



GUIDE TO DEVELOPING AND MAINTAINING AN EFFECTIVE SLIP, TRIP, AND FALL PREVENTION PROGRAM

Information provided by The Zenith.



Implementing an effective Slip, Trip, and Fall (STF) Prevention Program can help reduce employee and customer accidents. An effective slip prevention program doesn't have to be expensive or require a lot of extra time.

Safe work practices can be integrated easily into existing operations. In fact, better results are accomplished when safety is addressed along with productivity and customer satisfaction.

Use this workbook to help develop a STF prevention program to meet the specific requirements of your workplace. Once in place, you'll have an effective tool for controlling fall hazards. As with any program, your organization's ongoing commitment to continually improving and updating your fall prevention program is vital to its success.

Basic Elements of a Slip, Trip, and Fall Prevention Program

The following elements form the basis of an effective STF prevention program. Regardless of your operation's size, you should include each of these elements in your program:

1. Management, Leadership, and Employee Involvement
2. Floor Evaluation, Care Procedures, and Training
Footwear Selection and Use Guidelines
3. Regular Floor Inspections

Additional resources and information can be found in Zenith Solution Center®.

To access **Zenith Solution Center (ZSC)**: Visit **TheZenith.com®** and log in. Once logged in to your account, select **Zenith Solution Center**.

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1. Visit **TheZenith.com**
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1. Management Leadership and Employee Involvement

Management Leadership

Employees take the lead from their employer and company leaders are the most important part of any safety program. Management should be ready to:

- + Provide resources and support to accomplish the task
- + Set the example. If you require slip-resistant footwear be worn, then all members of the management team should wear slip-resistant footwear as well
- + Involve employees in the hazard identification, correction, and control process
- + Recognize and reward good safety performance
- + Enforce floor maintenance procedures and footwear policies
- + Review program results with employees
- + Use Zenith’s Slip, Trip, and Fall Prevention Program Evaluation tool to determine where to target your efforts
- + Train managers/supervisors to be safety coaches

Managers and Supervisors as Safety Coaches

Give your managers and supervisors the tools they need to become safety leaders. Log in to **ZSC** and enter Five Star Leader in the search bar then download the Five Star Leader Guide and **Five Star Workbook** for more information.

Employee Involvement

Your employees are experts at their jobs. To achieve employee buy-in, involve your employees in every step of the process. Take advantage of your employees’ expertise when implementing STF prevention program components, and carefully consider and follow-up with them on their suggestions to improve STF prevention practices.



2. Floor Evaluation, Floor Care, and Employee Training

Improper floor installation and/or poor floor maintenance can increase the risk of accidents. Regardless of floor type, ineffective cleaning and wear can reduce the floor's traction over time.

Floor Evaluation

To reduce the risk of slips and falls, one method is to test the floor's condition. Perform a safety shuffle shoe test by grinding your shoes along the floor's surface in a safe and controlled manner. Simulate stepping down with your heels and toes, pivoting, and applying full surface shoe pressure. Test several floor areas, including intersections and problem slip areas.

Conduct the test while wearing the same type of shoe required for working in that area. Also, make sure your test occurs in normal working conditions when the floor is typically wet, oily, powdery, etc.

You can also get flooring-specific slip resistance data by measuring the coefficient of friction (COF), which is a numerical value that describes the amount of traction between one's shoe and the surface beneath it. It gives an indication of how slippery a floor surface is. Higher COF means the floor has more friction and less risk of slipping. The lower the COF means the floor has lower traction and more potential for slip and fall incidents.

The COF can be measured and tested using a tribometer, commonly known as a slip meter. This is a simple test, conducted by placing a meter on the floor surface, steadily applying a pulling force to the meter until it slides. When the meter moves, a numeric COF is displayed, which simulates the value at which a shoe would slip on the floor. After multiple measurements, a final COF value is averaged and compared to a selected standard.

Static Coefficient of Friction (SCOF) considers what happens at the start of motion, and is the minimum friction (or resistance) required to prevent someone from starting to slip. While the SCOF measures slip resistance at a standstill, Dynamic Coefficient of Friction (DCOF) measures friction (or resistance) values required to prevent someone from falling after they slip and are already in motion. Some professionals claim it is a more reliable representation of a floor's resistance to slipping than a measurement taken without motion.

Zenith recommends maintaining wet SCOF at 0.60 or above; and wet DCOF at 0.42 or above.

