MAJOR PROGRAM POINTS

"AVOIDING SLIPS, TRIPS AND FALLS"

Part of the "GENERAL SAFETY SERIES"

Quality Safety and Health Products, for Today...and Tomorrow

Outline of Major Points Covered in the "Slips, Trips and Falls" Course

The following outline summarizes the major points of information presented in the course on "Slips, Trips and Falls". The outline can be used to survey the course before taking it on a computer, as well as to review the course when a computer is not available.

- **According to OSHA… "Slips, trips and falls constitute the majority of general industry accidents."**
  - And falls result in 15% of all accidental deaths, second only to motor vehicle fatalities.

- **It's important to realize that it doesn't take falling from a high place to injure you.**
  - Simply slipping on a wet floor…or tripping over a small object… can result in a fall that lands you in the hospital with a broken bone, strained back or concussion.

- **To avoid these types of accidents, you need to understand how your body maintains its balance as your "center of gravity" changes.**
  - "Center of gravity" is defined as the point at which the entire weight of an object can be balanced.
  - Most people are not conscious of their center of gravity, yet it is an integral part of every movement that you make.

- **Imagine that you are standing straight up.**
  - 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.
  - The upper point is roughly where your center of gravity is.

- **These three points constantly change position as you move.**
  - If the upper point extends out past the lower points you will "lose" your balance.
  - Unless you regain your balance, you will fall.

- **As with any object, the shape and size of your body will have a direct impact on how "naturally" stable you are.**
  - 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" to cause the taller person to extend their center of gravity out past their feet… and fall over.

- **Weight is also a contributing factor.**
  - A person who is "barrel-chested" will have a higher center of gravity and be more "top heavy" than someone who is thinner.

- **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 (around the lower part of your spine) and over your feet.
  - If you hunch over or slouch, your center of gravity can extend out past your feet, making you less stable.

- **Reaching for something can also cause you to lose your balance.**
  - In fact, when you reach over your head, your center of gravity rises dramatically and you become extremely unstable.
  - So you should get a stepladder if you need to get something up high.

- **But you need to be careful on ladders. They become an "extension" of your body.**
  - The higher you are on a ladder, the higher your center of gravity becomes… and the less stable you will be.
  - So it's always a good idea to have someone steady the ladder, to make sure that you don't lose your balance.

- **Carrying something can make you unstable, as well… especially if you position it incorrectly.**
  - For instance, putting a load on your shoulder not only raises your center of gravity, it throws it dangerously off to the side.
  - To maintain you stability, you should carry objects at waist level and close to your body (this keeps your center of gravity low and balanced over your feet).

- **Maintaining your balance is especially important when you walk, since this is when you are most likely to trip or slip.**
  - Most people take walking for granted, but it requires split-second timing, and a lot of dexterity.
  - When you walk, you lean forward, extending your center of gravity out past your feet.
  - Taking a step to "keep up" with your center of gravity prevents you from falling.

- **As you walk, you "plant" one foot as you move the other.**
  - Since a single foot does not provide much of a "base of support", it does not take much to cause you to slip or trip.

- **"Trips" usually occur when you stumble on uneven walking surfaces or objects that are in your path.**

- **"Slips" are caused by a lack of friction between the soles of your shoes and the surface that you are walking on.**

- **Slips generally happen while you are on surfaces that are smooth, slick or wet. But there are other factors that can contribute to you slipping as well, such as:**
  - The slope of the surface.
  - Wearing shoes that don't provide adequate traction.
  - The "momentum" that you build up while walking.

- **Momentum is the "force" behind your movement. It is generated by your weight and the speed at which you walk.**
  - When you walk, you build up more momentum than someone who walks slower or weighs less than you.
  - Likewise, when you carry a heavy object you create more momentum than when you are not carrying anything at all.

- **The more momentum that you produce, the more friction you need between the soles of your shoes and the walking surface to keep you from slipping**
  - The more momentum you have, the more difficult it is for you to regain your footing and stop yourself from falling.

- **Different walking surfaces provide varying degrees of friction.**
  - For instance, carpeting has a lot more friction than a smooth tile floor.
  - A dry tile floor provides more friction than one that is wet.

