



# Slips, Trips, and Falls Prevention Guidebook

LOSS CONTROL



**WESTERN NATIONAL**  
INSURANCE

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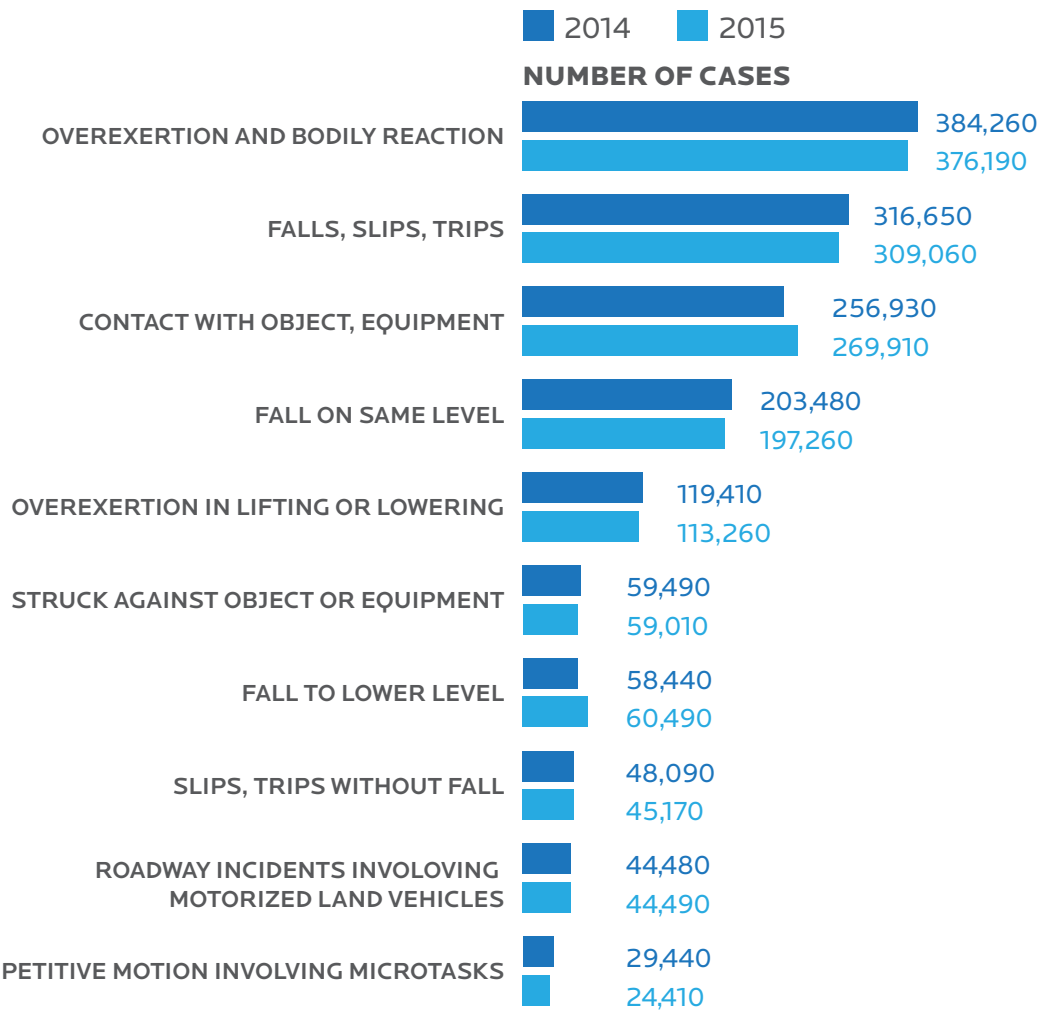
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## INTRODUCTION

Slips, trips, and falls (STFs) make up the majority of general industry accidents. They cause 15% of all accidental deaths, and are second only to motor vehicles as a cause of fatalities. STFs are also one of the most frequently reported injuries. The U.S. Bureau of Labor Statistics reported a total of 4,836 fatal work injuries for calendar year 2015. Of the fatality cases, 800 were associated with slips, trips, and falls. In addition, there were 309,060 cases associated with slips, trips, and falls that resulted in nonfatal occupational injuries and illness. The costs of STFs can be substantial, especially when the median days away from work to recuperate, is 12 days.

