

## ***Position Statement***

# **Prevention of Hip Fractures Due to Osteoporosis**

*This Position Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.*

Hip fractures—a break in the upper quarter of the femur (thigh) bone, typically caused by a trauma or fall directly to the side of the hip—are occurring at an epidemic rate in the United States and throughout the world. At least 258,000 Americans age 65 and older are hospitalized for hip fractures each year; more than 95 percent of these injuries are caused by falls. By 2030, the number of hip fractures is expected to jump 12 percent, to 289,000 per year.<sup>1</sup>

For most patients and their families, a hip fracture is a life-altering event, resulting in a cascade of potentially significant changes, such as reduced mobility, the inability to live independently, and even increased mortality. Only about one in four hip fracture patients will make a full recovery; 40 percent will require nursing home admission; 50 percent will be dependent upon a cane or a walker; and 20 percent will die within one year of the fall.<sup>2</sup>

Often, hip fractures are among the most serious consequence of osteoporosis, a disease of progressive bone loss that affects more than 54 million Americans, according to the National Osteoporosis Foundation.<sup>3</sup> A fracture sustained during a fall is often the first sign of advanced osteoporosis. Women are especially at risk, sustaining approximately three-fourths of all hip fractures. Both men and women are at increased risk of fractures as they age, with people age 85 and older 10 to 15 times more likely to sustain hip fractures than people between the ages of 60 and 65.<sup>1</sup>

***The American Academy of Orthopaedic Surgeons (AAOS) believes that the growing epidemic of hip fractures requires a comprehensive national response, stressing education, prevention, and research.***

Public education programs must raise the level of awareness of this serious public health issue, focus on currently available techniques for preventing hip fractures, and involve both health care providers and the public. Emphasis should be directed toward reducing the frequency and consequences of falls among the elderly, as well as reducing the incidence and severity of osteoporosis.

Most hip fractures are the result of falls, and most falls occur in the home.<sup>4</sup> The AAOS and the Orthopaedic Trauma Association offer a [Falls Prevention Guide](#)<sup>5</sup> to help patients and caregivers reduce the risk of falls in the home by:

- Recognizing the medical, personal, and environmental factors that increase the risk of a fall.
- Making modifications to the bathroom, stairways, kitchen, bedroom, and living areas. Establishing a support network, and in the event of a fall, knowing what to do and who to contact.

Orthopaedic surgeons recognize that efforts to reduce the number of hip fractures in America will be successful only with the collaboration and cooperation of other allied medical specialties, especially primary health care providers. The AAOS has joined with other groups, including the National Osteoporosis Foundation, to create a Position Statement on Osteoporosis, as well as to provide educational materials and support of programs to reduce the frequency of hip and other fractures.

Although osteoporosis will occur in everyone as they age, the rate of progression can be altered through diet, exercise, and lifestyle modifications, as well as through early diagnosis and treatment. Preventive education, during childhood and through all stages of adulthood, should address the following issues:

- The appropriate amount of calcium and vitamin D in the daily diet, and the need for supplements when necessary, as recommended by a doctor. Visit [OrthoInfo.org](#) for information on the recommended daily allowances and dietary sources for calcium and vitamin D.
- The importance of regular weight-bearing and other exercises—such as walking, jogging, and dancing—to build and maintain strong bones, preserve balance, and prevent bone deterioration.
- The importance of not smoking and not drinking excessive amounts of alcohol, which both contribute to bone density loss.

Patients with a history of osteoporosis, and at least one visit to the hospital emergency department following a fall, should be assessed for fall risk. In addition, patients at risk for osteoporosis, including the elderly, should be screened, and if necessary, proactively treated for osteoporosis.

In addition, focused research is required to determine the most effective ways of preventing osteoporosis and fracture-causing falls. In 2014, AAOS released the new clinical practice guideline (CPG), “The Management of Hip Fractures in the Elderly,” that outlines protocols on optimal and timely treatment; avoiding post-surgical delirium, also known as acute confusion, which is common among hip fracture patients; and developing systems and protocols for effective rehabilitation. The Academy’s CPG, which has been endorsed by a number of organizations, also recommends an osteoporosis evaluation, as well as Vitamin D and calcium supplements, for patients following a hip fracture.<sup>6</sup>

***The AAOS supports the efforts of the National Bone Health Alliance ([nbha.org](#)), of which the Academy is a member; the American Orthopaedic Association’s (AOA) “Own the Bone” program ([ownthebone.org](#)); and, the U.S. Centers for Disease Control and Prevention efforts to stimulate a greater understanding of hip fractures. In addition, AAOS urges further governmental and private support for research and education targeted at reducing the burden posed by hip fractures, the costliest of all musculoskeletal injuries. This investment will help reduce the significant financial burden of health care for all Americans.***

## References:

1. Hip Fractures Among Older Adults. U.S. Centers for Disease Control (CDC) website: <http://www.cdc.gov/HomeandRecreationalSafety/Falls/adulthipfx.html>. Accessed June 3, 2015.
2. Guidelines for Preventing Falls. American Academy of Orthopaedic Surgeons OrthoInfo website: <http://orthoinfo.aaos.org/topic.cfm?topic=A00135>. Accessed June 4, 2015.
3. Debunking the Myths. National Osteoporosis Foundation website: <http://nof.org/OPmyths>. Accessed June 4, 2015.
4. Hip Fracture Prevention. American Academy of Orthopaedic Surgeons OrthoInfo website: <http://orthoinfo.aaos.org/topic.cfm?topic=A00309>. Accessed June 4, 2015.
5. Falls Prevention Guide. American Academy of Orthopaedic Surgeons OrthoInfo website: <http://www.orthoinfo.org/falls/media/AAOSFallPrevention.pdf>. Accessed June 4, 2015.
6. AAOS Clinical Practice Guideline: The Management of Hip Fractures in the Elderly. <http://www.orthoguidelines.org/topic?id=1017> Accessed June 11, 2015.

©July 1993 American Academy of Orthopaedic Surgeons. Revised June 2005, September 2010, and December 2015.

This material may not be modified without the express written permission of the American Academy of Orthopaedic Surgeons.

Position Statement 1116

For additional information, contact the Public Relations Department at 847-384-4036.