- **You can avoid slipping by being aware of the type of surface that you are walking on, and knowing how much traction it provides.**

- **Let's look at some of the walking surfaces that you may encounter. They can be divided into three types:**
  - Non-slip.
  - Moderately slippery.
  - Slippery.

- **"Non-slip" surfaces provide traction regardless of whether they are wet or dry. They include:**
  - Carpet.
  - Rough-textured concrete.
  - Rubber mats
  - Textured steel plate.
  - Surfaces covered with abrasive paint or non-slip coatings.

- **"Moderately slippery" surfaces are reasonably slip-resistant when they are dry…but can be very slippery when they are wet. These include:**
  - Unpolished ceramic tile.
  - Vinyl.
  - Smooth concrete.
  - Unfinished wood.

- **"Slippery" surfaces don't provide much traction, wet or dry. They include:**
  - Polished marble and tile.
  - Smooth metal.
  - Freshly painted concrete.
  - Varnished wood.

- **The most slippery places inside of buildings tend to be near entrances, restrooms and areas around machinery.**
  - Often the floors in these locations are made of moderately slippery materials, such as vinyl, tile or concrete… which can become "skating rinks" when they get wet.
  - If possible these areas should be covered with "non-slip" materials, such as rubber mats or carpeting.

- **Outside of your building, you need to be careful when walking on sidewalks and pavements that may be wet or icy.**

- **In addition to water, there are other "slippery" things that you need to keep an eye out for, such as:**
  - Dirt.
  - Sand.
  - Sawdust.
  - Metal shavings.
  - Packaging materials.
  - Loose gravel.
  - Grease.
  - "Street grime".

- **You also need to be careful when you are walking on ramps or other sloping surfaces.**
  - The likelihood of slipping increases when a surface is not level.

- **Keeping everything neat, tidy and well maintained can go a long way in helping to avoid slips, trips and falls. For instance:**
  - You have to be able to see hazards to avoid them.
  - So something as simple as replacing a burned out light bulb can prevent you from tripping over an object on the floor.

- **To help prevent slipping, keep walking surfaces dry… and clean up loose material.**
  - Use absorbent substances like vermiculite or kitty litter to soak up any grease or oil, but be sure to sweep everything up when you're done.
  - You can also use a non-skid rubber mat or a piece of carpeting to cover a slippery spot (make sure that these lie flat and stay in place, so that they don't create a tripping hazard).

- **You "slip" on surfaces, but you "trip" on objects.**
  - Boxes, tools and other things that are left where people walk are a leading cause of trips.
  - Remember, even small items such as pencils and paperclips can cause people to "skate" across the floor (so pick them up whenever you see them).

- **Inspect stairways, to ensure that they are clear of debris.**
  - Check to see that handrails are firmly attached… and use them whenever you go up or down the stairs.

- **Loose floorboards, torn carpet, protruding nails and small "potholes" in the floor are also dangerous.**
  - Cordon off these areas with "caution" tape.
  - Then have the hazards repaired.

- **Make sure that you close file cabinets and desk drawers before you walk away, so that someone doesn't trip over them.**

- **Even the process of "cleaning up" can create slip or trip hazards.**
  - Place signs to warn people of "wet floors" that you have mopped.
  - Make sure that you don't stretch your vacuum cleaner's cord across pathways.

- **If you do need to use a power cord in a high traffic area, tape the cord down.**
  - But don't leave it there for more than a few hours, since the tape will eventually loosen.

- **A clean and well maintained workplace can eliminate many slip hazards, but to be truly "slip-resistant" you need to wear the proper shoes.**

- **Some jobs require you to wear "many hats." To avoid slipping on the job you may need several different pairs of shoes as well. For instance, if you are a salesperson you might want to:**
  - Wear dress shoes to meet with a client in their office
  - But switch to safety shoes with "slip resistant" soles when you tour their manufacturing facilities.

- **Shoes should always:**
  - Fit properly.
  - Be comfortable.
  - Have soles and heels that are suited for the surfaces that you will be walking on.