## LEADING NONFATAL OCCUPATIONAL INJURIES



Source: Bureau of Labor Statistics

## PURPOSE

The purpose of this Prevention Guidebook is to help our customers become self-sufficient in better controlling slip, trip, and fall exposures. It will provide guidance in identifying areas that have the greatest potential for incidents, how to prioritize these hazards, and develop plans.

## COMMON CAUSES AND SOLUTIONS

### Indoor

#### Floor Selection

One of the most important factors in preventing STFs is the choice of flooring. Management should take the time to thoroughly evaluate each type of flooring material, whether it is the existing material or a new material that is to be used.

Identify what type of walking surface is installed and the material's slip-resistant rating. Surfaces such as natural stone, asphalt, brick, finished concrete, and carpet normally provide adequate slip resistance. Hard, smooth surfaces, such as vinyl composition tile, ceramic tile, terrazzo, and marble can become slippery when wet.

The location of the flooring material should also be considered. For example, material used near entrance/exit doors should be reviewed to ensure it will function with minimal maintenance under wet and snowy conditions.

#### Floor Maintenance

Flooring is damaged during normal wear; failure to quickly identify and repair damage can lead to injuries. Improper cleaning and finishing techniques can also be hazardous by making floors slippery. To prevent this, floor cleaner or wax should be applied in accordance with the manufacturer's recommendations and with the slip-resistant rating in mind. Wax products can actually reduce the slip-resistant rating of a floor since many are not designed for high-speed buffing. It is critical to ensure that the floor wax is compatible with the flooring material. Products that combine floor cleaner and wax are **never** acceptable for commercial walkways because of the build-up of residue that naturally occurs with their use.



Regularly scheduled premises inspections should occur to ensure floor maintenance. Floor care maintenance records should be kept on file, including copies of any maintenance agreements with outside vendors.

#### Proper Footwear

The design and condition of shoes can be a significant contributors to STFs. Management should take the time to educate their employees about the potential hazards created by improper shoe selection and that footwear should match the activity being performed. It should be decided what kind of footwear program the company will have: company purchase, employee purchase, shared cost, or loaners. (See details in the chart below). Footwear policies should be communicated and consistently enforced.

It is difficult for management to have control over what shoes customers wear, so flooring selection and maintenance protocols should be aimed to address shoe selections that present the greatest hazards, such as high-heel shoes.

## Common Footwear Programs

Program	Pros	Cons
Company Purchase	<ul style="list-style-type: none"> <li>• Consistent protection</li> <li>• Consistent look/style</li> <li>• Easy to ensure daily use</li> <li>• Age of shoe can easily be tracked</li> <li>• Consistent replacement schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Cost</li> <li>• Employee turnover</li> <li>• Administration of program</li> </ul>
Employee Purchase	<ul style="list-style-type: none"> <li>• Shoe purchase can be made through payroll deduction</li> </ul>	<ul style="list-style-type: none"> <li>• Need to ensure that correct shoe is purchased</li> <li>• Difficult to enforce</li> <li>• Employees are less likely to buy replacement pair</li> <li>• Cost burden to employees</li> </ul>
Shared Cost	<ul style="list-style-type: none"> <li>• Vested interest from both employer and employee</li> </ul>	<ul style="list-style-type: none"> <li>• Cost burden to employees</li> </ul>
Loaners	<ul style="list-style-type: none"> <li>• Cost savings if employee turnover is prevalent</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple sizes</li> <li>• Sanitation concerns</li> </ul>

### Stairwells

Poor illumination, irregular steps, absent or broken handrails, and loose carpet can all contribute to STFs in stairwells. To combat these hazards, re-install or stretch carpets that bulge or have become bunched on stairs, and ensure the area is properly illuminated and the handrails are secure and in proper working condition. Visibility pertains to more than just lighting; glare, shadows, and environmental factors such as mist, steam, and condensation all need to be considered. Poor visibility increases the adverse impact of surface and level changes.

## Outdoor

### Walkways

Walkways should be well maintained, free of debris, and allow for proper drainage so water does not collect on them. They should always be properly illuminated, especially if there will be pedestrian traffic at night.

