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Preventing Slips, Trips and Falls


For Client Care Facilities



STF Session Objectives


Learn to:

- Recognize your organization's responsibility to provide a safe premises for your employees and clients
- Recognize STFs as a serious safety issue
- Identify STF hazards on your premises
- Eliminate STF hazards using accepted best practices



Polling Question


- True or False
 - Slip, trip and fall injuries are rare and can't be prevented
 - STFs can result in serious life changing injuries
 - If you see something on the floor you shouldn't assume that someone else will take care of it.



STF Injury Statistics


- Falls are one of the leading causes of unintentional injuries in the United States, accounting for approximately 8.9 million visits to an emergency care facility annually*
- STF's accounted for over 26,000 deaths in 2010*
- 25% of all employee injuries are STFs
- Average cost for a STF for an employee is over \$20,000


*NSC Injury Facts 2011



Costs to Organizations



- Insured costs
 - Medical and indemnity payments
 - Defense costs - litigation
- Uninsured costs
 - Loss of productive employees
 - Costs to retrain replacements
 - Interruption of operations due to accident
 - Loss of reputation/clients/donors
 - Increased insurance premiums






Definitions


Slip – occurs when there is not enough traction (friction) between the shoe and the walking surface



Definitions



Trip – when your foot comes in contact unexpectedly with an object causing you to lose your balance





Definition

Fall – when you slip or trip and are unable to regain you balance




Legal Liabilities

- OSHA – requires safe working conditions
- Premises liability
- Negligence?
 - Dangerous condition caused the injury
 - Condition was caused by the owner/lessee
 - Owner/lessee knew the condition existed and failed to correct it



Top 8 Hazards


1. Floor Contaminants
2. Poor Drainage
3. Defective Walking Surfaces
4. Adverse Weather Conditions
5. Inadequate Lighting
6. Poorly designed and maintained Stairs and Handrails
7. Improperly Used Stepstools and Ladders
8. Poor Housekeeping



Floor Contaminants


Contaminants on the floor are the leading cause of STF incidents





Common Hazard-Prone Areas

- Food services areas
- Production or storage areas
- Drinking fountains/water coolers
- Building entrances
- Outdoor work areas



Prevention Strategies


Design facilities to eliminate floor contaminants

- Establish work practices that keep contaminants off the floor
- ID and eliminate sources of spills and leaks
- Redirect pipes or drains away from walkways
- Move or contain operations that produce the floor contaminants




Prevention Strategies

Establish a written housekeeping program



Polling Question....


- Do you have a housekeeping program that addresses floor maintenance for all the types of floors you have?



Housekeeping/Maintenance

Effective Housekeeping Program must:


- **Highlight** spill clean-up as a top priority
- **Define** the responsibilities of all employees
- **Require** immediate clean-up and site securement
- **Establish** approved cleaning materials and methods
- **Describe** proper usage and placement of wet floor signs, barriers and employee monitors




Prevention Strategies

Keep floors clean and dry


- Spills – quick clean-up
 - ✓ Easy access to clean-up materials
- Inspect problem areas regularly




Spill Response and Clean-up Materials

Wall-mounted spill pads Spill pads by entryway






Wet Floor Signs and Barricades








Prevention Strategies

Use proper floor cleaning procedures


- Use slip resistant floor cleaners
- Follow manufacturer's directions
- Clean floor as needed or on regular schedule



Floor Cleaning – Not as simple as you think!

Common problems that cause slippery floors

- Old finishes not properly stripped
- Too much cleaner
- Inadequate rinsing
- Finishes applied too often (build-up)
- Wrong type of cleaner or finish for type of floor
- Wrong application equipment
- Not enough drying time



Floor Cleaning – Not as simple as you think!

How many types of floors do you have?
Do you know how to clean each of these type floors?

- Wood – finished or painted
- Vinyl tile
- Linoleum
- Terrazzo tile
- Marble
- Ceramic or Quarry Tile
- Brick
- Carpet



Wear slip-resistant shoes

- Require certain employees to wear slip-resistant shoes
 - Food preparation
 - Housekeeping
 - Maintenance





 


Prevent entry into areas that are wet

- Spills
- Floor maintenance
- Leaks



The image shows four yellow caution cones with black text that reads "CAUTION WET FLOOR" and a yellow barrier device with black text that reads "WET FLOOR".



 





The image shows a yellow barrier device in a hallway, blocking off a section of the hallway.

Barrier Device

Barrier devices block off sections that are off limits due to floor maintenance activities.



