

# **PRESENTER'S GUIDE**

## **"SLIPS, TRIPS AND FALLS"**

**Part of the General Safety Series**

# **OUTLINE OF MAJOR PROGRAM POINTS**

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The following outline summarizes the major points of information presented in the program. The outline can be used to review the program before conducting a classroom session, as well as in preparing to lead a class discussion about the program.

- **In the old days, slapstick comedies used to get a lot of laughs when their performers slipped on a banana peel or tripped over their own feet, and fell down.**
  - But in the real world, slips, trips and falls are no laughing matter.
- **In fact, they're involved in most of the accidents that occur in workplaces every day.**
  - They cause 17% of disabling occupational injuries and 15% of on-the-job fatalities.
- **You don't have to fall a long way to hurt yourself.**
  - Just slipping on a wet floor or tripping over an open file drawer can result in a fall that lands you in the hospital with a broken bone, strained back, concussion or worse.
- **But most slips, trips and falls can be prevented.**
  - To avoid slips, trips and falls and the injuries that they can cause, it helps to understand just how we're able to stand and walk upright in the first place.
- **First, we need to know something about our "center of gravity".**
  - Our center of gravity is the point where the weight of the body is equally distributed, half above and half below.
  - It plays an important part in every movement that you make.

- **Imagine that you're standing up straight.**
  - Now draw a triangle, with your feet forming the two points at the "base", and the third point of the triangle at your lower back.
  - This upper point is located roughly where your center of gravity is.
  
- **As you move, these three points constantly change position.**
  - If the upper point extends out past the lower points, you can "lose" your balance.
  - Unless you regain it, you will fall.
  
- **Because the shape and size of your body has a direct impact on how naturally stable you are, it's easier for some people to keep their balance than for others.**
  - A short person will have a lower center of gravity and be more stable than a tall person.
  - It simply takes less of a push for the taller person's center of gravity to extend out past their feet, so that they fall over.
  
- **How you stand also affects your stability.**
  - You are in your most stable standing position when you are perfectly upright, with your arms at your sides.
  - This keeps your center of gravity low (at about the lower part of your spine) and over your feet.
  
- **But if you are slouching or hunching your shoulders, your center of gravity can extend out past your feet, making you less stable.**
  
- **Reaching forward or sideways for something can have the same effect.**
  
- **When you reach over your head, you raise your center of gravity, which also reduces your stability.**
  - The weight of anything that you're holding in this position just makes you that much more unstable.

- **How you carry something can affect your stability, as well.**
  - Putting a load on your shoulder not only raises your center of gravity, it throws it dangerously off to the side.
- **On the other hand, you can increase your stability by carrying objects close to your body and as low as you can while keeping your back straight.**
- **We tend to take walking for granted, but it's actually a pretty risky activity, because it requires us to fall and catch ourselves with every step!**
  - While we are doing that, there are a lot of chances for us to slip or trip along the way.
- **To better understand why we can trip or slip, it helps to know something about "momentum".**
  - Momentum is the "force of movement" that we build up as we move.
  - The momentum that we build up tends to keep our body and its center of gravity moving.
- **But if we encounter something that interferes with our progress, such as an object that is in the way or a slick walking surface, it can cause trouble.**
- **Trips generally occur when our foot or lower leg catches on something.**
  - This causes our lower body to stop while our momentum keeps our center of gravity moving, so that we lose our balance.
- **Stepping onto a lower level, such as when we're going down stairs, can also cause us to trip, especially if the surface is uneven or damaged.**

- **Slips are a little different. When we walk we need to have the best "grip", that is most friction, between the soles of our shoes and the walking surface.**
  - Slipping occurs when something interferes with that grip and causes our feet to move out from under our center of gravity while our momentum keeps us moving.
  - This causes us to lose our balance, which like tripping, can also result in a fall.
  
- **It's important to remember that our momentum increases when we walk faster, and when we carry more weight.**
  - These are two things that we're very likely to do when we're on the job.
  - The faster we go and the more that we carry, the more attention we need to pay to potential slip and trip hazards.
  