### Ramps

Ramps enable disabled persons to move into and out of buildings without difficulty. The Americans with Disabilities Act (ADA) states that ramps should not exceed a 1:12 ratio, which means every inch of rise needs 12 inches of ramp. For existing sites, buildings, and facilities the exception is ramps shall be permitted to have running slopes steeper than 1:12 complying with the below table where such slopes are necessary due to space limitations.

Slope	Maximum Rise
Steeper than 1:10 but not steeper than 1:8	3 inches (75 mm)
Steeper than 1:12 but not steeper than 1:10	6 inches (150 mm)
*A slope steeper than 1:8 is prohibited	

The ADA limits the longest single span of ramp prior to a rest or turn platform to 30 feet. If it exceeds this there must be an intermediate platform. Ramps that rise greater than six inches must have handrails on both sides that are continuous for the full length of the ramp. Handrail gripping surfaces and any surfaces adjacent to them must be free of sharp or abrasive elements.

The ramp surface must be stable, firm, and slip resistant. Stable surfaces resist movement, while firm surfaces resist deformation. Hardened materials, such as concrete and asphalt, are sufficiently firm and stable. Loose materials, such as gravel, will not suffice unless properly treated to provide sufficient integrity and resilience. Surfaces must also be slip resistant to minimize hazards. The same caution practiced indoors should be applied outdoors as well.

### Parking Lots

STFs exposures in parking lots can be mitigated by making sure the surface is regular and smooth. Any painted surface (e.g., curbs, speed bumps, crosswalks) should be reviewed to ensure abrasives were utilized to avoid creating a slippery surface. Pedestrian paths, such as crosswalks, should be clearly marked, unobstructed, and adequately lit. Speed bumps should be painted a bright color and located in areas that are not in the direct walkway of pedestrians. Wheel stops should also be painted a bright color and positioned in a way that prevents parked vehicles from extending into a pedestrian walkway.



### Snow and Ice

Each winter, snow and ice increase the risk for STFs. The threshold for clearing snow and ice may vary among local ordinances. For example, one ordinance may have a time threshold while another has a total accumulation threshold. The best practice to follow is to clear snow and ice as soon as possible, since compliance with a local ordinance does not fully protect an organization from STF liability.

Lack of traction is an obvious reason for most slip and fall incidents. Restoring traction on surfaces involves removal of the snow and/or ice and applying rock salt or other ice melt products to the walking surface. All potential walking surfaces should be cleared and continually monitored.

Plans for snow and ice control should be in writing and cover preparation, responsibilities, supplies, removal processes, documentation, and monitoring. Procedures should be prioritized based upon traffic and known exposure areas. Such areas could be near gutters and downspouts, around drains or low spots, along common walking paths, or spaces between cars in parking lots. Snow and ice should not be deposited in a manner that creates a safety hazard for pedestrians, such as placing accumulation in front of a fire exit door or walkway. A significant loss could occur if a pedestrian were to attempt to climb over a mound of snow.

Entrances and lobbies are significant locations for slips and falls due to smooth surfaces that are aesthetically pleasing being installed over materials that provide slip resistance. Quality matting should be utilized at the door threshold and extend far enough into the building to provide adequate ground to wipe shoes thoroughly. Locations that do not provide adequate scraping and wiping matting must always be on alert when inclement weather occurs. Caution or wet floor signs should be used to give employees and customers notice that the floor is slippery when wet.

When employing third party contractors should be properly insured and produce Certificates of Insurance naming the organization being serviced as an additional insured. Contracts should be in writing and hold the organization being serviced harmless for losses caused by negligence. Providing diagrams and maps indicating the locations of fire hydrants, wheel stops, speed bumps, locations to be plowed, and where to deposit snow will assist contractors when they provide service.

## **SLIP, TRIP, OR FALL ACTION PLAN**

**Provide assistance – Demonstrate** understanding and concern when assisting the injured person. First aid should be provided and emergency medical personnel called for, when required. As soon as possible, report the incident to the appropriate management personnel.

**Document the incident and maintain records – Complete** an incident report at the site of injury as quickly as possible. Give the form to the appropriate management personnel, and keep copies of all incident reports on file.

**Inspect – Review and thoroughly inspect** all incidents. Things to keep in mind during the investigation: Allow appropriate time for the interview process

- Allow appropriate time for the interview process.
- Discuss the purpose of the investigation and emphasize that it is not about finding fault, but gathering facts.
- Avoid questions that imply an employee's bad behavior .
- Ask for the injured employee's advice on prevention.
- Express appreciation for their cooperation.