Barrier chain between warning signs
Preventing entry into hazardous areas



Warning signs
Warning signs and barriers that block access to a room during cleaning



Floor Mats and Runners

- Mats are very useful in preventing STF accidents
- They provide a slip-resistant walking surface and absorb water, dirt, debris, grease and other slippery contaminants from shoes



Common hazard-prone areas where mats can be effective


Building entrances





Common hazard-prone areas where mats can be effective

Food preparation and serving areas



Prevention Strategies Using Mats

- Place by entryways or other areas where water might collect
- Mats should be long enough so that several footsteps will take place on them (8 ft. or longer)
- Slip-resistant backing
- Check condition of mats periodically
- Replace worn mats




Prevention Strategies Using Mats



Keep edges of mats flat




Frayed or worn mats should be replaced




Polling Question

- Do you know how many slip, trip and fall accidents have occurred on your organizations premises?
- Do you know what the causes of the slips, trips and falls were?



Poor Drainage: Pipes and Drains



- Improperly aligned drains and water pipes can cause liquids to spill onto walking surfaces
- Obstructed drains can cause water to back-up onto the floor




Poor Drainage: Pipes and Drains

Common hazard-prone areas



- Water outlet drains and pipes
- Downspouts






Prevention Strategies - Pipes and Drains

- Inspect pipes to ensure proper alignment with the drain
- Remove drain debris and maintain drains to ensure free-flowing conditions
- Redirect downspouts away from walkways, parking lots and other pedestrian traffic areas




Defective Walking Surfaces

Indoor Walking Surface Defects

- Floors and floor finishes should be *slip-resistant*
- Slip-resistance is determined by the floor's friction rating – this rating indicates whether the surface provides sufficient traction


	Floors	Ramps	Entrances
OSHA	0.5 COF	0.5 COF	
ASTM	0.5 COF	0.5 COF	
ADA	0.6 COF	0.8 COF	0.6 COF



Defective Indoor & Outdoor Walking Surfaces

Safe Walking Surfaces


- Level
- Even
- Slip-resistant finish
- No gaps
- No sudden changes in elevation



Defective Indoor & Outdoor Walking Surfaces

Indoor Walking Surface Defects


- **Prevention Strategies**
 - Patch or fill cracks greater than ¼" wide
 - Repair or eliminate sudden changes in elevation
 - Create visual cues for changes in elevation
 - Install proper type of flooring for use
 - Maintain elevator levels



Defective Indoor & Outdoor Walking Surfaces

Outdoor Walking Surface Defects


- Many injuries result from poorly designed or maintained exterior walking surfaces including
 - Sidewalks
 - Parking lots
 - Uneven ground
 - Protruding structures
 - Uncovered holes
- Rocks, leaves, and other debris cause many slip, trip and fall injuries when walking surfaces are not adequately maintained.

Defective Indoor & Outdoor Walking Surfaces

Outdoor Walking Surface Defects

- **Prevention Strategies**
 - Patch or fill cracks in walkways greater than ½" wide
 - Repair or eliminate sudden changes in elevation > ½ " wide
 - Create visual cues – highlight changes in curb or walkway elevation with yellow safety warning paint
 - Highlight concrete wheel stops and speed bumps with yellow safety warning paint (or remove)
 - Remove stones and debris from walking surfaces





Examples of Outdoor Hazards

Sloped pavement should be highlighted with yellow paint



Keep stones and other groundcover off pavement



More Outdoor Hazards

Cracked walkway tiles



Unfilled Pot holes






More Outdoor Hazards

Separation greater than ½"



Change in elevation greater than ½"





Adverse Winter Weather Conditions

Ice and snow can cause employees or clients to slip and fall

Common hazard-prone areas

- Entrances
- Parking garages and lots
- Walkways
- Outdoor stairs






Adverse Winter Weather Conditions

Prevention Strategies

- Promptly remove ice and snow
- Hire contractor to automatically remove snow
- Encourage employees and clients to report icy conditions
- Store de-icing salt close to walkways



Adverse Winter Weather Conditions


Prevention Strategies (continued)

- Provide additional mats in entrances
- Use portable heating mats
- Install snow-melting systems
- Consider slip-resistant footwear (including ice cleats) for employees who work outdoors



Adverse Winter Weather Conditions

Wet leaves need to be regularly removed from outdoor walking surfaces






Inadequate Lighting

- Inadequate lighting impairs vision and reduces one's ability to see slip and fall hazards
- Proper lighting allows employees and clients to see their surroundings and notice unsafe conditions in time to avoid them

Common hazard-prone areas

- Parking structures
- Storage rooms
- Hallways
- Stairwells
- Outdoor walkways
- Basements
- Vacant properties







Inadequate Lighting

Prevention Strategies

- Evaluate current lighting
- All light bulbs should have an appropriate light output
- Install additional light fixtures in poorly lit areas
- Install light fixtures that emit light in all directions





Stairs and Handrails

- Proper construction and maintenance of stairs and handrails can reduce STF hazards
- All stairs /steps must be of quality construction, well-lit and adequately maintained
- All stairs/steps that have 4 or more risers must have a handrail
- Handrails must be the appropriate shape, size and height and must be properly secured