If your floor remains slippery (with SCOF or DCOF values below recommended guidelines) after proper cleaning, you may need to hire a professional to treat or replace the floor.

Consult a professional if you see:

- + A persistent, slippery built-up film of floor-cleaning residue
- + Mineral deposit build-up from hard water and worn floor material
- + Normal wear resulting from the floor's age and use that reduces the floor's SCOF and DCOF values



Floor Care Procedures and Training

Many slips, trips, and falls result from improper floor maintenance and cleaning. The procedures below outline floor care, cleaning, and maintenance best practices. Managers and supervisors should enforce these procedures on a daily basis.

A. Inspect Floors

Train staff on how to inspect floors to identify possible hazards such as loose or broken tiles, missing grout, recessed drains, and other physical hazards in walkways. Findings should be documented, hazards should be corrected, and corrective actions should be verified by management.

B. Select an Effective Cleaning Product

Use appropriate cleaning products and procedures for your floor surface. Cleaning agents vary by quality, price, features, and usage directions. Test floor products to ensure the product you select meets your needs. Always follow the manufacturer's instructions for best results.

Keep in mind:

- + Detergents or surfactants help remove water-soluble soils
- + Emulsifiers, soaps, and degreasers dissolve fat-soluble soils. Too little won't be enough to effectively remove grease. Too much may dissolve the grease, but also leave a slippery residue
- + Biological products, such as grease-eating bacteria, remove excessive grease
- + Caustics and acids chemically digest and strip contaminant matter
- + Added formulation features, such as slip-resistant additives, floor shine, sealers, floor drying products, and disinfectants, can help reduce hazards that could lead to slips and falls

C. Select the Right Cleaning Tools

Three primary floor-cleaning tools are: deck brushes, power brush machines, and mops.

Deck brushes are effective at removing grease when used properly, and are less likely than mops to spread grease.

However, deck brushing is physically strenuous, and employees who don't use proper body mechanics may experience back and upper body injuries. Selecting ergonomically designed cleaning tools can help reduce the risk of strains.

Power brush machines are an alternative to manual cleaning methods for safely and effectively scrubbing floors. They also reduce the errors that occur from chemical application, rinsing, and removing excess floor cleaning liquids via wet vacuuming. These machines can be expensive and must be kept in good condition to be effective.

A clean mop is effective in spreading cleaning products, absorbing liquids, gentle washing, and capturing soil. Damp spot mopping, with or without cleaning agents, may also be effective in cleaning or improving trouble areas during peak dirty times and for spills. Floor pads or towels may work as well.

D. Use Clean Tools

Use clean water and clean mops for each new job. A soiled mop spreads floor contaminants rather than removing them. To avoid spreading grease, oils, and soil with a contaminated mop:

- + Use a floor squeegee to spread cleaning solutions with minimal cross contamination
- + Use separate mop bucket compartments for dirty mop wringing, rinsing, and cleaning solution dipping
- + Use dirt screens or chemicals that separate water from dirt and leave cleaner water in the mop bucket
- + Remove dirty mops from service
- + Use separate mops for customer areas and the kitchen area. Color coding or labeling mop handles and buckets can help avoid confusion
- + Clean small sections of floor. Start with less soiled areas and proceed to more soiled areas
- + After mopping, clean and store the equipment, so it's ready to use next time. Hang the mop by its handle to let the loosely packed mop strands drain.



E. Develop a Cleaning Schedule

An effective cleaning schedule will help maintain adequate floor conditions throughout the workday. Post a schedule for employees to check off and follow. For instance, in a restaurant, cleaning should take place:

- + At the start of the first shift or at end of the last shift
- + Right after breakfast service
- + Right after lunch service
- + Right after dinner service
- + Any other time designated by a supervisor or manager



Employee Training

Management needs to ensure employees know how to clean floors effectively. Procedures may vary from the sample cleaning procedures shown below due to the flooring and equipment being used. However, it's important to review a written copy of your cleaning procedures with employees.

When training new employees, provide step-by-step demonstrations of floor cleaning procedures, products, and equipment to be used. Then have the employees demonstrate the procedures back to you. People remember only 30% of what they see, but 90% of what they do. Consider posting a laminated copy of the floor-cleaning procedure with cleaning supplies for quick reference by employees.

In addition, train employees to:

Use clean water and clean mops for each new job. A soiled mop spreads floor contaminants rather than removing them.

