

FACT SHEET

Preventing Work-related Slips, Trips and Falls

Work-related slips, trips and falls are largely preventable. It starts with a simple reminder: Pay attention.

Exposure Risk

Slips, trips and falls are responsible for the majority of general industry accidents and a leading cause of workers' compensation claims. Table 1 features related incident data on slips, trips and falls in private industry and public entities.

Table 1: Event or exposure leading to injury or illness (incident rate¹), U.S. Bureau of Labor Statistics²

Total workforce	Falls to lower level	Falls to same level	Slips/trips without fall
1,162,210 full-time employees	5.4	17.4	4.4

1. Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers calculated as: $(N/EH) \times 20,000,000$ where:

N=number of injuries and illnesses

EH=total hours worked by all employees during the calendar year

2. www.bls.gov/news.release/osh2.nro.htm (most recent data 2013)

The Liberty Mutual Research Institute for Safety publishes an annual *Workplace Safety Index* (www.libertymutualgroup.com) of the nation's top-10 most costly disabling injuries

based on workers' compensation claims data. According to the 2014 index, falls on the same level were the second most costly injury, preceded only by overexertion caused by outside sources. With direct costs of \$9.19 billion, same-level falls accounted for 15.4 percent of the nation's total injury burden, while falls to a lower level ranked fourth at \$5.12 billion and 8.6 percent.



Causes of slips, trips and falls

In colder climates, slips and falls on snow and ice are a leading cause of injuries, with the majority of incidents occurring as employees come and go from work.

There also are many year-round conditions that create slip, trip and fall hazards. They include:

- Dry product spills such as dusts, powders, granules and small metal parts
- Highly polished or freshly waxed floors
- Uneven or sloped surfaces
- Transitions from one surface to another (e.g., outdoors to indoors, carpet to vinyl, grid to concrete)
- Unanchored rugs or mats, loose floorboards or steps, missing tiles

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- Gravel, grass, leaves, pine needles and other slippery natural materials
- Incorrect use of personal protective gear and fall prevention equipment
- Poor housekeeping such as clutter, obstacles in work areas, open cabinets and desk drawers
- Inadequate or no cautionary signage
- Dim lighting, glare, shadows or misty conditions
- Individual physical factors such as poor eyesight or depth perception; fatigue, dizziness, stress or illness; medication, alcohol and drug effects
- Behavioral factors such as talking on cell phones or eating while walking; hurrying and not paying attention to surroundings; carrying or moving cumbersome or tall objects; taking unsafe shortcuts; being off balance when mounting/dismounting vehicles, equipment, ladders or scaffolding; wearing inappropriate footwear for the conditions or wet, muddy or greasy shoes

Regulations and Standards

Walking and surface hazards are addressed in the Occupational Health and Safety Administration's general industry standard (www.osha.gov/SLTC/walkingworkingsurfaces/standards.html) contained in 29 CFR 1910, Subpart D. Similar regulations apply specifically to construction, shipyards, marine terminals and longshoring. Fall protection standards and policies for non-construction work are contained in 29 CFR 1910 (www.osha.gov/SLTC/fallprotection/standards.html). Additional construction-related standards are contained in 29 CFR 1926 and its subparts.

OSHA has proposed revisions to its standard on Walking Working Surfaces and Personal Fall

Protection Systems (Slip, Trip and Fall Prevention) in an effort to reflect more current technology. However, adoption of a revised rule has remained elusive over the years.

The [American National Standards Institute](http://www.nsis.org) (ANSI) promotes voluntary safety standards viewed by many as best industry practices. The ANSI Z359 Fall Protection Code covers equipment standards (e.g., personal fall arrest systems, anchorage devices, rescue equipment, self-retracting lifelines), fall hazard identification, personnel training and requirements for third-party testing.

Prevention



It's important for all workers to be observant. When an indoor or outdoor slip, trip or fall hazard is apparent, employees should be empowered to take immediate corrective action such as strategic placement of warning signs or caution tape and cleaning up spills that do not contain potentially hazardous materials. If immediate action is not feasible, the hazard should be reported to designated workplace health and safety personnel. Consistent enforcement of procedures for handling wet and dry materials and ongoing equipment maintenance also help reduce injury risk.

When walking, employees should:

- Wear non-slip shoes or work boots
- Proceed at a reasonable pace and avoid distractions
- Use handrails when going up or down stairs and not skip steps
- Use a flashlight in dimly lit or dark areas

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- Use extra caution when walking from one surface to another or when the walking surface is uneven, wet or icy
- Hold small loads close to their body and not carry anything that is too large or bulky to see over or around

When working at heights and under other potentially dangerous environmental conditions, employees are required to follow all guidelines for proper use of personal protective gear and fall arrest systems.

Good housekeeping practices include:

- Stowing or covering electrical cords, cables, hoses and other trip hazards
- Repairing damaged ladders or steps and uneven walking surfaces
- Ensuring floors are clean, dry and not too slippery
- Closing all drawers and doors that protrude into walkways and aisles
- Installing skid-resistant materials on ramps and other sloped surfaces
- Cleaning up spills following strategic placement of caution signs
- Using moisture-absorbent, slide-proof floor mats, especially at entrances/exits
- Installing adequate lighting in walkways, staircases, ramps, hallways and other work areas

Finally, personal fitness goes a long way toward reducing the likelihood of injury in the event of a slip, trip or fall. Activities that improve strength, balance, coordination and flexibility are recommended.

Cold climate safety tips

Ice and snow are often blamed for slip, trip and fall injuries. Exposure to freezing temperatures and immersion in cold water create other potential on-the-job hazards.

For workers:

1. Wear several layers of loose clothing to provide better insulation.
2. Protect the ears, face, hands and feet; boots should be waterproof and insulated.
3. Carry extra socks, gloves, hats, jacket, blankets, a change of clothes and a thermos of hot liquid.
4. Include a thermometer and chemical hot packs in your first aid kit.
5. Avoid touching cold metal surfaces with bare skin.
6. Monitor your physical condition and that of your co-workers.

Signs and symptoms of cold stress and hypothermia include shivering, fatigue, disorientation, dilated pupils and slow breathing. Signs and symptoms of frostbite include a prickling sensation, numbness, discolored, hard or waxy-looking skin, and clumsiness.

In the event of exposure:

- Alert a supervisor and request medical assistance.
- Move the victim into a warm room or shelter and remove wet clothing.
- Warm the center of the body first; keep the victim dry and wrapped in a warm blanket, including the head and neck.
- Warm beverages may help raise body temperature – do not give alcoholic beverages.

Refer to the National Institute for Occupational Safety and Health's cold stress website:

www.cdc.gov/niosh/topics/coldstress/default.html