



Preface
Osteoporosis



Ethel S. Siris, MD
Guest Editor

Osteoporosis is a common problem in the elderly. In women, significant bone loss begins at menopause; in both women and men, age-related bone loss is a continual process during the latter decades of life. Bone loss, which is due to an imbalance between rates of bone resorption and bone formation, leads not only to diminished bone quantity but also to a loss of bone strength because of the microarchitectural changes in bone that accompany its loss. As a result of these changes in both quality and quantity, bone becomes susceptible to fracture after minor trauma. Many osteoporotic fractures are the result of a fall from standing height onto fragile bone. Elderly persons often have fragile bone and are prone to falls because of other changes related to the aging process.

The consequence of osteoporosis, namely the fragility fracture, is the source of tremendous morbidity that impacts greatly on quality of life. Common fractures attributed to osteoporosis include fractures of the distal radius, vertebrae, and hip, but virtually any low trauma fracture of bone in an older individual (except for fractures of the skull, fingers, or toes) is likely to be associated with low bone mass. Those who fracture virtually any skeletal site are at increased risk for additional fractures. Osteoporotic fractures can cause pain and disability, and both vertebral and hip fractures are associated with increased mortality. The cost of caring for patients with osteoporotic fractures currently exceeds \$14 billion in the United States each year. This will only increase as more individuals reach the age of risk.

Over the past few years, remarkable advances have been made in the prevention, diagnosis, and treatment of osteoporosis. The biology of bone and the pathophysiology of osteoporosis are far better understood than they were only

15 or 20 years ago. Bone density testing is now widely available; this technique provides a useful tool for diagnosis before a fracture occurs, or, in the older patient with a fracture, to determine the presence or extent of osteoporosis. Recently, the US Preventive Services Task Force recommended that all women over age 65 have a bone density test, and that all women 60–64 with risk factors for fracture be tested. In all cases testing can aid in decisions regarding treatment.

The value of calcium and vitamin D repletion in all older persons has been clearly established. In addition, a range of safe and effective medications now exists to assist in the prevention of bone loss and in the reduction of future fracture risk in individuals with low bone mass. Orthopedic and rehabilitation medicine advances have enhanced the procedures for fixing fractures, relieving pain, and restoring function in patients who have experienced fractures. The problem of osteoporosis has not been solved as yet, but patients can now be offered more help than ever before.

It has often been said that the best approach to the management of a problem is useless if the problem itself is not recognized as being present. This issue of the *Clinics in Geriatric Medicine* is a joint effort by a group of experts in the field to bring this problem clearly to attention, describe its causes and clinical consequences, and review the appropriate diagnostic tools and treatment modalities. Geriatric physicians provide medical care to those individuals most vulnerable to osteoporosis and fractures; it is our hope that the information contained in this issue will assist geriatric physicians in helping these individuals lead better lives as they grow older.

Ethel S. Siris, MD
Toni Stabile Osteoporosis Center
Harkness Pavilion 9-964
180 Fort Washington Avenue
New York, NY 10032, USA
E-mail address: es27@columbia.edu