

Prevention of Slip, Trip, Falls and Injury

By Erik Nieuwenhuis, Physical Therapist at St. Luke's Rehab Services 402-494-2065
Nieuween@stlukes.org

Have you ever slipped, tripped, or fallen? Your first thought is always, "I hope nobody just saw what happened." Each of us has at one time takin' the plunge by walking too fast on an icy surface, tripped over that crazy crack in the sidewalk, or has forgotten or missed a step while taking the stairs...OOppss. For others of us this may be more of a daily occurrence. Second only to motor vehicle accidents; slips, trips and falls are the most frequent accidents leading to personal injury. According to the National Safety Council (NSC), the major cause of accidental deaths and injuries in America are slip-and-fall accidents.

Most injuries are ligament sprains or muscle strains, but a significant percentage of falls result in fractures to the hip or wrist. Estimates are that 15 to 20 percent of all workers' compensation costs are due to slips, trips and falls. This is not surprising when you consider that the back is the most frequently injured body part in a fall. The average back injury ranges from \$7,000-\$25,000 in direct costs, whereby indirect costs typically double this amount.

Would improved flexibility, especially of my hips and back reduce the risk for injury? Some of you may be thinking, "If only I had the flexibility I had when I was younger." Think about the awesome flexibility our children or grandchildren have. They can tumble down 10 plus stairs, crash on their bikes/ roller blades or skates, have crazy crashes while sledding in the winter (Will we ever have real snow again???). They can do this and not fracture bones, tear their ACL or sprain their backs because their bodies can absorb the shock of the fall/ accident. Their bodies are like Gumby; soft and very pliable muscles and bones.

There are two basic types of falls; Elevated falls and same-level falls. Same-level falls occur most often with lower back sprain and/ or strain, hamstring strain, but elevated falls are typically more severe resulting in fractured bones and occasionally death.

Most same-level falls can be categorized as slip and fall, trip and fall or step and fall types. In these types of falls the person is injured when he or she hits the walking or working surface or strikes an object during the fall.

More than 60 percent of elevated falls are of less than 10 feet. Examples of elevated falls include those from ladders, from vehicles and equipment, from loading docks and falls on stairs (That never happens...HA, hA).

The NSC cites fall hazards such as hidden steps, smooth surfaces, wet floors, loose or irregular surfaces, oil and grease. Other hazards to be considered include; unsafe stairs, obstructed aisles, improper shoes, moving too fast (Never, not in today's slow paced society) and poor lighting.

Good housekeeping in walk and working areas can contribute to safety and the prevention of falls. One method which promotes good housekeeping in work

environments is the painting of yellow lines to identify working and walking areas. These areas should never be obstructed by objects of any kind.

The hazards of a slick surface can be compounded by wearing the wrong footwear. Some examples of slippery surfaces include; cool rooms, freezers, deli areas, meat rooms, bakery areas and storage areas. It is no wonder that slip, trip and fall accidents account for about 80 percent of all accidents that happen in food service establishments. Providing dry walking and working surfaces and slip-resistant footwear is one answer to slips and their resultant fall and injury. Another key is having good hip and back flexibility. The closer you can get your body to Gummy (increased flexibility) the better your body can absorb shock thus reducing risks for injury. In areas where the walking and working surface is likely to be slippery, non-skid strips or floor coatings can be used.

Inadequate lighting, wearing sunglasses in low-light areas, moving between areas of different lighting levels, and carrying oversized objects can obstruct one's vision and result in a slip or a trip. Walking too fast or running is also a major problem, as is not using handrails. Exposure to chemicals or electricity may also have a detrimental effect on a person's behavior or performance that may increase the risk of a fall.

Workers at high elevations such as ladders, platforms or catwalks should be protected from falling by some kind of protective device and/ or equipment. Numerous devices are available including; a protective cage, a lifeline, lanyard, safety belt or harness. The key is to make sure that using this safety equipment and devices is enforced and ALWAYS used! Your life depends on it.

Falls from ladders can be prevented by all of the following safety practices: The ladder should be made of an appropriate material (do not use a metal ladder near electricity), be of an adequate length, be equipped with slip-resistant pads, be set at an appropriate angle, be inspected for cracks, loose rungs, splinter and sharp edges, keeping them clean and dry and to use both hands to climb up and down on the ladder.

Falls from vehicles and equipment can be deterred by not allowing extra riders, keeping steps clean and dry, using a good hand-hold before stepping up and down. One should always face the vehicle or bed of a truck or wagon when stepping up or down.

Also, safety signs should be posted where hazards cannot be corrected or removed. Such signs should be changed frequently. The goal is to NOT slip, trip or fall, but the possibility of a fall still exists. The best ways to prevent this from occurring include;

- WorkSmart—Use all safety equipment and common sense procedures to reduce the risks.
- Do daily stretching exercises to increase your flexibility; especially of the hips and back....Be GUMMY
- How is your balance and stability standing on one foot and reaching with your other leg or one or both hands in all different directions and at various heights?? This is another key question to ask yourself.

The most important protection for your feet is wearing proper footwear for the job you have.

- The soles and heels should be slip-resistant.
- The toe of the shoe should resist crushing injuries (Steel Toe).
- The shoe should support the ankle and foot by having a good arch support or cushion.
- You can also purchase arch supports or cushions for your shoes and work boots that will reduce stress to your feet, knees and back. Good brands are Spenco and SOF which can be purchased at many shoe stores.

Establishing safety policies and practices in the workplace can significantly reduce the number of injuries and deaths due to slips, trips and falls. Here are some recommendations for consideration:

- Owners, managers and supervisors must make a commitment to prevent and enforce methods to reduce the risks of accidental slips, trips and falls.
- Conduct regular and frequent inspections of working and walking areas to identify environmental and equipment hazards which could cause slips, trips and falls.
- Provide extensive training for all employees on the prevention of slips, trips and falls.
- Require all workers to wear proper footwear for their work and environment.
- Prohibit riders on tractors, trucks and other self-powered or towed equipment unless a safe seat or workstation is provided.
- Report, record and thoroughly investigate all slips, trips and falls. Take corrective action immediately.
- Encourage and do daily WorkSmart Stretching to increase flexibility and reduce daily fatigue to your working, aging body.

You must remember that your body can only protect you from injury if you give it what it needs to protect you; Flexibility, Strength Training, CardioVascular Activities, Proper Daily Food Choices, Water and SLEEP. Goodnight...ZZZZzzzzzz

Erik Nieuwenhuis, MS, PT

St. Luke's Rehab Services – Physical Therapist

494-2065 Ext. 260

Nieuween@stlukes.org