

Michigan Municipal Workers' Compensation Fund Safety and Health Resource Manual

Reducing Employee Slips, Trips and Falls

The Problem

Work place falls injure or kill thousands of people annually. In addition, for every serious injury, employees lose an average of 31 workdays. The costs associated with these injuries range from \$500,000 to \$1 million, mostly from third party lawsuits. Members of the Michigan Municipal Workers Compensation Fund share in this national trend.

Public agency employees often slip, trip, and fall and, as a result, sustain injuries. These injuries result in costly claims, lost work time, lower productivity, and hidden costs (including increased administrative costs that result from addressing the problem). Although Fund members share the cost of benefits with their workers' compensation insurer, they bear the hidden costs entirely by themselves. For this reason, both the Fund and its members can benefit if employers work to reduce the likelihood of their employees' being injured in this way.

A number of variables can contribute to the frequency and severity of slips, trips and falls. These include slippery or deteriorated walking surfaces, improper construction and poor design of walking surfaces, and human factors. Some variables are more controllable than other variables.

Solutions

It is unlikely that you can eliminate slips, trips, and falls. However, there a number of steps you can take to reduce the number of incidents as well as the severity of the injuries that do occur.

Consider walking surfaces when remodeling or during new construction. Avoid terrazzo, glazed ceramic tile, marble, and granite. These building materials can be especially slippery when wet. Consult with an architect who is familiar with the **coefficient of friction** of walking surfaces.

Review the walking surfaces of municipal buildings. Replace slippery surfaces when possible and take steps to reduce slipperiness if replacement is not feasible. You can measure the coefficient of friction on any walking surface to determine its potential for hazards. The League's Loss Control Services has the equipment to determine this factor.¹

If replacement is not possible, maintain the area in a manner that will reduce the hazard. A good source of information is a reputable building maintenance supplier. With the proper equipment, materials, maintenance, and employee training, you can significantly reduce the potential for slips, trips, and falls.

Identify and correct significant differentials in surface continuity. Falls frequently occur when two significantly different walking surfaces require a person to abruptly change their gait and stride. Examples are (1) the change in surface from a ramp onto a regular walking surface, (2) the change from a parking lot to bumper stops, (3) the change from a street to a curb, and (4) broken pavement. Eliminate or reduce differentials as much as possible or post signs to warn people of the potential hazard.

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Identify and correct significant height differentials. As little as 1/4" differential can cause a trip and fall. Carpet to tile, tile to carpet, different levels of carpet, defects in construction or deterioration all contribute to this variable. Eliminate or reduce differentials when possible.

Reduce fall hazards by installing the proper protective equipment to protect your employees' safety. Roof ladders, meter pits and lift stations, as well as other ladders that exceed 20' in length must have fall protection. Stairways should have adequate railings, proper riser and tread depth, and proper tread friction to eliminate or reduce slips and falls. Some agencies install aluminum tread edges on their stairways.

Implement regular inspections to identify and correct defects, deterioration and other slip, trip, and fall hazards. Practice good housekeeping. Conduct regular, documented self-inspections. Instruct employees to clean their work area and not to leave tools, cords and other hazards lying on the floor. Once you identify a hazard, either correct it immediately or post warning signs and a barricade to reduce the possibility of injuries.

Conduct a thorough investigation of all reported slips, trips, and falls. Investigations are usually the responsibility of the supervisor, but your agency's Safety Committee may assume this responsibility. The purpose of the investigation is to determine the cause of the accident and to develop possible solutions. Once the cause is determined, you should remedy it immediately to prevent another incident.

Develop a planned maintenance program. Determine your maintenance needs for cleaning and providing safe walking surfaces. Make sure that you inspect and clear outdoor surfaces frequently, especially during colder months. Monitor areas where water frequently collects, such as around drinking fountains and slop sinks.

Provide other means to reduce the potential for loss. Review the need for mats or runners, install adequate lighting, and install gutters to deflect water run-off.

