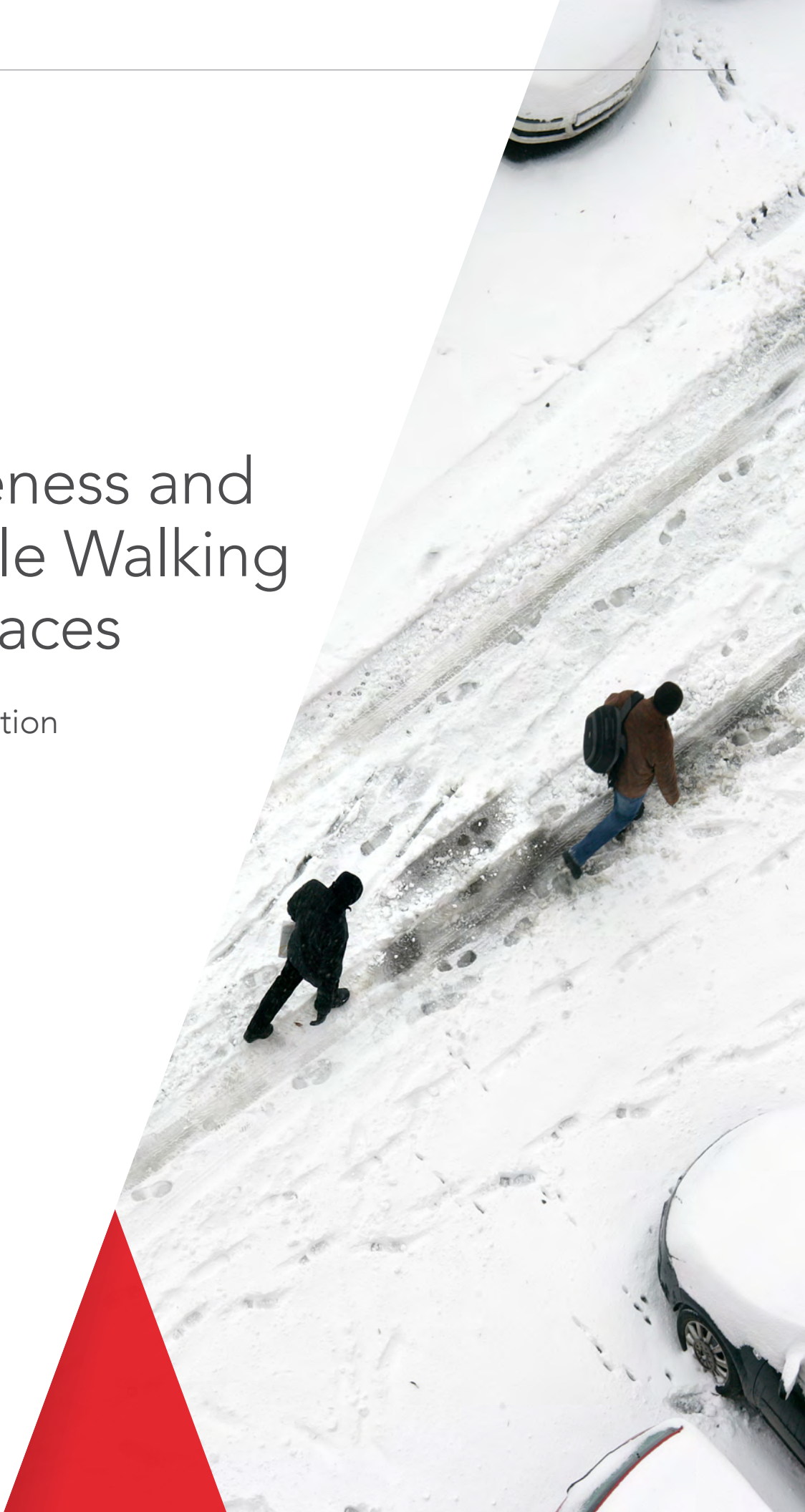




# Risk Awareness and Responsible Walking on Icy Surfaces

Slip and Fall Prevention





Slip and fall prevention programs typically focus efforts on physical conditions and rarely consider the human element when it comes to outdoor surfaces. A property owner may not have any control relative to the general public's actions while walking on their property. However, businesses can pay attention to higher traffic areas of their property, starting with the parking lot. Whether an employee or the general public, pedestrians have a responsibility to their own safety when walking.

### Human Element of Walking

Slips, trips and falls not only occur when potentially hazardous surface conditions are present, but also because of human behaviors such as:

- Inattentiveness/distraction such as looking at a cell phone or texting
- Running
- Carrying larger items that impede vision of the walking path
- Improper footwear for the surface conditions
- Walking in areas not meant as a walkway (i.e., landscaping)

Specific behaviors that affect a walker's ability to maintain balance in snowy and icy conditions include:

- **Carrying items** such as a purse or box while walking on icy surfaces. Any change in center of gravity requires the walker's gait and overall walking method to be adjusted.
- **General walking stride or gait for these conditions.** Normal walking gait includes placing the heel of the lead foot on the ice while simultaneously pushing off the ice with the toes of the trailing foot. If either foot loses traction, the person loses center of gravity and is typically unable to correct the slip. The longer the stride, the more likely a slip will occur.
- **Use of low traction footwear.** Appropriate footwear for icy surfaces is a critical factor. If the footwear provides a higher level of traction, the initial slip may not occur. Leather soles or high-heeled shoes are not considered to be appropriate footwear for an icy parking lot.