To avoid spreading grease, oils, and soil with a contaminated mop:

- + **Use required safety gear** to protect eyes, face, skin, and feet
- + **Read and understand warnings** for chemical handling/ mixing, and know what to do if they get chemicals on their skin or in their eyes
- + **Warn others** to stay clear of the hazard with signs and other communications
- + **Provide safe access** around or through work areas, so others passing by can safely avoid walking on floors that are being cleaned
- + **Apply safe body mechanics** during all floor-cleaning techniques

Sample Floor Care Procedures

Pre-Cleaning Procedures

- + Inspect the floors, report hazardous conditions to management and maintenance staff, and remove hazards (such as trash and debris).
- + Remove excess dirt or greasy spots by wiping, scraping, and/or sweeping.
- + Place "Wet Floor" caution signs in areas where floors are to be cleaned.
- + Read and follow floor-cleaner (chemical) instructions.

Floor-Care (Cleaning) Procedures

- + Ensure the mop, deck brush, squeegee, and water are clean.
- + After adding water to the mop bucket, swish the mop in the water and wring the mop lightly. It should be wet, but not dripping.
- + Glide mop on the floor in a figure-8 motion. Clean the floor one 10 ft. by 10 ft. area at a time.
- + Scrub the floor (with emphasis on dirty areas) with a deck brush. Allow the area to stand wet for three to five minutes.
- + Using a separate clean wet mop and bucket of clean water, rinse the floor, using the rinse mop on the soaking area. Regularly place mop back in bucket and wring out excess water.
- + When the water looks dirty, dispose of the dirty water, rinse the mop, add clean water, and continue mopping.
- + After mopping, use a squeegee or similar tool to push the water from the floor to the drains. When the floor is dry, remove the "Wet Floor" signs.
- + Rinse buckets, deck brush, mop, and squeegee until they're clean.

Mop-Cleaning Procedures

- + Rinse dirty water out of mops.
- + After buckets are cleaned, refill them with about a gallon of clean water.
- + Add a small amount of soap to the water, swish the mops around the water, and wring out the mops.
- + Refill the bucket with about two gallons of water, swish the mops around the water, and wring out the mops.
- + Hang the mops in a mop rack to dry.

General Tips

- + Always follow information on chemical safety data sheets and wear the required personal protection equipment.
- + Use cool water when diluting products.
- + Always add cleaner to water. Never add water to cleaner.
- + Use caution signs as floor surface may become extremely slippery.
- + Use both sides of the mop. Turn the mop over, keep mop on the floor, and gently fold over to avoid splashing walls, baseboards, carpet, etc.
- + Change solution frequently. A dirty solution cannot clean the floor.

3. Employee Footwear Selection and Use

Consistent use of proper footwear can significantly decrease slip and fall incidents in the workplace. Remember, not all rubber-soled shoes are created equal. Require employees to wear footwear specifically designed for slip-resistance on wet, greasy, and oily surfaces to reduce the potential for slip and fall incidents. Ensure adequate slip-resistant footwear meets workplace requirements and is appropriate for employee tasks. Provide employees with specific and approved slip-resistant footwear choices.

Purchasing Footwear

There are sufficient financial reasons to support paying for your employees' footwear, however, most safety footwear companies will set-up a footwear subsidy or payroll deduction program.

Zenith has arranged vendor discounts on slip-resistant footwear and floor-safety products as part of our vendor discount program. Visit Zenith Solution Center and enter "discount" in the search bar to learn more about this offer.

Enforcing the Footwear Policy

Management must consistently enforce the footwear policy. If you have a policy that requires slip-resistant footwear in the workplace, then everyone from the newest employee to the owner should wear slip-resistant footwear. To help employees (and management) follow the rules, keep several sets of slip-resistant over-shoes on hand. New employees who do not yet have the required slip-resistant footwear or other employees who forget their work footwear, can "check out" a pair of over-shoes to wear over their regular footwear.

Maintaining/Replacing Footwear

Like any piece of safety equipment, footwear must be properly maintained to remain effective at preventing slips and falls. Train employees on how to follow the manufacturer's recommendations for inspecting, cleaning, and maintaining their footwear. In addition, inspect footwear regularly to determine when the shoes need to be replaced. Most manufacturers recommend replacing footwear when the tread pattern is gone from the rear two-thirds of the heel.

Written Footwear Policy

Require employees to read and sign a written footwear policy.

