol intake<sup>6</sup>

### Screening Methods and Guidelines

The most common screening method for osteoporosis is the DXA (Dual-Energy X-ray Absorptiometry) Scan. This test measures the bone density of the spine or the hip and is currently the most accurate and most widely used test.<sup>7</sup> Based on the test results, you are given a T-score that is calculated by comparing your bone density with the average bone density of a healthy 30-year-old.<sup>7</sup>

U.S. Preventive Services Task Force recommends that all women 65 years and older be screened regularly for bone loss and osteoporosis. They also recommend that women under the age of 65 who are at increased risk as determined by the healthcare provider be screened regularly.<sup>3</sup>

## Prevention

While diagnosed later in life, *osteoporosis is preventable starting as early as childhood.*

Healthy lifestyle practices can increase bone growth and maximize peak bone mass, which is reached around age 30,<sup>5</sup> and can help slow the loss of bone density as people age. These practices include:

- A diet rich in calcium and vitamin D;
- Consistent exercise. You do not have to run a marathon, you just need regular weight-bearing exercise (i.e. walking, jogging, dancing, hiking);<sup>8</sup>
- Not smoking and limiting alcohol intake.<sup>6</sup>

With simple changes to diet, exercise routine, and lifestyle habits, women can decrease their chances of having osteoporosis later in life while increasing overall bone health.

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<sup>1</sup> Osteoporosis Handout on Health, NIH Osteoporosis and Related Bone Diseases National Resource Center. Retrieved from [http://www.niams.nih.gov/Health\\_Info/Bone/Osteoporosis/osteoporosis\\_hoh.asp](http://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/osteoporosis_hoh.asp)

<sup>2</sup> Osteoporosis, American College of Physicians. Retrieved from [http://www.acponline.org/patients\\_families/womens\\_issues/osteoporosis/](http://www.acponline.org/patients_families/womens_issues/osteoporosis/)

<sup>3</sup> Screening for Osteoporosis: Recommendation Statement, U.S. Preventative Services Task Force. Retrieved from <http://www.uspreventiveservicestaskforce.org/uspstf10/osteoporosis/osteors.htm>

<sup>4</sup> Fast Facts, National Osteoporosis Foundation. Retrieved from <http://www.nof.org/node/40>

<sup>5</sup> Osteoporosis: Peak Bone Mass in Women, NIH Osteoporosis and Related Bone Diseases National Resource Center. Retrieved from [http://www.niams.nih.gov/Health\\_Info/Bone/Osteoporosis/bone\\_mass.asp](http://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/bone_mass.asp)

<sup>6</sup> What Is Osteoporosis? Fast Facts: An Easy-to-Read Series of Publications for the Public, NIH Osteoporosis and Related Bone Diseases National Resource Center. Retrieved from [http://www.niams.nih.gov/Health\\_Info/Bone/Osteoporosis/osteoporosis\\_ff.asp](http://www.niams.nih.gov/Health_Info/Bone/Osteoporosis/osteoporosis_ff.asp)

<sup>7</sup> Women's Health: Osteoporosis. ACOG Patient Education. Retrieved from [http://www.acog.org/publications/patient\\_education/bp048.cfm](http://www.acog.org/publications/patient_education/bp048.cfm)

<sup>8</sup> Exercise for Your Bone Health, NIH Osteoporosis and Related Bone Diseases National Resource Center. Retrieved from [http://www.niams.nih.gov/Health\\_Info/Bone/Bone\\_Health/Exercise/default.asp](http://www.niams.nih.gov/Health_Info/Bone/Bone_Health/Exercise/default.asp)