

In these tough economic times, employers (including municipalities) might be tempted to cut safety processes in order to reduce costs, but the cost of workplace injuries and illnesses can be staggering. OSHA estimates that employers pay almost \$1 billion per week for direct workers' compensation costs including workers' compensation payments, medical expenses and legal services. That figure doesn't include other costs such as accident investigation, training for replacement employees or lost productivity. Read the following article from Risk Management Consultant Matt Ponticelli to learn more about how to protect your employees from the most common workplace injuries.

Slips, Trips, and Falls

By Matt Ponticelli, Risk Management Consultant

An employer is required to assess the workplace to determine if the walking/working surfaces that employees work on are strong enough and structurally sound to safely support them as they work. No one is permitted to work on those surfaces until it has been determined that the surfaces are safe. Once an employer determines that the surface is safe, they must select a method of fall protection if a fall hazard is present.

OSHA standards for walking working surfaces apply to all permanent places of employment, except where domestic, mining, or agricultural work only is performed.

- 1910.22(a)(1) — walking working surfaces — housekeeping issues
- 1910.23(d)(1) — guarding floor and wall openings — stairway railings and guards
- 1910.22(a)(2) — walking-working surfaces — housekeeping

Slips, trips and falls cause 10 percent of all accidental deaths and are fourth, following motor vehicles, homicides, and being struck by objects or equipment as a cause of fatalities.

What makes falling so hazardous?

When you fall, generally you don't think about what is happening other than the obvious: falling off of something, falling down on the ground, or not quite falling, but losing your balance and slipping or tripping. Generally, a fall is the result of a progression of events.



Fall characteristics

Falls are classified into four general categories: slips, trips, and falls on stairs and falls from elevation. Slips and trips occur on the same level. Stair and elevated falls occur from one level to another.

Slips and trips

Many workplace hazards lead to nonfatal fall injuries on the same level — a slip or trip. Some hazardous factors that may be common to many workplaces and contribute to a slip or trip are water on office floors, grease on shop floors, ice and snow on parking lots, uneven walking surfaces, cluttered floors, and tripping over one's own feet.

Other factors that must be present to cause a slip are the supporting surface (floor, walkway, working surface), the opposing surface (footwear or footgear), the individual (gait or locomotion characteristics, attentiveness, agility, disability) and the work task (lifting, reaching, moving and object).

The factors that cause a trip are a foot contacting an object or obstruction (uneven rugs, cords, blocked aisles) or too much friction between the foot and the walking surface.

Falls on stairs

Falls on stairs occur most often when someone is traveling down stairs without holding onto a handrail. The stair surface (design, installation, improper height and width of riser), stair handrails (improper grip configuration), and the individual (physical condition, age, locomotion/gait characteristics) all play a role in falls involving stairs.

Falls from elevation

Once a slip or trip is in progress, the degree of your loss of balance determines whether the result is a fall or remains a slip or trip. When this loss of balance is total a fall results. When the fall occurs on an elevated surface, the consequence of the fall increases in severity proportionately to the height of the elevation. Our first instinct is to grab on to something to prevent the fall. More often than not, that something is not available. A common misconception about the height of the working surface leads to potentially dangerous conditions. Guardrails, handrails or hand-lines are often thought of as unnecessary at “minor” elevations. A backward fall from four feet can be fatal because the head will most likely hit the arresting surface (ground) first.

Tips to prevent fall hazards:

Install slip—resistant flooring material such as textured, serrated, or punched surfaces and steel grating. These types of floor surfaces are good for wet, oily, or dirty operations. Apply anti-slip solutions that contain gritty compounds on concrete, wood, and metal floors. These products are especially useful for aisles, walkways, ramps, and loading docks.

- Provide absorbents to clean up spills where oily materials or corrosive liquids are accidentally spilled.
- Install guardrail systems, handrails, ladder cages, or barriers surrounding or nearly surrounding the climbing area of ladders.
- Provide personal fall protection (such as body harnesses) when guardrail systems cannot eliminate the risk of falling.
- Use hole covers to guard floor openings of at least 2 inches in size.
- Place barriers around unprotected sides and edges. Install safety net systems to catch employees who fall.
- Provide slip-resistant mats at entrances, around equipment, and in aisles and bathrooms where contaminants like spills, rainwater, and dirt are probable.
- Pay (fully or in part) for slip-resistant footwear.

For more information you can refer to an article from University of Florida linked through the Federal Center of Disease Control (CDC):

<http://www.cdc.gov/nasd/docs/d000001-d000100/d000006/d000006.html>

You can also visit the OSHA website for additional information the Costs of Workplace Injuries and Illnesses at: <http://www.osha.gov/dcsp/products/topics/businesscase/costs.html>