

# Seniors & Falls

Falling is the leading cause of unintentional injury at home among Americans 65 and older.

John Robertson - May 2007

A report issued by the National Safety Council and the U.S. Consumer Product Safety Commission in 2005 found that, although senior citizens in America are living longer and are more active than previous generations, they are also reporting to emergency rooms in greater numbers for fall-related injuries<sup>3</sup>.

Falling is the leading cause of injury death for Americans age 65 and older. In 2003 13,700 people over the age of 65 died in America as a result of a fall. Another 1.8 million were treated in emergency departments for nonfatal injuries related to falls. The total direct cost for falls among older adults in 2000 was about \$19 billion. Given the growing population of this age group, this cost is expected to reach \$43.8 billion by 2020<sup>2</sup>. More than one third of adults age 65 and older fall each year in the United States<sup>1</sup>.

National Safety Council president Alan McMillan says his group and others are finding almost all accidental injuries and fatalities are going down, with the exception of accidents in the home and community that are mostly driven by falls as Americans age<sup>3</sup>.

"In part, it's a good news-bad news situation," McMillan says. "We're living longer, and we're more independent and more mobile. Medical advances are helping us live longer. But, with that, there's been a steady rise in the accidental death rate caused by falls."<sup>3</sup>

He's also concerned that those numbers are going to increase as baby boomers age<sup>3</sup>.

"The real issue," McMillan stresses, "is that about 13,000 people over 65 will die in America of a fall every year. And 10,000 of them are dying in their homes or residential facilities they live in. And falls don't discriminate. They affect you whether you're wealthy, poor, male or female. They cut across all socio-economic lines."<sup>3</sup>

McMillan suggests part of the problem is complacency. We've just come to expect that the seniors in our lives will eventually fall and break a hip. He says, "Most of us accept falling as a by-product of aging. It is not. Almost without exception, these falls are preventable."<sup>3</sup>

And have serious consequences if they result in broken hips. "The outcome for a person 65 or older with a serious fall who's broken a hip not good," McMillan laments. "Twenty-five percent of those people will die within six months. Another 25 percent

will never return to full, normal functioning. And another 35% will live a substantially disabled way of life."<sup>3</sup>

But, McMillan stresses, "If there's anything encouraging about this problem, it's that there are common sense and cost-effective solutions to help prevent falls. When you look at what people need to do, it's not difficult."<sup>3</sup>

He adds that the responsibility for prevention really falls to boomers, who need to think of ways to help their aging parents. It includes helping with prevention at home and in nursing homes, hospitals or other care facilities. Falls happen everywhere.<sup>3</sup>

He calls boomers "the prime audience." Adult children need to step up to help their aging parents. Do an audit of their home for safety, and do an audit of the medications they're taking."<sup>3</sup>

## What outcomes are linked to falls?<sup>2</sup>

- 20 to 30% of people who fall suffer moderate to severe injuries such as bruises, hip fractures, or head traumas. These injuries can make it hard to get around and limit independent living. They also can increase the risk of early death (Alexander et al. 1992; Sterling et al. 2001).
- Falls are the most common cause of traumatic brain injuries, or TBI (Jager et al. 2000). In 2000, TBI accounted for 46% of fatal falls among older adults (Stevens et al. 2006).
- Most fractures among older adults are caused by falls (Bell et al. 2000).
- The most common fractures are of the spine, hip, forearm, leg, ankle, pelvis, upper arm, and hand (Scott 1990).
- Many people who fall, even those who are not injured, develop a fear of falling. This fear may cause them to limit their activities, leading to reduced mobility and physical fitness, increasing their actual risk of falling (Vellas et al. 1997).
- In 2000, direct medical costs totaled \$0.2 billion (\$179 million) for fatal falls and \$19 billion for nonfatal fall injuries (Stevens et al. 2006).