Facility inspections that focus on STF hazards should be conducted proactively on a scheduled basis. These inspections should record facility conditions and make note of any areas of concern.

**Analyze** – Analyzing the details of STF incidents can assist in addressing problem areas within the organization. A database should be built off of the details gathered from each incident and investigation. Information to consider tracking may include:

- Name of injured employee
- Job title/function of injured employee
- Location of incident
- Footwear
- Body part injured
- Cost of injury

Utilize or create a facility map to track where incidents are occurring and/or where hazards are identified. This will assist in pinpointing problem areas that may require corrective action.

**Educate and communicate** – Just like any other element of an organization's safety program, training and communication are essential components to STF prevention. Topics that should be discussed thoroughly with all employees on a regular scheduled basis include:

- Footwear program and policy
  - Requirements or recommendations
- Housekeeping policies and procedures
- Floor cleaning and maintenance
- Near-miss and accident reporting
- Hazard reporting
- Accountability



## RESOURCES

### Slips, Trips, and Falls Inspection Checklist (Example)

	Yes	No	N/A
<b>Parking Lots</b>			
Well illuminated	X		
Free from potholes or disturbed asphalt	X		
Vehicle parking is properly marked	X		
Curbing and speed bumps are brightly colored		X	
Drain grates are brightly colored		X	
Walkway routes are properly marked	X		
Snow and ice is sufficiently controlled	X		
<b>Outdoor Walkways</b>			
Surfaces are free of cracks, bulges, potholes, or settling		X	
Drainage is adequate and does not accumulate on walkway	X		
Walkways are well illuminated	X		
Surfaces are free of debris	X		
Snow and ice is sufficiently removed	X		
Bike racks, bikes, and landscaping are not intruding into walkway			X
Walking surfaces have a rough, textured finish		X	
<b>Indoor Walkways</b>			
Surfaces are level, free of cracks, bulges, tears, and breaks	X		
Carpets are flat and firmly fastened	X		
Surface changes do not have gaps	X		
Absorbent walk-off mats with nonslip backing used at all doorways leading to outside		X	
Additional mats are stored on site to be used to replace worn/wet mats		X	
Buckets, mops, brooms, and other materials are stored out of the walkway	X		
Hoses and cords are stored out of the walkway	X		
<b>Stairways</b>			
Steps are uniform and in good repair	X		
Handrails are provided, secure, and maintained	X		
Treads have nonslip material		X	
Stairwells, ramps, and landings are well illuminated	X		
Landings and stairways are free of debris	X		



Employee Training			
Employees are trained about slip, trip, and fall procedures	X		
Maintenance employees are provided with product usage training		X	
Written procedures and policies are available throughout building	X		
Proper footwear options have been communicated/made available to employees	X		
<b>Building inspected by [Name, Job title]:</b> Joe Smith, Facilities Engineer			
<b>Signature:</b>		<b>Date:</b> December 12, 2xxx	



### Slips, Trips, and Falls Inspection Checklist

	Yes	No	N/A
<b>Parking Lots</b>			
Well illuminated			
Free from potholes or disturbed asphalt			
Vehicle parking is properly marked			
Curbing and speed bumps are brightly colored			
Drain grates are brightly colored			
Walkway routes are properly marked			
Snow and ice is sufficiently controlled			
<b>Outdoor Walkways</b>			
Surfaces are free of cracks, bulges, potholes, or settling			
Drainage is adequate and does not accumulate on walkway			
Walkways are well illuminated			
Surfaces are free of debris			
Snow and ice is sufficiently removed			
Bike racks, bikes, and landscaping are not intruding into walkway			
Walking surfaces have a rough, textured finish			
<b>Indoor Walkways</b>			
Surfaces are level, free of cracks, bulges, tears, and breaks			
Carpets are flat and firmly fastened			
Surface changes do not have gaps			
Absorbent walk-off mats with nonslip backing used at all doorways leading to outside			
Additional mats are stored on site to be used to replace worn/wet mats			
Buckets, mops, brooms, and other materials are stored out of the walkway			
Hoses and cords are stored out of the walkway			
<b>Stairways</b>			
Steps are uniform and in good repair			
Handrails are provided, secure, and maintained			
Treads have nonslip material			
Stairwells, ramps, and landings are well illuminated			
Landings and stairways are free of debris			
<b>Employee Training</b>			
Employees are trained about slip, trip, and fall procedures			
Maintenance employees are provided with product usage training			
Written procedures and policies are available throughout building			
Proper footwear options have been communicated/made available to employees			
<b>Building inspected by [Name, Job title]:</b>		<b>Date:</b>	
<b>Signature:</b>			



