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FEET DON'T FAIL ME NOW:

AVOIDING JOB SITE SLIPS AND FALLS ON ICE

AN ERGODYNE WHITE PAPER

FEET DON'T FAIL ME NOW: AVOIDING JOB SITE SLIPS AND FALLS ON ICE

If more than a quarter century of America's Funniest Home Videos has taught us anything, it's that people fall (a lot) and other people find those falls hilarious. And if the only injury that results is a bruised ego, they can be. But considering slips, trips and falls are the second most common cause of accidental deaths in the U.S. every year (behind only traffic accidents), those accidents can also be no laughing matter.

The issue is not unique to the U.S.—in Canada, over 42,000 workers are injured annually in fall accidents. This number represents nearly one out of every five of the "time-loss injuries" that were accepted by Canadian workers' compensation boards or commissions.

The cost of these injuries can be steep. It is estimated that of 3.8 million disabling injuries per year, 15 percent are caused by slips, trips or falls. These account for 12 to 15 percent of all Workers' Compensation costs, with the average disabling claim costing a hefty $28,000.

// LIQUID LIBERATION

Keeping floors and other walking areas dry, clean and free of debris or other storage materials is the first step in the fight against slips, trips and falls. Conscientious slip prevention should focus on how walking surfaces and footwear interact. At indoor jobsites, the selection of flooring, waxes and maintenance procedures plays a key role. Prompt cleanup of contaminants such as oil, spilled water or other potential liquid lubricants is essential.

Outdoor surfaces can be more difficult to control due to changing environmental conditions. But the real challenge comes when employees travel as part of their work, which takes them away from controlled environments and subjects them to variable conditions.

The state of Maine found that "... there were six times as many injuries from snow and ice-related slips and falls as there were involving falls from ladders or falls from buildings and other structures and that there were four times as many ice/snow injuries as there were from falls off vehicles or trailers."

// BEST FOOT FORWARD

If you can't control the walking surface, or have already done what you can, footwear is the next "step."

Employees should start by wearing sensible shoes for the expected environment. They should avoid shoes with smooth soles, pointed heels, slip-on designs or other styles that prioritize appearance over support. Where dress shoes are required, other footwear may be needed getting there. Worn or damaged footwear should be repaired or replaced.

This risk applies to almost all employees, including those who normally work in offices, as well as those who travel for service, delivery, sales or other activities (even commuting). States in the Midwest, Mid-Atlantic and Northeast in particular are commonly at risk for snowstorms, hail, ice storms and the thin, hard-to-see layer of 'black ice' that forms on ramps, steps, roadways, etc. But ice and snow affect the entire country—at last check, all 50 states have reports of snow and ice on an annual basis, and those states that least expect a snow or ice event are often the most ill-prepared (and at risk). Even the ordinary act of getting in and out of vehicles can pose a risk, unless the occupant is prepared. Poor lighting, or glare, can hide risks as the sun goes down and temperatures drop.

// SOLE ASYLUM

Even deeply lugged soles—which work great in mud, snow, gravel, etc.—may be inadequate for ice. Wearing some type of personal ice traction device may be a better option than scattering rock salt or kitty litter in front of you as you walk. Occupational use of studded footwear has been accepted for decades. For example, traditional lumberjacks wear 'caulked' boots with spiked soles to prevent slipping and mountaineers/ice climbers wear metal 'crampons' strapped to their boots.

While appropriate for select occupations in certain climates, cleated footwear may not always be the best option for periodic or intermittent use, or if there are unexpected weather changes. In those cases, some type of easy to put on and easy to remove traction accessory or spikeless traction device might be a better choice. In fact, an anti-slip device should be as standard an accessory as a wool cap or mittens in the winter and sunscreen or bug spray in the summer.

// CHOOSE WISELY

Ice traction devices should be easy to put on and take off, and convenient to keep with you. Devices with complex straps or buckles that might freeze may not be the wisest choice. They must also be compatible with the specific shoes with which they will be worn; try them on before setting out in a blizzard to ensure they work with the style and size of the intended shoes or boots.

The right style of traction device will vary with intended use. Steel spikes make sense for deep snow and off-pavement use, while shorter studs are more appropriate for sidewalks and parking lots. Different styles may fit casual shoes better than work boots. New spikeless devices provide an alternative to traditional cleats. Depending on the tread technology, they can be a fitting choice for workers needing non-conductive footwear or those who frequently transition from indoor to outdoor environments.

Ice traction devices with carbon steel studs can provide solid traction on ice and snow-covered surfaces. Heat treating the carbon steel hardens the compound, making it even more durable on rough terrain.

Another increasingly popular style of ice traction device is dotted with tungsten carbide studs on the bottom. Made from a durable, exceptionally hard compound, tungsten carbide studs wear up to 100 times longer than steel and can be made thinner than heat-treated carbon steel, allowing for better penetration and sharper grip on ice and snow.

At the end of the day, however, you can't go wrong with either heat-treated carbon steel or tungsten carbide, since both materials are durable and provide steady traction on ice and snow. Studs or spikes should generally provide traction at both the heel and mid-foot areas where foot contact is concentrated.

In some cases, special designs should be considered. For example, "heel-only" traction devices may be preferred by workers who regularly climb ladders, or who operate pedals in vehicles or equipment that studs or spikes across the middle of the foot could be uncomfortable or interfere with. These workers may also benefit from spikeless traction devices that are made from non-conductive, non-sparking materials. For traction on slick surfaces in both indoor and outdoor environments, look for spikeless devices with treads designed specifically to provide grip without damaging surfaces.

Of course, quality is important. Work-grade durability should be expected for occupational use. While versions of anti-slip devices have been available for generations, designs and materials have improved. Modern thermoplastic elastomers (TPE) are both durable and tested for cold weather use: snapping like a cheap rubber band would not be appreciated on a bitterly cold day. Traction studs should be hard enough to dig into ice, but not so hard that they become brittle and chip or shatter on pavement. Replaceable studs extend the life of traction devices.

// LIQUID LIBERATION

Some companies provide ice traction devices as standard issue to delivery drivers, route salespeople, etc. as part of their loss control efforts. Others identify suitable devices and make them easy to obtain by promoting them to employees as part of a group buy or with purchase subsidies as part of a 24/7 safety program. An easy option is to include them in an established safety footwear program covered by annual stipends or allowances.

Whatever the approach, personal ice traction devices help employees put their best foot forward and proceed confidently and safely—sorry, America's Funniest Home Videos.

// RESOURCES

1. Slip And Fall Prevention - Workers Compensation Fund
www.wcf.com/slip-and-fall-prevention

2. Prevention of Slips, Trips and Falls - Canadian Centre for Occupational Health and Safety
www.ccohs.ca/oshanswers/safety_haz/falls.html

MAKE THE WORKPLACE A BETTERPLACE.™

THIS DOESN'T HAVE TO BE THE END OF THE ROAD, DEAR FRIEND.

Now that you've read our white paper on slips, trips and falls in the workplace—and how much using proper footwear accessories can help—check out our TREX® Ice Traction Devices. Take your pick and get ready to put your best foot forward this winter.

MORE QUESTIONS?

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