

Slip and Fall Prevention on Snow and Ice

There are many ways to deal with snow and ice, from plowing and shoveling to scraping and using ice-melting compounds. This reference list some of the best practices to help reduce slips, trips, and falls, when working in cold weather.

General

- Plan ahead. Employers should clear walking surfaces of snow and ice, and spread de-icer, as quickly as possible after a winter storm.
- Wear proper footwear when walking on snow or ice, because it is especially treacherous. A pair of insulated and water resistant boots with good rubber treads is a must for walking and working in the winter.
- Keep a pair of rubber over-shoes with good treads which fit over your street shoes is a good idea during the winter months.
- Take short steps and walk at a slower pace so you can react quickly to a change in traction, when walking on an icy or snow-covered walkway.
- Walk in designated walkways as much as possible, scanning the travel path in front of you. Avoid shortcuts through landscaping, over snow piles and areas where snow and ice removal has not been completed.
- When carrying materials consider the amount and weight of items being carried, as they can shift your balance and cause you to fall. Use a cart to pull equipment and materials, as this will lower your center of gravity. Try to avoid carrying items on steps and handrails; if possible, use a carrying case with a shoulder strap and maintain contact with handrails as you ascend or descend steps.
- Remove snow and water from footwear prior to entering buildings to prevent creating wet slippery conditions indoors.
- When exiting your vehicle, remember that black ice under a light snow can be very slippery. If you are in a car or light truck, open the door and swivel your legs to stand up on both of them at the same time for more balance. Hang onto the door for stability until the surface around the vehicle can be accessed. If exiting a large truck, maintain three points-of-contact as you descend from the truck. Face the truck, using the hand holds and steps, taking extra time to prevent a fall.

Parking and Sidewalk Areas

- Plow, shovel and use de-icing, salting or ice melting compounds to remove ice and snow.
- Pre-apply de-icing compounds before a storm, followed by snow/ice removal during and after the storm. Use plenty of de-icing materials, as using "barely enough" will leave patches of ice.

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- Check the surface regularly. For large parking and side walk areas, this can be time-consuming, but will result in safer walking conditions.
- Aim for evaporation. If the water can drain (e.g., drains aren't blocked) and there is full sun or even reasonable wind, the water (even ice) will evaporate. A dry pavement is a clear indication there is no ice.
- Use a friction additive. Sand is the most popular because it's cheap. Use a lot of it. Make certain that anyone walking on the surface has a lot of traction. You can clean up the mess once the bad weather is over.
- Check and treat surfaces every morning, especially around snow piles where melting may have created new problem areas. Reevaluate during the day and re-treat as needed.
- Remember that a clean-looking surface is only "safe" if it is dry. A wet surface can contain ice and also can turn to ice in the shade or overnight.
- Hold facility managers, custodians, grounds maintenance staff and contracted snow removal personnel responsible for snow and ice removal.
- Train those responsible in procedures for safely maintaining walkway surfaces, including the location of equipment and supplies.

**Above items sourced from: Technology News, August 1995, Iowa Transportation Center, Iowa State University.*

Salting and Ice Melt Compounds

There are many different ice-melt compounds available from traditional rock salt (sodium chloride) to ice-melt pellets (calcium chloride). It's important that an organization properly assess the needs for application of ice-melt compounds. Ice-melt compounds are only effective down to specific temperature limits that vary by compound. Know these temperatures, (referred to as eutectic temps), and monitor them to ensure effective use of the ice-melt compound. Consider the areas to be covered, access to traffic and sunlight, which improve the effectiveness of ice-melt compounds, methods for treating needed areas and cost.

Periodically inspect areas where ice-melt compound has been spread - has the melting action of the compound been reduced as the solution concentration has changed? Should more compound be spread to increase the solution concentration?

Also keep in mind that each bag of salt or ice melt compound can weigh up to 50 pounds. These bags are usually made of plastics, they are hard to handle due to material shifting inside. Be sure to practice safe lifting techniques when handling any bag of salt or ice melt. Follow the manufactures guidelines for safety precautions and spreading the material.

This Tribal First Risk Control Consulting fact sheet is not intended to be exhaustive. The discussion and best practices suggested herein should not be regarded as legal advice. Readers should pursue legal counsel or contact their insurance providers to gain more exhaustive advice. For more information on this topic, please contact Tribal First Risk Control Consulting at (888) 737-4752 or riskcontrol@tribalfirst.com.