## Slips, Trips, and Falls Incident Form (Example)

Date : December 12, 2xxx

CLAIMANT INFORMATION	
Name: jane Doe	Current employee? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Address: 123 Main Street, #5, City State ZIP	
Home Phone: xxx-xx-xxxx	Work Phone: xxx-xxx-xxxx Ext.3

INCIDENT INFORMATION	
Date and time of incident: December 12, 2xxx 8:00	
Was the incident reported when it occurred? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If no, how and when was it reported?	
Location of incident (be specific): <input checked="" type="checkbox"/> On site <input type="checkbox"/> Off Site	
Main entrance to the building - inside	
Description of incident: Mrs. Doe was entering the building when she tripped on the entryway mat and fell, injuring her knee and wrist. The mat was not flush with the ground so the edge was sticking up.	
Weather conditions: Clear	
Walking conditions: Clear, entryway mat created a trip hazard	
Type and condition of footwear: Women's flat shoes, good condition	
Were there any injuries: If yes, describe: Mrs. Doe scraped her knee and has pain in her wrist, possible sprain.	
Was medical assistance called to the scene? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If yes, who and if any treatment was provided:	

WITNESSES	
Name: John Smith	Phone: xxx-xxx-xxxx
Address: 456 Cherry Lane, City, State, Zip	
Comments: Mr. Smith was in front of Mrs. Doe, holding the door for her as she entered the building.	



Name:	Phone:
Address:	
Comments:	
Name:	Phone:
Address:	
Comments:	

**INVESTIGATION**

Was incident site inspected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, when? (Date/Time) December 12, 2xxx 1:15 PM
inspected by [Name, Job Title]: Gary Clark, Claimants Supervisor	
Conditions at the scene: (e.g., walkway, walking surface, contributing conditions, lighting) Entrance and walkway into building were clear. Daylight when incident occurred but lighting was sufficient. Floors appeared clean, no signs of wet spots. Edge of entryway mat was not flush with ground, causing the edge of the mat to stick up	
Were photographs taken of accident scene? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Were floor mats in place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Conditions of floor mats: Edge of the mat was not flush with floor	
If floor was wet, were caution signs in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Additional Information:	

**CORRECTIVE ACTION**

Fill out and attach the Action Plan Worksheet to describe what actions need to be taken to prevent a reoccurrence.

Report completed by [Name/Department]: Gary Clark, Accounting	Date: 12/12/2xxx
Report reviewed by [Name/Department]: Mary Smith, Building	Date: 12/13/2xxx



## Slips, Trips, and Falls Incident Form

Date:

CLAIMANT INFORMATION	
Name:	Current employee?
Address:	
Home Phone:	Work Phone:

INCIDENT INFORMATION	
Date and time of incident:	
Was the incident reported when it occurred?    Yes    No	
If no, how and when was it reported?	
Location of incident (be specific):    On site    Off site	
Description of incident:	
Weather conditions:	
Walking surface conditions:	
Type and condition of footwear:	
Were there any injuries:    Yes    No	
If yes, describe:	
Was medical assistance called to the scene?    Yes    No	

WITNESSES	
Name:	Phone:
Address:	
Comments:	



Name:	Phone:
Address:	
Comments:	
Name:	Phone:
Address:	
Comments:	

INVESTIGATION			
Was incident site inspected?	Yes	No	If yes, when? (Date/Time)
inspected by [Name, Job Title]			
Conditions at the scene: (e.g., walkway, walking surface, contributing conditions, lighting)			
Were photographs taken of accident scene?	Yes	No	
Were floor mats in place?	Yes	No	
Conditions of floor mats:			
If floor was wet, were caution signs in place?	Yes	No	N/A
Additional Information:			

CORRECTIVE ACTION
-------------------

Fill out and attach the Action Plan Worksheet to describe what actions need to be taken to prevent a reoccurrence.