Review causes of slips, trips, and falls with employees. Make employees aware of what contributes to the problem. Identify any special procedures or areas that need special attention. Focus on mutual goals rather than assigning blame. Review techniques to reduce slips, trips, and falls with employees whose positions do not allow for discretion in walking surfaces. For example, police officers frequently slip and fall during the capture of an assailant. A meter reader who must enter a structure to read a meter may not be able to avoid the typical hazards that are normally controllable in a publicly owned building.

Do not forget to reduce the hazards in vehicles and equipment. Install anti-slip coatings or tape on the steps of vehicles and equipment. Make sure dump trucks have securely attached steps and handles welded to the dump box body.

Review the type of footwear that employees are wearing. Some communities buy or contribute to the cost of footwear for their employees. Make the right choice for the employee based on indoor or outdoor weather, the type of work or activities, the type and conditions of walking surfaces, and comfort. Discuss the possibility of reducing the hazard with a foot wear specialist. Include the employees in this decision process. Consider this item's impact on the potential for reducing back injuries.

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Involve your employees in the process of reducing injuries. Committees, incentive programs, and recognition for safety accomplishments may individually or collectively result in a stronger and more community-wide interest in the problem and its solution

Conclusion

The above recommendations may appear to have little or no effect on your ability to control slips, trips, and falls. However, acting on even a few of them can contribute significantly to a reduction of your exposure to slip, trip, and fall accidents. The reduction can benefit you in decreased claims and associated costs, a reduced number of lost workdays, and increased productivity.

If you need help or more information about preventing slips, trips, and falls, contact MML Risk Management Services or the League's Loss Control Services.

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Slip, Trip, & Fall Hazard Self Assessment

Employers experience direct and indirect costs when employees are injured as a result of slips, trips, and falls. Not only does the employer share in the cost of health care and wage benefits, but they also pay the cost of lost productivity. Many employers erroneously believe that they cannot control this type of injury. However, instituting even a few precautions can significantly reduce injuries to employees. To determine what alternatives are available to you, ask yourself the following questions.

Does your organization:

1. Regularly review walking surfaces?

Yes No

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- Consider the following when reviewing surfaces:**
- Avoid surfaces such as terrazzo, ceramic tile, marble, and granite.
 - Replace surfaces that are damaged or are hazardous.
 - Purchase maintenance supplies that do not increase hazards.

2. Identify the causes of slipping, tripping, and falling hazards?

Yes No

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- Identification of hazards includes:**
- Involving your employees in the identification of hazards.
 - Investigating injury reports to determine possible causes.
 - Implementing regular inspection programs.

3. Act to reduce slipping, tripping, and falling hazards?

Yes No

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- Reducing hazards can include:**
- Changing maintenance procedures or products.
 - Installing protective equipment such as railing, signs, and guards.
 - Redesigning walking patterns to eliminate hazards.
 - Design safety in your equipment purchases.

4. Educate your employees to prevent slipping, tripping, and falling hazards?

Yes No

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- An Education Program Should Include:**
- Informing your employees of possible hazards;
 - Posting appropriate signs;
 - Training maintenance personnel on preparing surfaces properly;
 - Assigning inspection responsibilities;
 - Encouraging employees to report hazards.

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Conclusions



If you were able to honestly answer “yes” to all four questions and your organization is following most or all of the suggested practices, then your organization has reduced its exposure to future employee injury claims. You should congratulate yourself.



If you are unable to answer “yes” to one or more of the four questions, your organization has a greater exposure to an employee injury claim. Missing components of one or more of the four recommended practices may also indicate a deficiency in your current program. You should take one or more of the following actions:

- Correct any deficiency that may exist.
- Contact the Michigan Department of Labor, Safety Education and Training (SET) Division at 517/322-1809.
- Contact the MML Risk Management Services at 800/653-2483; or
- Contact Loss Control Services at 800/482-0626.



Important Telephone Numbers

MML Risk Management Services	800/653-2483 or 734/662-3246
Loss Control Services	800/482-0626

NOTE:

This document is not intended to be legal advice or implied to identify all slip, trip, and fall related exposures. Public agencies are encouraged to contact their safety specialist for assistance in implementing these or other changes.