

# SAFEGUARDING YOUR EMPLOYEES AND CUSTOMERS: MITIGATING SLIP AND FALL RISKS

## THE PROBLEM

Have you ever slipped, tripped or fallen? Perhaps you have watched a television show where a slip, trip and fall was the punch line for a joke. Slips, trips and falls are no joke, however, and rank among the most frequent types of accidents, second only to motor-vehicle accidents as a cause of death. According to recent information from the Bureau of Labor Statistics, they are second in the number of disabling injuries in occupations, accounting for nearly 25 percent of all disabling injuries.

More than a million people suffer from a slip, trip or fall injury each year; over 17,000 die as a result of a slip and fall alone. Slip or trip and fall injuries account for 15 percent of all work-related injuries and are the second most common cause of work fatalities. Between 20 to 30 percent of people experience an injury after falling, with an estimated 8.9 million visits to the emergency room every year.

The long-term effect of these incidents can increase insurance rates, which leads to an increase in insurance premiums.

They not only have a financial impact but also a personal cost with the temporary or permanent loss of a valued member of the community.

Slips, trips and falls are expensive, disruptive and painful and can have tragic consequences. Below are some strategies a business can implement to assist with the prevention of slip, trip and fall injuries.

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# RECOMMENDED CONTROLS

## MANAGEMENT RESPONSIBILITY:

It all starts with management of the business. Managers must take an active approach to preventing these types of injuries by accepting this responsibility, setting a good example, and holding staff accountable for slip and fall prevention. Any program requires a commitment from leadership to fund appropriate interventions. This includes, but is not limited to: superior floors and floor treatments, lighting and slip-resistant footwear.

## EDUCATION AND TRAINING:

Employees are frequently unaware of the hazards associated with slips, trips and falls. All employees should be provided with training and education on the seriousness of slip and fall accidents, any hazards specific to their organization or industry, and the actions necessary to reduce the risk of injury. Training should be conducted as part of the new employee orientation process and at periodic intervals thereafter. Training should cover at a minimum the causes of slips or trips and falls, how to recognize the hazards, the proper way to clean the flooring and any special precautions specific to the organization.

**TRAINING SHOULD BE  
PART OF THE NEW  
EMPLOYEE  
ORIENTATION  
PROCESS**



## HAZARD SURVEILLANCE:

Customer incident reports, past workers compensation claims, periodic inspections by management and employee interviews can prove to be valuable tools in identifying problem areas in your building. Periodic analysis of these records will assist with setting goals and priorities for correction of these hazards. Hazard surveillance is an essential component of a slip or trip and fall prevention program.

## INCIDENT AND INJURY REPORTS:

All incidents, with or without injury, should be reported promptly to management. Slip, trip and fall hazards need to be corrected as soon as possible. By reporting all incidents in a prompt fashion, even close calls, useful information on the hazards and future opportunities for prevention can be readily assessed before the passage of time clouds the facts surrounding the incident.

## FLOOR SURFACE SELECTION:

The choice of flooring used within the various areas of a facility is probably one of the most important elements in preventing slip, trip and fall accidents. An important factor to consider is the material's wet static or wet dynamic



coefficient of friction rating prior to the installation of the floor. This rating indicates whether the material provides the traction characteristics that help prevent slipping when the flooring material is wet. When purchasing flooring materials, you should always look for the National Floor Safety Institute's (NFSI) guidance label to determine the wet static and wet dynamic coefficient of friction ratings. You should insist on products that have a high traction rating be installed in your facilities. Materials that have lower ratings under wet conditions are generally not a good choice. The right floor offers optimum slip-resistant qualities and is durable in high-traffic areas.

### **FLOOR SURFACE TREATMENTS:**

If existing floors are evaluated and it is determined that surface slip-resistance qualities do not match the environment, then the floors should be replaced using the surface selection process listed above. If replacement of the floor material is not feasible, then an appropriate floor surface treatment may help to improve traction. You should only consider treatments that are considered traction enhancing as defined by the National Floor Safety Institute's list of approved products. Some surface treatments to consider are:

- Abrasive floor coatings
- Chemical etching
- Carpeting
- Slip-resistant floor cleaners and polishes

### **HOUSEKEEPING:**

Dirt, grease, water, oils and even residual cleaning compounds are contaminants that can significantly reduce the available traction of your floors. These contaminants leave a residue on the floor that reduces the available traction between the floor surface and the shoe. Over time, these contaminants can even polymerize on the surface of the floor, which would require the floor to be treated using methods listed above to return the surface to a high traction one.

You should always apply floor cleaners or waxes in accordance with the manufacturer's recommendations. Floor type, contaminants and the type of cleaning solvent should be taken into consideration when developing cleaning protocols. Employees should strictly adhere to all floor-cleaning schedules, policies and procedures. Furthermore, floors should be periodically inspected for hazards and evaluated for effectiveness of floor-cleaning protocol.

