

BEWARE OF SLIP AND FALL HAZARDS

There are two types of falls: elevated falls and same-level falls. Elevated falls are usually more severe, but same-level falls occur more frequently. Same-level falls are described as slips or trips, and injuries that occur when a person hits a walking or working surface or strikes another object during a fall.

Slips and Falls are caused by a slippery surface and compounded by wearing the wrong footwear. The force that allows you to walk without slipping is commonly referred to as "traction." Common experience shows that dry concrete sidewalks have good traction, while icy surfaces or freshly waxed floors can have low traction. Technically, traction is measured as the "coefficient of friction" (**COF**) A higher coefficient of friction means more friction, and therefore more traction. The coefficient of friction depends on two things: the quality of both the walking surface and the soles of shoes.

To prevent slips and falls, a high COF between the shoe and walking surface is needed. The combination of providing dry walking and working surfaces and slip-resistant footwear is the answer to slips and their resulting falls and injuries. High heels with minimal heel-to-surface contact, taps on heels, and shoes with leather or other hard, smooth-surfaced soles lead to slips, falls, and injuries. Shoes with rubber-cleats, tread, soft soles and heels provide a high COF and are recommended for most work. In work areas where the walking and working surface is likely to be slippery, non-skid strips or floor coatings can be used.

Trips and Falls occur when the front foot strikes an object and is suddenly stopped. The upper body is then thrown forward, and a fall occurs. As little as a 3/8" rise in a walkway can cause a person to stub a toe, which can result in a trip and fall. This can also happen when climbing up a flight of stairs – all that is necessary for a person to trip and fall is a slight difference between the heights of two adjacent steps.

Step and Falls is another type of working and walking surface fall. It occurs when the front foot lands on a surface lower than expected, for example, when a person unexpectedly steps off a curb in the dark. In this type of fall, the person normally falls forward. A second type of step and fall occurs when one steps forward or down, and either the inside or outside of the foot lands on an object higher than the other side. The ankle turns, and one tends to fall forward and sideways.

Proper housekeeping in working and walking areas will contribute to safety and the prevention of falls. One method which promotes good housekeeping in work environments is the painting of yellow lines to clearly identify working and walking areas. Striped areas should mean that no object should be placed in these areas. These areas should never be obstructed, and dropped and spilled materials should be removed immediately.

Adequate lighting to ensure proper vision is also important in the prevention of slips and falls. Moving from light to dark areas, or vice versa, can cause temporary vision problems that can cause a person to slip or trip over a misplaced object. If a person carries an oversized object that can obstruct his/her vision, the result could be a slip or a trip. This is a particularly serious problem on stairs.

In addition to wearing the wrong footwear; there are specific behaviors which can lead to slips, trips, and falls. Walking too fast or running can cause major problems. In normal walking the most force is exerted when the heel strikes the ground. In fast walking or running; one lands harder on the heel of the front foot and pushes harder off the sole of the rear foot. Therefore, a greater COF is required to prevent slips and falls. Rapid changes in direction create a similar problem.

Other problems that can lead to slips, trips, and falls include: distractions (not watching where one is going), wearing sunglasses in low-light areas, and failure to use handrails. These behaviors, which are caused by lack of knowledge, impatience, or bad habits developed from past experiences, can lead to falls.

Safety signs to remind people of slip, trip, and fall hazards are helpful and should be changed frequently. Established policies and practices can be implemented to significantly reduce the number of injuries due to slips, trips, and falls.