

Osteoporosis a Health Concern for Women

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Osteoporosis is a major health concern affecting one in three women worldwide. An estimated 44 million Americans, 50 years of age and older, have either osteopenia (low bone density) or osteoporosis. Eight million American women have osteoporosis and 22 million have osteopenia. By the year 2010 these numbers are expected to rise to 9 million and 26 million, respectively. Each year thousands of Americans, primarily postmenopausal women over 50, experience sudden bone fractures while performing everyday activities.

Annually, 1.5 million fractures are attributed to osteoporosis in the United States. The most common fracture sites are the wrist, hip, and spine, and may be damaging to one's health. After the age of 50, the fracture risk at one of these sites is 50% for women and 13% for men. Vertebral fractures, the most common fractures, may cause severe, disabling pain, spinal deformity, and thoracic kyphosis. Hip fractures are associated with high mortality and loss of independence, with one in five women dying within the first year post-fracture.

Osteoporosis is a widespread health problem, in part because it is a silent disease. Osteoporosis has no early symptoms; therefore, the diagnosis may occur after a fracture or visible changes are evident. Recent advances in medicine allow doctors to assess the patient's risk for developing osteoporosis by measuring bone mineral density (BMD).

BMD is used as an indicator of bone integrity and measured with different methods. The gold standard, is dual-energy x-ray absorptiometry (DEXA). It uses an X-ray source to scan BMD. The DEXA scan is far superior to other methods because it lacks a radiation source, is more accurate and precise, and takes less time to complete. It gives a BMD results that are compared to expected values for the patient age. One standard deviation below the average is designated osteopenia; two standard deviations below average is designated osteoporosis.

Though diagnosing osteoporosis has become easier for clinicians, optimal treatment is still unclear. A variety of medications approved by the Food and Drug Administration are available for the treatment and prevention of osteoporosis. All have been shown to prevent or decrease post-menopausal bone loss. Understanding bone development and exercise effects on bone will optimize prevention and treatment. Exercise is not always prescribed to women with previous osteoporotic fractures for fear of additional fractures or injuries. However, avoiding physical activity may be of greater detriment. Inactivity accelerates functional decline and increases risk of additional fractures. Also, exercise may improve strength, flexibility, posture, and balance, therefore reducing risk of fractures due to falls.