A written policy is an effective way of documenting that new employees understand what is appropriate footwear and why it's important for their safety. Ensure all managers and supervisors understand that it's their responsibility to enforce the company's policies and rules.



4. Floor and Fall Safety Inspections

Self-inspections and facility hazard assessments can help identify slip, trip, and fall hazards before they result in injury. Employees should inspect their work areas regularly throughout the day, and correct any hazards. If additional resources or support are needed to correct hazards, employees should report them to their manager. The maintenance and management team should conduct their own safety inspections and follow-up on hazards they identify and those reported by employees to ensure adequate action has been taken to eliminate hazards.

Sample Company Shoe Policy

Employee Requirements

Employees of **Company Name** are responsible for wearing footwear appropriate for their job responsibilities.

Additional Job Title are required to wear footwear that have slip-resistant soles and heels for wet, greasy, or oily surfaces.

Additional footwear requirements for **Job Title** include: (To be completed based upon workplace needs and may include: crush resistant, ankle support, etc.)

I have read (or had explained to me), and understand completely **Company Name's** Shoe Policy and agree to abide by these rules.

Employee's Signature_____ Date_____

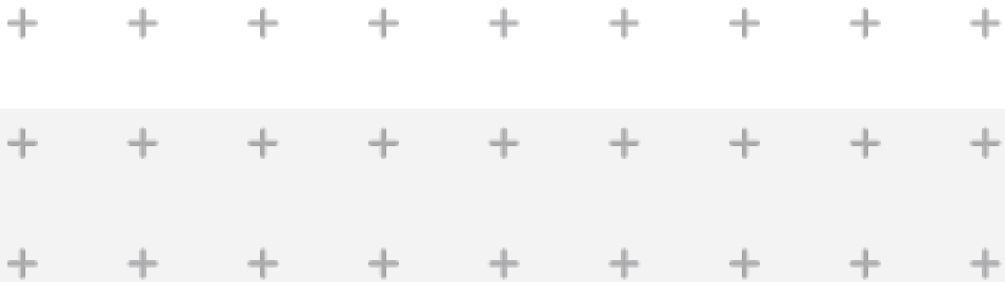
Witness's Signature_____ Date_____

Note to safety manager: This policy is only a sample. It should be reviewed and modified by management. In addition, written policies are only effective if they are strictly enforced. Additional rules relating to the policy may be necessary in your workplace or on worksites.

Company Floor Inspection Checklist Guidelines

Procedures & Policies	Yes	No
A. Person accountable for floor safety is on duty		
B. Cleaning procedures displayed		
C. Cleaning procedures followed		
D. Cleaning procedures enforced by management		
E. Employees cleaning verbally warn individuals entering the area		
F. Employees wearing slip-resistant footwear and appropriate personal protective equipment		
G. Safety Data Sheets readily available on all cleaning products		
Supplies & Equipment	Yes	No
A. Cleaning tool such as mops, deck brushes, and squeegees in good condition		
B. Cleaning tools properly cleaned and maintained		
C. Cleaning equipment and tools properly and safely stored		
D. Cleaning products used appropriately and approved for floor surfaces		
E. Floor "Caution" or "Wet Floor" signs available and in good condition		
F. Absorbent material present for spills		
Floor Condition & Maintenance	Yes	No
A. Floor surfaces in good condition (e.g. no broken tile, missing tile, loose mats, torn carpets)		
B. No buildups (food contaminants, minerals, cleaning agents etc.) on floor		
C. Grout clean and in good condition		
D. Floor surfaces have adequate traction to prevent slips and falls		
E. No uneven transitions between floor materials		
F. Walkways clear of obstructions (e.g., boxes, materials, ice, food)		
G. Floors free of spills		
H. Floor mats placed at exterior and kitchen entrances as needed		
I. Floors and floor mats around fryers free of grease		
J. Floors in walk-in coolers and freezers in good condition, textured, and free of ice buildup		
K. Floors around ice machines and in walk-in coolers free of standing water and ice cubes		
L. Floors around dishwasher free of standing water		
M. Floor drains adequately covered and maintained to prevent trip hazards		
Other Factors	Yes	No
A. Adequate lighting in all areas		
B. Stairs and ramps equipped with handrails and in good condition		
C. No equipment protruding that could cause someone to trip		
D. No electrical cords on floor to create a tripping hazard		

Completed By: _____ Date: _____ Time: _____



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