- **You need to watch out for fall hazards during a busy workday as well.**
  - If you don't, it can lead to pain, injuries and even worse.
  
- **For example, if you need to reach something up high, stacking up some pallets and standing on them may seem like a time-saver... until those pallets shift out from under you.**
  
- **If you choose to climb a ladder instead, be sure to keep your center of gravity positioned between the two upright rails.**
  - Losing your balance on a ladder could get you to the ground a lot faster and more painfully than you want to.
  
- **Different walking surfaces provide varying degrees of the friction that is needed by your feet to get a secure grip.**
  - Carpeting provides a better grip than a smooth tile floor.
  - A dry tile floor provides better grip than a floor that is wet.

- **You can avoid slipping by being aware of the type of surface that you are walking on, and how much traction it can provide.**
  - The walking surfaces you may encounter can be divided into three types... non-slip, moderately slippery and slippery.
- **Non-slip surfaces provide good traction regardless of whether they are wet or dry.**
  - They include rubber mats, carpet, surfaces covered with non-slip coatings and rough-textured concrete.
- **Moderately slippery surfaces are reasonably slip-resistant when dry, but can be very slippery when they are wet.**
  - These include vinyl flooring, unpolished ceramic tile, unfinished wood and smooth concrete.
- **Slippery surfaces don't provide much traction at all, whether they are wet or dry.**
  - They include polished marble and tile, smooth metal, varnished wood, freshly painted concrete and of course, ice.
- **The most slippery places inside of buildings tend to be near entrances, restrooms and around machinery.**
  - Often the floors in these locations are made of moderately slippery materials, such as vinyl, tile or painted concrete, which can become "skating rinks" when they get wet.
  - If possible these areas should be covered with non-slip materials, like rubber mats or carpeting.
- **You should always keep an eye out for oil, grease and street grime on walking surfaces.**
  - They can all increase the slipperiness of any surface.
  - Accumulations of dirt, sand or other granular or powdery materials can also make surfaces more slippery.

- **Outside of your building, you need to be careful when you are walking on sidewalks and pavements that may be wet or icy.**
- **Whether you're walking inside or outside, watch your step on ramps or other sloping surfaces.**
  - Your likelihood of slipping increases significantly when a surface isn't level.
- **The more disorderly and run-down a workplace becomes, the greater the number of slip, trip and fall hazards you're likely to encounter.**
  - Good housekeeping and maintenance practices can help to prevent these incidents, as well as the injuries they cause.
- **For example, you have to be able to see hazards to avoid them, so replacing a burned out light bulb can help you or a coworker avoid a slip, trip or fall.**
- **You need to keep all walking surfaces dry as well.**
  - If you discover some spilled water, use rags, paper towels or a mop to clean it up.
- **For substances like grease or oil that have accumulated on the floor:**
  - Spread an absorbent such as vermiculite or kitty litter over the area.
  - Sweep everything up and dispose of it properly.
- **Sometimes you may need to place a non-skid rubber mat or a piece of carpeting over a slippery spot.**
  - If you do, make sure that it lies flat and stays in place, so people won't trip over it.
- **There are lots of other slip, trip and fall hazards you can encounter on the job too.**
  - Walkways and other high-traffic areas should be kept clear of boxes, tools and other objects that could cause trips.



- **Remember to pick up small items off the floor, as well.**
  - Stepping on a pencil or a paperclip could send somebody "skating" when they least expect it.
- **Inspect stairways and clear them of debris and other obstacles.**
  - Check that the hand rails are firmly attached, and use them whenever you go up or down the stairs... just in case.
- **Loose flooring, torn carpet, protruding nails and small "potholes" can cause slips and trips as well.**
- **If you discover problems like these you should...**
  - Block them off from foot traffic so people won't trip over them.
  - Report the hazards so they can be repaired as soon as possible.
- **Make sure to close file cabinets and desk drawers after using them.**
  - That way they won't trip anyone who passes by later.
- **Sometimes even the cleanup process itself can create slip or trip hazards.**
  - When you use a wet mop, put out signs to warn people about the slippery floor.
- **Stretching power cords across "high traffic" areas and walkways creates a serious trip hazard.**
  - Instead, tape them down.
  - Don't leave them there for more than a few hours.
  - The tape will eventually loosen and create its own trip hazard!