- **The heels of your shoes are especially important.**
  - They are the first part of your shoes to come in contact with the floor when you take a step.
  - Most slips occur when there is not enough friction between the heel of your shoe and the walking surface to counteract the momentum that is created as your body weight shifts to the forward leg.

- **To help avoid slips you should make sure that the heels on your shoes are in good condition, and are as low and wide as possible.**
  - While high heels may look nice, they don't provide much traction… and can cause real slipping problems.
  - High heels are also unstable.
  - They can catch on carpet or groves in the floor, too.

- **You also need to pay attention to what the soles of your shoes are made of, and how much tread they have on them.**
  - Nowadays most shoes and boots have soles made of synthetic rubber.
  - However, a few soles are still made with natural rubber.
  - Some shoes even have leather soles.

- **Soles made of soft synthetic rubber, such as those that are found on sneakers and most "walking" shoes…**
  - Are effective on dry surfaces.
  - But may be slippery when conditions are wet.

- **Many work boots have soles made out of hard rubber.**
  - These soles do not provide as much friction on dry surfaces.
  - But they have good traction in areas that are wet or greasy.

- **Some men's and women's dress shoes have smooth leather soles.**
  - These can be slippery even on carpet and other "non-slip" surfaces.

- **Fortunately there are many attractive business shoes with "slip-resistant" rubber soles.**
  - These are not only a lot safer than leather-soled business shoes… they also tend to be more comfortable.

- **But it is not just the materials that soles are made of that give many of them their slip-resistant qualities.**
  - It's also the added friction provided by the raised pattern or "tread" on the soles.

- **Where "traditional" business shoes tend to have smooth soles, slip-resistant soles have groves cut into the bottom of them.**
  - The soles of most work shoes and boots have especially deep treads, which channel water away.
  - This prevents you from slipping (just like the tread on automobile tires channels away water to keep cars from skidding).

- **Whatever footwear you choose, make sure that it is in good shape.**
  - Inspect your shoes for worn laces, torn stitches and loose soles.
  - Look for imbedded foreign objects (even a small stone or thumbtack can turn a slip-resistant shoe into a "skate").

- **Falls happen quickly, but if you know how to fall properly you can avoid ending up flat on your face.**
  - The important thing to remember is to not tense up.
  - By remaining "loose" you will decrease the chances of serious injury.

- **As you fall… relax.**
  - Bend your elbows and knees.
  - Allow your muscles to gradually absorb the impact.
  - Roll in the direction of the fall.

- **Don't 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 break a bone.

- **If a fall does result in an injury, you may need to give the victim first aid.**
  - But only attempt first aid if you have been trained to handle the apparent injury.

- **If someone has sprained an arm or leg...**
  - Wrap it in an ace bandage.
  - Then apply a cold compress.
  - Keep the injured area elevated.
  - Seek medical attention.

- **Broken bones should be stabilized before moving the victim.**
  - Keep the injured limb in the position in which you find it.
  - Put it in a splint.
  - Apply an ice pack or cold compress to reduce swelling.

- **Broken bones sometimes require surgery, so don't let the victim eat anything.**
  - A person can't be given anesthesia with food in their stomach.

- **If a bone is sticking through the skin, <u>don't</u> move the victim.**
  - Call for emergency medical personnel.
  - Keep the victim in the position in which you found them.
  - Don't try to force the bone back in place or clean the wound.

- **Never move anyone who has been knocked unconscious, or who may have seriously injured their head, neck, back or hips.**
  - Keep them immobile.
  - Call 911 to get emergency medical help.

*** * * SUMMARY * * ***

- **By putting your "best foot forward," you can avoid slipping, tripping and falling. Let's review.**

- **Maintain your center of gravity with good posture, and by carrying objects low and close to your body.**

- **Pay attention to the surface that you are walking on, and look for slip and trip hazards.**

- **Cover slippery floors with rubber mats or other materials that provide traction.**

- **Clean up spills and keep walking areas free of all obstacles.**

- **Wear the proper shoes or boots for the conditions that you will be working in.**

- **If you do fall, remember to relax and roll with it.**

- **Most of all, to prevent slips, trips and falls remember to maintain your balance… watch where you are going… and avoid any hazards that are in your path!**