**Footwear** should have deep treads and rubber soles with a wide heel surface. Aids such as snow cleats, shoe chains, crampons and ice grips, which go over the shoe, should be provided to all employees to protect them on their trek across the frozen parking lot and other icy surfaces during the workday.

### Creating Awareness and Training Employees

Employers should develop basic safety policies for walking on potentially hazardous surfaces, both indoors and outdoors, followed with an appropriate level of training. As with any other hazardous condition, training should outline the basics of slip and fall prevention, with greater detail given for areas where there is a distinct hazard such as wet indoor walking surfaces and outdoor icy conditions.

### Suggested Practices

- Develop policies that:
  - Restrict employees from areas that are hazardous without the appropriate slip resistant footwear.
  - Prohibit inappropriate footwear on outdoor icy surfaces and provide appropriate footwear to be worn inside on the job.
  - Prohibit use of cell phones or other devices that can be distracting while walking.
  - Prohibit running on any walking surface.
  - Provide and require the use of ice traction aids for snow and ice.
- Provide training based on the policies developed.
- Train employees on proper walking methods for ice and snow-covered surfaces, particularly those associated with parking lots and sidewalks used when arriving and leaving work.
- Post signage to provide hazard awareness such as those that turn blue and flash when surface temperatures are at or below freezing. Place them at the beginning of steps, sidewalks and various points in the parking lot. Signage should face both directions for walkers exiting the building onto walkways and for those leaving cars to enter the building. See Figure 1.



Figure 1

### Keys to Walking on Slippery Surfaces

The majority of work-related slips and falls occur in the parking lot and entrance walking areas. Make employees aware of slip and fall hazards and controls, starting with proper footwear. Employees should wear weather-appropriate footwear when getting out of their cars and change into work or office shoes once inside the building.

### Exiting the Vehicle

A fall can easily occur while exiting a vehicle. The lead/plant foot slips out on the ice as pressure is applied to stand up or step down from taller vehicles. These missteps can result in striking one's head on the vehicle, knee strains and shoulder injuries from trying to catch the fall by grabbing the vehicle as they are going down. Below are a few steps employees can take to help mitigate these slips and the resulting injuries:

1. Do not pick up objects while in the process of leaving the vehicle. Only get objects after safely exiting and have both feet balanced on the ground and stabilized by having one hand on the vehicle.
2. Firmly place the lead foot on the ground before doing anything else.
3. Use three points of contact, either two hands on the vehicle and one foot on the ground or two feet on the ground and one hand on the vehicle.
4. Slowly transfer weight over the top of the planted foot while exiting the vehicle.
5. Once out and balanced, place one hand on the vehicle and retrieve items from inside.

### Walking on Ice

1. Black ice and frost may not be visible. Always anticipate it's there when beginning to walk. Look ahead and take the safest path to or from the building.
2. Identify and use walkways that may be designated or highly treated for ice buildup and traction.
3. Do not take shortcuts through snow piles.
4. Do not walk with hands in pockets.
5. If carrying items, limit them to those small in size. Carrying any item, including a brief case or purse can significantly reduce the ability to maintain balance. It is best to use a backpack so weight is distributed evenly at the body's center of gravity – and leave arms free for balancing.
6. Point your feet slightly outward. The longer the stride, the more likely there will be a loss of traction. See Figures 2 & 3. Take short steps to keep weight centered over feet. One method is to do the "penguin walk." See Figures 4 & 5.

7. Do not make any sudden accelerations or stops.
8. Focus on the walking path and where the next step will be.
9. Avoid melting ice, if possible. Moisture on ice is very slippery
10. Step vertically onto and off curbs, but do not use the lead foot to do so.
11. Avoid walking up or down slopes. Only use steps with handrails, if possible. If ramps cannot be avoided, be sure to use the handrails.
12. At the building entrance, use scraper mats to remove slush or mud from shoes. Step inside and use wiper mats to absorb moisture.
13. If using traction aids over shoes, remove them before walking further into the building.
14. Be alert for water on hard surface floors.



Figure 2. Normal Stride



Figure 3. Closer and more cautious steps when slippery



Figure 4. "Penguin steps" – short stride with feet slightly angled outward when on ice and snow.



Figure 5

### Walking Up or Down Steps in Icy or Wet Weather

- Do not ascend or descend while using a cell phone or texting.
- Always use the handrails to maintain balance.
- Step down slowly, one step at a time, without an "overreaching" or long strides.<sup>1</sup>

### Absorbing a Fall

No one wants to fall, but sometimes it happens. When it does, the most important thing for a walker to protect is their head. Traumatic brain injuries can be life changing or fatal.<sup>2</sup>

#### If the fall is forward or to the side:

1. Dip knees to get lower to the ground.
2. Tuck arms into the body and roll in the direction of the fall, preferably to the side to reduce the blunt impact.
3. Protect head by using arms as a shield.
4. Do not try to brace the fall by putting the arm straight down. This can result in severe fracture or strain.

#### If the fall is backward:

1. If a fall begins, tuck chin inward toward the chest.
2. Try to get a hand behind the head to protect it from striking the ground.
3. Try to move into a sitting position instead of hitting the ground with the flat of the back or head.

<sup>1</sup> [https://ehs.unl.edu/lis\\_2018-11-08.pdf](https://ehs.unl.edu/lis_2018-11-08.pdf)

<sup>2</sup> <https://mercyhealthsystem.org/winter-safety-tips-ice-snow-mean-take-slow/>

Learn more about [managing slip and fall risks](https://cna.com/riskcontrol) at [cna.com/riskcontrol](https://cna.com/riskcontrol) (US) or [cnacanada.ca](https://cnacanada.ca) (Canada).