

Preventing Slips, Trips, and Falls

Slip, trip, or fall (STF) accidents are often the most frequent and most severe injuries on a jobsite. They also have the greatest overall impact on workplace efficiency and are the leading cause of worker compensation losses in construction.

STF Accidents

While falls from different levels result in more severe injuries, STF on the same levels are the most common cause of injury/loss on the jobsite. They are generally high frequency claims and often result in broken bones, soft tissue strains, or struck by, contusion type injuries.

Many STF injuries occur due to dangerous conditions on the jobsite. Depending on the roles and responsibilities, the property owner, general contractor and subcontractors have a duty of reasonable care to spot this dangerous and unsafe conditions and make the jobsite safer.

Inadequate housekeeping, maintenance and site inspection procedures are major contributing factors to most STF accidents. Fall exposures such as environmental, walking surfaces, stairways, ramps, floor openings, sidewalks, overhangs, lighting, machinery, equipment, etc. need to be controlled.

Common Risk Factors

Understanding the causes and challenges of things that contribute to STF accidents, will help you address losses and prevent future accidents. The risk factors include:

- Condition of walking surface: Construction activities mean an ever-changing worksite. Everything from uneven surfaces and potholes, to temporary bridges and muddy soil conditions can pose a threat.
- Impact of environmental conditions: Water from rain and other spills can result in slippery conditions. Winter conditions like snow and ice, as well as soft soil conditions and truck traffic, can add to the difficulties.
- Obstructions: A construction site has a number of obstructions that increase the risk of tripping accidents. Many are temporary, like debris, materials, tools, cables, hoses and power cords.

- Site coordination issues: With multiple contractors, coordination is key to ensure proper access and egress routes. Also, planning ahead can ensure the availability of ladders, scaffolding and walkways.
- People issues: As workers carry heavy loads around, it can affect their balance. Improper footwear or muddy shoes can also have an impact. Balance could also be affected by an aging workforce or pain medications.

Strategies for Managing STF losses

When creating an effective strategy for managing STF losses, you need to consider the ever-changing dynamic nature of the jobsite. That includes pre-planning, along with daily inspections and an audit program to identify potential hazards, and make the necessary corrections.

Preplan:

- Establish safe access and egress routes
- Mark routes clearly and keep workers informed of changes
- Designate individuals to inspect and maintain access routes
- Establish dedicated material lay down areas, debris and snow removal plans

Develop formal written maintenance, inspection and training procedures including but not limited to:

- Housekeeping (e.g. spill cleanup, daily debris/scrap removal)
- Equipment maintenance
- Stairs/ramps and handrails
- Fencing
- Walking surfaces, floor and wall openings
- Lighting
- Visitor PPE
- Signage
- Routine inspection of ladders

For more information and additional risk management and prevention tools, visit: fwcruminsurance.com

Exposure Control

Raising awareness can help reduce STF losses on a jobsite. Here is a starting point to help you develop your own mitigation controls. You should consider and anticipate a variety of exposures over the course of the project.

Elevation changes in walking/working surfaces

- Design walking/working surfaces to be level where possible
- Identify uneven areas in walking/working surfaces with high-visibility paint, signage, etc.
- Discuss uneven surfaces in pre-work safety briefings with crews
- Smooth transitions through use of inclined wedges where possible
- Tape joints of all temporary floor coverings
- Repair damaged walking/working surfaces quickly
- Use an employee reporting process to help identify problem areas

Water on floors – frequent issue prior to dry-in

- Barricade affected areas where possible
- Place ‘squeegees’ near known problem areas with designated person to remove water after a rainfall
- Assign work in alternate areas until the water can be removed
- Be prepared for spill remediation, especially after dry-in

Lighting – degrades as walls are put in place

- Inspect for issues before assigning work
- Use portable stand lights
- Use high intensity temporary lighting in larger areas
- Daily, continuous maintenance of temporary lighting
- Establish a process for any subcontractor to request help with lighting – proactively
- Ensure electrical subcontractor understands the importance of their role in STF prevention

Debris on floor – staged construction material, scrap and lunch trash, etc.

- Require frequent trash/scrap removal
- Include subcontractor housekeeping requirements in the contract and be sure to enforce
- Designate trash/scrap collection points clear of walkways and work areas.
- Do not stage piping or other rolling material in walkways

Cords and hoses in walkways – trip hazards

- Run overhead if possible – use 2”x4” ‘trees’ or archways when needed
- Place to the side of the hall and tape down
- Avoid running through stairways and ladders

Scaffolding

- Elevation changes on stairs and stairwell platforms critical – identify and mark if non-repairable
- Maintain dust/dirt/debris free work platforms
- Ensure handrails are available in stairwells and changes of elevation requiring a step or more
- Provide boot cleaning stations at access points to scaffolding where mud is an issue
- Ensure adequate lighting, especially at elevation change areas, stairwells and access points
- Ensure workers are trained to recognize STF hazards

Ladders

- Use the correct size, type and capacity ladder for the intended work
- Inspect ladders regularly to ensure they are in good physical condition
- Ensure ladders are set up properly and anchored to prevent movement
- Keep access points clear of scrap, debris, hoses, cords, etc.
- Keep rungs clear of all tools, cords, etc.
- Train workers to clean boots prior to ladder use, maintain 3-point contact and keep belt buckle between the rails

Miscellaneous factors

- Employee training to recognize, avoid and report STF exposures on the job site is critical
- Employee training should also include a lesson in how to walk on wet surfaces to minimize the risk of slipping
- Management training to stress the importance and methods of exposure identification and control is critical to success
- Executive management must set and enforce the STF prevention requirements
- STF prevention must be embodied within a written plan, policy and/or procedure that is available for line management review
- STF prevention should be part of every workers orientation to the project site
- Boots that have soles with adequate traction should be required

When it comes to finding a ‘magic bullet’ to produce a gain in productivity, improve the bottom line, and make the company more profitable, you may be virtually ‘tripping’ over a major opportunity to do so.

Raising awareness and educating the workforce on controlling STF hazards helps to promote a safe and productive jobsite. Develop a plan for controlling slip, trip and fall exposures, implement the plan, work through the bumps and count the success on your bottom line.

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