

## **I've Fallen and I Hurt Myself**

Who hasn't experienced loss of balance that causes a fall? It can be unnerving, embarrassing and it can even lead to an injury. Take the 70 year old grandmother who has arthritis in both knees. She was walking up her wooden steps when the third step gave away, causing her to fall backwards to the ground. Fortunately, she only sustained minor scraps to her legs and hands. Another example is of the day care worker who was 7 months pregnant. She was not as fortunate. When she tripped, she fell and fractured her ankle. Now she has to spend the rest of her pregnancy in a cast and has to use crutches to walk. A loss of balance was involved in both of these examples.

According to the Centers for disease Control and Prevention (CDC), falls are the leading cause of injury deaths and the most common cause for non fatal injuries and hospital admissions for trauma. More than one third of adults ages 65 and older fall each year in the United States. This causes the potential for many injuries. Decline in balance can be so gradual that it may not be detected until a person has his balance assessed during physical therapy or after is an injury.

### **What is Balance**

Balance is the ability to control and maintain your body's position as it moves through space. We are constantly adjusting our balance whether we are sitting, walking or just standing on different surfaces. Your brain, muscles, nerves and bones work together to maintain your body's balance and to keep you from falling. Balance also relies on sensory information: visual, spatial orientation and adjustments provided by your inner ears. This information works together automatically to keep you mobile and to prevent falls. If you have a deficit in any of these areas, your sense of balance can be affected. More than 95% of hip fractures among adults ages 65 and older are caused by falls (Grisso et al. 1991).

### **Preventing falls**

The CDC ([www.cdc.gov/ncipc/duip/preventadultfalls.htm](http://www.cdc.gov/ncipc/duip/preventadultfalls.htm)) includes these tips on fall prevention for older adults:

- Exercise regularly.
- Have your doctor or pharmacist review your medicines, including over-the-counter medicines.
- Have your vision checked at least once yearly.
- Get up slowly from sitting or lying down.
- Wear shoes inside and outside the house.
- Improve the lighting.
- Remove throw rugs or use them with a nonslip backing.
- Coil or tape cords and wires next to the wall.
- Fix loose or uneven steps.

- Keep objects like papers, books and toys off the floor.

The Physical Therapist often treats patients after an injury resulting from a fall. The therapist then performs an assessment to identify deviations during complex movements such as walking, running, twisting and turning. Patients can be trained to improve their balance and this is done through therapeutic exercises, balance and coordination activities. A good strategy is to be screened for balance problems in order to identify the risks for injury before it occurs.