- **While it's important to reduce or eliminate any slip, trip and fall hazards that exist in a workplace, it's also a good idea to wear shoes that will help protect you from them. They should:**
  - Fit properly.
  - Be comfortable.
  - Have soles and heels suited for the surfaces that you will be walking and standing on.
- **Avoid sandals and "open-toed" shoes with straps that can catch on things and cause you to trip.**
- **The heels of your shoes are especially important.**
  - Most slips occur when there is not enough friction between the heel and the walking surface beneath it.
  - To get a secure grip, the heels on your shoes should be low and wide.
- **High heels may look nice, but they can create real slip and trip hazards.**
  - They provide very little traction for your feet, and can trip you by catching on carpet or irregularities in a walking surface.
  - High heels also make you naturally unstable, because they raise your center of gravity.
- **Pay attention to the soles of your shoes as well.**
  - Soles made of synthetic soft rubber, such as those on sneakers and most "walking" shoes, can grip dry surfaces well but may slip in wet conditions.
- **Many work boots have soles made out of hard rubber.**
  - These soles don't provide particularly good friction on dry surface, but have good traction in areas that are wet or greasy.

- **Some men's and women's dress shoes with smooth leather soles can lose their grip even on carpet and other "non-slip" surfaces.**
  - Fortunately, many attractive business shoes have "slip-resistant" rubber soles.
  - These are not only a lot safer, but can also be more comfortable.
- **Raised patterns or texturing on the soles, called "tread", can greatly increase their slip-resistance as well.**
- **Some work shoes and most work boots have especially deep treads, to improve their grip and channel away water or other liquids that could reduce their friction with a walking surface.**
  - But an embedded pebble or thumbtack can turn even a slip-resistant shoe into a skate.
  - So inspect the treads on your shoes frequently, and remove any foreign objects that you find.
- **Even when we do our best to avoid them, slips, trips and falls can still occur.**
  - They happen quickly and without warning, so it's important to know ahead of time what you can do to avoid an injury or lessen its severity.
  - You also need to know how to treat any injuries you might experience.
- **What you do with your body when you fall can make a big difference in how much of an injury may result. The important thing to remember is to stay loose:**
  - Relax, don't tense up.
  - Bend at your elbows and knees
  - Allow your muscles to absorb the impact gradually.
  - Roll in the direction of the fall.
- **Do not try to break a fall with your hands.**
  - If you land with all of your body weight on a hand, you could seriously sprain your wrist or even break some bones.

- **If a coworker is hurt in a fall, there are a few first aid guidelines to follow.**
- **For minor injuries, there are several things you can do:**
  - Clean any visible wounds with water.
  - Stop any bleeding by applying pressure with a sterile dressing or a clean cloth.
  - Apply ice wrapped in a cloth or towel to reduce pain and swelling.
- **You should call 911 immediately if:**
  - The victim is unconscious, unable to move or has difficulty breathing.
  - The injury bleeds heavily, or there is bleeding from the nose, ears, or mouth.
  - You think the head, neck, back, or hip may have been affected.
- **In some cases the EMT dispatcher may be able to assist you with basic first aid instructions.**
- **Finally, you should comfort the injured person.**
  - Stay with them until they have recovered or emergency assistance arrives.

**\* \* \* SUMMARY \* \* \***

- **When standing, walking and working, you can increase your stability by keeping your center of gravity low.**
- **Pay attention to the surfaces you walk on and avoid slip and trip hazards.**
- **Clean up spills immediately and keep walkways free of clutter and other obstacles.**
- **Wear shoes or boots that will give your feet the most secure grip for the conditions that you are working in.**
- **If you do fall, remember to relax and roll with it.**

- **By "staying on your toes" you can help to reduce or eliminate any slip, trip and fall hazards in your workplace, and avoid the injuries that they can cause... so you can go home safe at the end of every day!**