Common hazard-prone areas

- Indoor and outdoor stairs
- Steps inside classrooms or conference rooms
- Elevated or sloping walkways
- Parking structures
- Ramps
- Fire escapes
- One step elevations






Stairs and Handrails

Prevention Strategies

- Create visual cues for nosing
- Check that stair treads and nosing are slip-resistant and extend the whole tread
- Ensure that stairs are kept free of ice, snow, water and other slippery contaminants







Stairs and Handrails

Prevention Strategies

- Check all stairwells for adequate lighting
- Add a handrail at locations that have less than 4 steps
- Inspect and adjust handrails that are outside the height range of 34–38" from the stepping surface
- Repair loose or damaged handrails




Stairs and Handrails

Prevention Strategies



Handrails

- Consistent & uniform height
- Extend the full length of stairs plus 12 inches at top and one tread depth at bottom

Stairs and Handrails

- For stairs 44 or more inches wide, two handrails are recommended
- If 88 or more inches you need another handrail
- For stairs less than 44 inches wide, at least one handrail on the right side descending stairway is required







Stairs and Handrails

Prevention Strategies


All open balconies, decks, atriums or other open-edged features must be protected by a guardrail designed to withstand a force of 200 lbs. in any direction




Stairs and Handrails

Prevention Strategies

- Open stairways should have a two-rail system
- The top rail should be 42 inches high
- A second handrail should be within a height range of 34–38" from the stepping surface





Stepstools and Ladders

- Stepstools and ladders can create a hazardous situation if not used properly
- Step ladder misuse is a common contributor to serious fall related injuries, including many fatalities


Prevention Strategies

- Consider design changes that will eliminate the need for stepstools and ladders:
 - Change material storage practices so the most accessed items are stored within easy reach while standing on the floor
 - Lower work stations, tables, and equipment so they can be easily accessed by your work force, regardless of their height
- For those situations where stepstools and ladders are still needed, use the most stable and secure equipment available




Stepstools and Ladders





Housekeeping Opportunities

- A clean work area is usually a productive and safe work area
- Substantial clutter and debris accumulation can cause STF accidents





Housekeeping Opportunities

Common hazard-prone areas

- Workstations
- Storage and supply areas
- Hallways and walkways
- Shipping and receiving
- Unoccupied building areas






Housekeeping Opportunities

Prevention Strategies


- Establish safe storage and trip prevention guidelines
- Hold employees responsible for following the guidelines
- Routinely inspect all areas for possible STF hazards
- Eliminate power cords that stretch across walkways
- Eliminate power cords by installing new electrical outlets or relocating equipment
- Use retractable cord holders



Housekeeping Opportunities

Prevention Strategies

- Remove/scan old paper files from storage
- Inspect workstations to ensure adequate trash containers
- Add storage capacity via shelving
- Organize storage areas to eliminate clutter
- Use wall-mounted storage hooks, shelves, hose spools, etc.
- Clear walkways, hallways and other employee traffic areas
- Prohibit any storage on stairs, stairway landings and in stairwells



Special Instructions for Client Care Facilities


- Instruct clients to report any hazards that they see in their apartments or buildings
- Consider installing CCTV in common areas
 - Help identify real vs. fabricated accidents
 - Identify close calls (i.e., falls that no one reports)
- Ensure that budgets include adequate funds for proper maintenance
- Properly supervise clients who may slip and fall, or cause others to slip and fall, due to their physical or mental condition



Accident Review

Examine All Employee and Client Slip, Trip, and Fall Injuries:


- Review facility injury reports, supervisory investigations and your insurance carrier's claim reports
- Identify injury causes and trends
- Focus on primary causes such as floor contaminants, inclement weather, spills, debris, exposed power cords, misuse of ladders and stools and defects in walking surfaces



Accident Review

Identify potential contributing factors and underlying causes:

- Insufficient or incorrect equipment, including floor mats, de-icing materials, surface finishing, ladders and stepstools
- Poor spill clean-up response or site protection
- Insufficient inspection and maintenance/repair efforts
- Communication failures in reporting and warning of hazards
- Management and employees not taking initiatives and responsibilities for preventing and eliminating STF hazards
- Delayed snow and ice removal
- Facility design flaws such as narrow walkways, poorly placed or insufficient power outlets, poor lighting and inadequate or poorly located drains and downspouts



Accident Review

- Once these underlying causes are identified, effective STF prevention interventions can be made
- Improve your accident review procedures to identify the underlying causes, if you are not currently collecting and evaluating that information



Conclusion

- When considering the cost of slip, trip, and fall claims in terms of insured and uninsured claims, the best approach is to invest the resources necessary to prevent them from occurring
- Visit our web site at www.everestgroup.com for other loss prevention information
- See our **Loss Control Alert: Preventing Slips, Trips and Falls** – this publication provides many suggestions for preventing slip, trip and fall injuries and claims