

## **Arthritis and Injury**

Falls and fall-related injuries are among the most serious and most common medical problems experienced by the elderly, including those with arthritis. Hip fractures can threaten the independence and survival of persons with arthritis and the elderly.

### **How big is the problem?**

In Illinois in 2003, more than 2.2 million adults had doctor-diagnosed arthritis (23.9 percent). An additional 1.4 million (15.2 percent) reported having possible arthritis (Illinois Behavioral Risk Factor Surveillance System, 2003).

In terms of economic costs, according to Medical Expenditure Panel Survey, Behavioral Risk Factor Surveillance System (BRFSS), United States, 2003, and U.S. Centers for Disease Control and Prevention (CDC), the total cost of arthritis and other rheumatic conditions (AORC) in Illinois was \$2.7 billion in 2003 (approximately \$1.6 billion direct costs). Illinois ranks 17th in the nation.

Falls are the third leading cause of unintentional deaths in the United States. Seventy-five percent of these falls occur in the older adult population.

Falls account for more than 2 million injuries, nearly 400,000 hospital admissions and 9,000 deaths. Health care costs for falls and rehabilitation now average \$70 billion dollars a year.

### **Who is at risk?**

Arthritis and injuries are closely interrelated with arthritis being a risk factor for fall-related injuries in the elderly. Conversely, injury to the knee or hip joint or repeated overuse of joints can put a person at increased risk for osteoarthritis, the most common type of arthritis. According to one study, a single knee injury early in life can put a person at five times the risk for osteoarthritis in adulthood; likewise a hip injury could more than triple the risk (Arthritis Foundation). Side effects of prescribed medications and improper use of canes and walkers may further increase the risk of falling.

**Non-modifiable risk factors** for fall related injuries include:

- Previous fall – increases chance for subsequent falls
- Reduced vision
- Unsteady gait
- Musculoskeletal system – muscle atrophy, calcification of tendons and ligaments, and increased curvature of the spine

- Mental status – confusion, disorientation, inability to understand and impaired memory
- Acute illness – seizures, orthostatic hypotension
- Chronic illnesses – conditions such as arthritis, cataracts, glaucoma, dementia, diabetes and Parkinsonism
- Age
- Female gender
- Cardiovascular disease

**Modifiable risk factors** for fall-related injuries include:

- Poor lighting
- Unsafe stairways
- Missing handrails
- Improperly labeled medicines
- Clutter
- Poorly designed furniture, including unstable or low back chairs
- Unsteady tables
- Cold temperatures
- Wet, waxed or irregular floors
- Torn or slippery carpets
- Unstable towel racks or sink tops
- Difficult to reach cabinets or wall phones
- Low toilet seats

**How can it be prevented?**

Improving arthritis related pain, swelling, stiffness and joint mobility will decrease the chances of fall-related injuries. Modifiable factors responsible for fall-related injuries should be addressed.

Support groups and arthritis education can help people learn about the disease and how to cope with it. Participants learn practical tips, such as how to:

- Get up off the floor after a fall
- Protect joints with careful use and assistive devices
- Drive a car safely
- Get comfortable sleep
- Use heat and cold treatments
- Talk with their doctors
- Cope with emotional aspects of pain and disability. They also may learn to acquire and maintain a positive attitude

Preventive measures to avoid external factors related to falls:

- Do not walk and talk at the same time
- Wear appropriate footwear
- Arrange furniture so that it creates plenty of room to walk freely
- Install railings in hallways and grab bars in bathroom
- Install adequate lighting
- Install non-slip strips or a rubber mat on the floor of the tub or shower
- Use caution when carrying items while walking
- Use a nightlight when getting out of bed at night

Appropriate arthritis management can help people with arthritis live healthy and independent lives. Several evidence-based self-management classes are offered through the Arthritis Foundation including the Arthritis Foundation Exercise Program, the Arthritis Foundation Aquatics Program and the Arthritis Foundation Self-Help Program. Research shows that patients who take part in their own care report less pain, make fewer visits to their doctor and enjoy a better quality of life.

**Resources:**

CDC National Center for Injury Prevention and Control

[www.cdc.gov/ncipc](http://www.cdc.gov/ncipc)

National Highway Traffic Safety Administration

[www.nhtsa.dot.gov](http://www.nhtsa.dot.gov)

The U.S. Administration on Aging

[www.aoa.gov](http://www.aoa.gov)

National Institute of Arthritis and Musculoskeletal and Skin Diseases

301-495-4484

[www.nih.gov/niams](http://www.nih.gov/niams)

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