## Who is at risk?<sup>2</sup>

- Men are more likely to die from a fall. After adjusting for age, the fatality rate in 2003 was 49% higher for men than for women (CDC 2005).
- Women are much more likely than men to have nonfatal fall injuries (CDC 2005).
- Rates of fall-related fractures among older

- adults are more than twice as high for women as for men (Stevens et al. 2005).
- In 2003, about 72% of older adults admitted to the hospital for hip fractures were women (CDC 2005).
- The risk of being seriously injured in a fall increases with age. In 2001, the rates of fall injuries for adults 85 and older were four to five times that of adults 65 to 74 (Stevens et al. 2005)
- Nearly 85% of deaths from falls in 2003 were among people 75 and older (CDC 2005).
- People 75 and older who fall are 4 to 5 times more likely to be admitted to a long-term care facility for a year or longer (Donald et al. 1999).
- There is little difference in fatal fall rates between whites and blacks from ages 65 to 74. After age 75, white men have the highest rates, followed by white women, black men, and black women (CDC 2006).
- White women have significantly higher rates of fall-related hip fractures than black women (Stevens 2005).
- Among older adults, non-Hispanics have higher fatal fall rates than Hispanics (Stevens et al. 2002).

More than 95% of hip fractures among adults ages 65 and older are caused by falls (Grisso et al. 1991). These injuries can cause severe health problems and lead to reduced quality of life and premature death (Wolinsky et al. 1997; Hall et al. 2000).

#### **How big is the problem?**<sup>2</sup>

- In 2003, there were more than 309,500 hospital admissions for hip fractures (NCHS 2006).
- From 1993 to 2003, the number of hip fracture hospitalizations increased 19%, from 261,000 to 309,500 (NCHS 2006).
- However, after adjusting for the increasing age of the U.S. population (U.S. Census Bureau 2006), the hip fracture rate decreased 14%, from 901 per 100,000 population in 1993 to 776 per 100,000 population in 2003 (NCHS 2006).
- In 1990, researchers estimated that the number of hip fractures would exceed 500,000 by the year 2040 (Cummings et al. 1990).

#### **What outcomes are linked to hip fractures?**<sup>2</sup>

- As many as 20% of hip fracture patients die within a year of their injury (Leibson et al. 2002).
- Most patients with hip fractures are hospitalized for about one week (Popovic 2001).
- Up to 25% of adults who lived independently before their hip fracture have to stay in a nursing home for at least a year after their injury (Magaziner et al. 2000).
- In 1991, Medicare costs for hip fractures were estimated to be \$2.9 billion (CDC 1996).

#### **Who is at risk?**<sup>2</sup>

- Women sustain about 80% of all hip fractures (Stevens et al. 2000).
- In 2003, 72% of hip fracture hospitalizations were among women (NCHS 2006).
- Among both sexes, hip fracture rates increase exponentially with age (Samelson et al. 2002). People 85 and older are 10 to 15 times more likely to sustain hip fractures than are people ages 60 to 65 (Scott et al. 1990).
- People with osteoporosis are more likely to sustain a hip fracture than those without this condition (Greenspan et al. 1994).

#### **The major causes of falls**

- Poor eyesight or hearing caused by normal aging.
- Illness and physical conditions that affect balance and strength.
- Side effects of medication that may make you dizzy.
- Loss of strength, flexibility and balance caused by normal aging.

#### **Traumatic consequences of falling**<sup>4</sup>

- fracture
- exacerbation of arthritis
- hematoma
- bruising
- laceration

#### **Psychological consequences of falling**<sup>4</sup>

- loss of confidence
- social isolation
- depression
- dependency
- confusion
- institutionalization

#### **After falling immobilization and its consequences**<sup>4</sup>

- hypothermia
- chest infection
- thrombosis
- dehydration
- osteoporosis
- contractures
- pressure sores
- constipation/impaction
- urinary retention/incontinence
- institutionalization

#### **Sources**

1. Hornbrook et al. 1994; Hausdorff et al. 2001
2. Centers For Disease Control And Prevention
3. National Safety Council and the U.S. Consumer Product Safety Commission
4. New York Medical College