### **MAINTENANCE:**

Flooring can be damaged during normal wear, through settling of the building structure, or by dropped materials. Deviations in floor surfaces of greater than a quarter inch could cause a trip and fall. It is important to correct these deviations once they have been identified. Until a permanent repair is conducted, you should paint the surface hazard



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with a yellow paint as a caution to pedestrians walking in the area. Failure to quickly identify and repair these deficiencies can lead to injuries.

### **MATS:**

Mats can be very effective at reducing slips, trips and falls. The two main types of matting systems to consider are: entrance mat systems and multipurpose mats. Entrance mats help to keep floor surfaces clean and dry. Multipurpose mats absorb liquids, elevate workers above standing water, provide a slip-resistant working or standing surface and/or provide anti-fatigue properties.

Mats should be selected on the basis of the environment for which they will provide protection and the expected contaminants. Mats should have a slip-resistant backing or otherwise be secured to prevent movement and create a tripping hazard. (Beveled or flat edges help to reduce trips.) Mats should be periodically inspected, properly maintained and replaced when they no longer provide the level of protection required for the environment they are located.

### **SLIP-RESISTANT FOOTWEAR:**

While you can't dictate the type of footwear your customers may wear in your business, you can set expectations for employees regarding this subject. Slip-resistant footwear can help reduce the likelihood of slips and falls. Slip-resistant footwear should be required for all employees and be selected on the basis of the common floor contaminants. You should review the environment to determine if the floor may become greasy or be wet for an extended period of time.

The two major components to consider when selecting appropriate slip-resistant footwear are tread design and tread material. Chevron or cleat-designed soles with wide channels are definitely the best for slippery situations because of the potential suction or squeezing action they may provide. The sole of the shoe should be made of a nitrile rubber material, which has proven to be resistant to various types of floor contaminants.

There are many reputable suppliers for slip-resistant shoes. Employees should be provided with a range of options so they will be more inclined to wear their shoes on a regular basis. The most important aspect of any slip-resistant footwear policy is the strict enforcement of the policy by your management team.

### **FLOOR TRACTION ASSESSMENTS:**

Periodic floor assessments are an essential component of managing slips and falls. Not only do these assessments help to determine floor traction, but they can help to evaluate the effectiveness of various solutions including floor surface materials, cleaners and treatments. A qualified walkway auditor should be consulted to complete these assessments. The National Floor Safety Institute provides a free walkway auditor locator on its website.



## WARNING SIGNS AND INSTRUCTIONS:

Warning signs and safety barricades should be used whenever a slip, trip or fall hazard has been identified but can not be corrected or removed immediately. A safety barricade system is normally the preferred method to control the hazard as it restricts and/or redirects pedestrian traffic away from the dangerous area. Placing this equipment in various locations of your business will reduce the time needed to respond quickly to a walkway hazard.

**WARNING SIGNS SHOULD BE USED WHENEVER A HAZARD HAS BEEN IDENTIFIED BUT CAN'T BE FIXED IMMEDIATELY**



If safety signs are used instead of barricades, then they should be placed in close proximity to the slip or trip and fall hazard to warn pedestrians. Signs should be removed when the hazard has been corrected. Recent evidence suggests that “humorous” warnings may be more effective than simple warning signs. For example, “Caution, Wet Floor” is less effective than “Wet Floor, Skate Don’t Slip.” All warning signs and equipment should follow the guidelines established by the American National Standards Institute in 2011 - ANSI Z535.4 Product Safety Signs and Labels.

## INCLEMENT WEATHER PRECAUTIONS:

Inclement weather precautions should be developed and assigned to specific employees when there are certain poor weather conditions. One important precaution is the placement of additional walk-off mats at all entrance doors. Mats should allow for a minimum of 12 paces in the normal direction of travel in order to absorb water or snow that may accumulate at entrances during inclement weather. Excessively wet mats should be replaced periodically with dry ones. Under severe conditions, consider posting a staff member at each entrance to warn employees and customers entering the area about the slipping hazard and to manually mop any excess water that may accumulate.

For snow and ice, a combination of preparatory and ongoing methods should be employed. Pre-storm application of anti-icers or de-icers can accelerate the melting process. Walkway surfaces should be regularly monitored and treated for refreezing. Roof downspouts should be directed away from walkways or into drain systems. Special consideration should be given to the snow accumulations so that they do not create a slip and fall hazard upon melting or refreezing.



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### **PARKING LOTS:**

Slip, trip and fall exposures can be mitigated in parking lots by making sure that the surface is stable and level. Speed bumps located in the walking area of pedestrians should be eliminated. If speed bumps are necessary, they should be painted with a contrasting color that has a slip-resistant aggregate. All wheel stops should contrast in color with their surroundings and be positioned in the center of the parking spot. Good lighting in the parking area is important for walkway safety.

## **SUMMARY**

Slips, trips and falls can be a significant problem for a business. The common recommended controls listed above can assist management in avoiding these costly, disruptive and painful occurrences. Customers and employees alike will appreciate the increased effort to improve safety.

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# **CUSTOMERS AND EMPLOYEES WILL APPRECIATE THE EFFORT TO IMPROVE SAFETY**

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