Report completed by [Name/Department]:	Date:
Report reviewed by [Name/Department]:	Date:



### Action Plan Worksheet (Example)

<b>Organization Name:</b> ABC Company	
<b>Site surveyed/address of incident:</b> 123 Main Street, City, State ZIP	
<b>Created by:</b> Gary Clark	<b>Date:</b> 12/12/2xxx
<b>Subject of issue:</b> Fix main entrance floor mat	

**Describe issue needing corrective action:**

The entryway carpet is not flush with the floor causing the carpet to bunch.

**Describe physical changes needed to improve the condition:**

Affix the floor mat to the surface or replace with a new mat, ensuring that it is flush with the floor.

**Describe administrative changes needed to improve the condition:**

This appears to be a common issue, perhaps Building Operations or the Receptionist needs to physically inspect the entryway mats on a daily or weekly basis.

**Management Team Member responsible for corrective action:**

<b>Name:</b> Mary Smith	<b>Title:</b> Head of Building Operations
<b>Target date for completion:</b> 12/17/2xxx	<b>Date completed:</b> In progress

**Comments:**  
 I will discuss this with the Building Operations group as well as the Receptionist's supervisor and respond to Mr. Clark's action plan by the target date.



## Action Plan Worksheet

Organization Name:	
Site surveyed/address of incident:	
Created by:	Date:
Subject of issue:	

**Describe issue needing corrective action:**

**Describe physical changes needed to improve the condition:**

**Describe administrative changes needed to improve the condition:**

**Management Team Member responsible for corrective action:**

Name:	Title:
Target date for completion:	Date completed:

**Comments:**





## Sample Products for Slip, Trip, and Fall Prevention

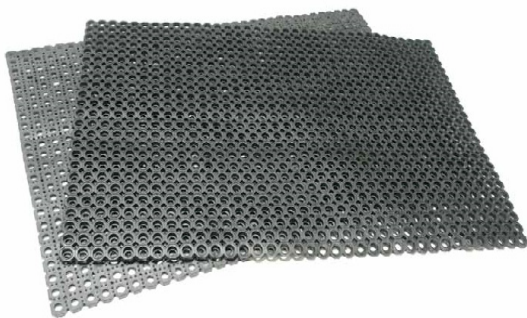
### Anti-Slip Tapes and Strips

- Designed to increase surface traction
- Wide variety of shapes, widths, colors, and textures
- Can be applied to almost any material
- Highly durable
- Common choice for staircases



### Floor Mat

- Increases surface traction
- Durable
- Easy to install
- Drainage mats are common in areas where there is constant moisture



## Slip-Resistant Shoes

- Increases friction between shoes and the walking surface
- An insole with extra cushioning should be used for workers who spend long hours on their feet or on hard surfaces
- Look for “Slip Resistant” stamped on the sole
- Rubber compound outsoles are most effective for slip resistance in environments where oil and grease are present
- A Coefficient of Friction (COF) of .40 or higher is recommended



## Designated Walking Area

- Cluttered work areas and debris left on walking surfaces can lead to slip, trip, or fall incidents
- Use distinct paint or tape to create a designated walking area
- Emphasize the importance of keeping the designated area free of debris



## Cord Covers

- Power cords and cables create a trip hazard
- Use high-visibility cord covers to reduce trips and falls



## Snow and Ice Solutions

- Keep a shovel near entrances to keep walkways clear.
- Ice melt (rock salt, snow melt) should be applied after snow has been removed. Ice melt breaks the bond between the walking surface and ice so that ice can be easily removed. If applying by hand, use gloves and sprinkle on the walking surface in an even layer.
- When purchasing ice melt, pay attention to the effective temperature and if the ice melt could potentially cause damage to plants and the walking surface (e.g., asphalt, concrete, brick).
- Traction footwear such as snow and ice cleats stretch on under shoes/boots to improve traction and safety on ice and snow.





To learn more about how Western National can assist you in your loss prevention efforts, visit [www.wnins.com/resources/index.shtml](http://www.wnins.com/resources/index.shtml)

*Disclaimer: The information and suggestions presented by Western National Insurance Company in this prevention guidebook are for your consideration in your loss prevention efforts. They are not intended to be complete or definitive in identifying all hazards associated with your business, preventing workplace accidents, or comply with any safety related, or other, laws, or regulations.*