

## 2021 OVERVIEW SERIES: SLIPS, TRIPS AND FALLS FACT SHEET

**LENGTH: 12 MINUTES**

### **PROGRAM SYNOPSIS:**

The statistics related to slips, trips and falls in the workplace are staggering—nearly 16 million fall injuries occur each year. These mishaps are the second leading cause of fatalities on the job and the third leading cause of employee disability. To help prevent fall injuries at your facility, your organization provides training on the common factors and hazards that contribute to falling and the safe work practices that should be followed to control them. That's the purpose of this program—to provide viewers with a basic understanding of how and why slips, trips and falls occur in the workplace and the precautions we all can take to prevent these incidents.

Topics include factors in maintaining balance and stability, selecting proper footwear, understanding and preventing slips and trips, unsafe acts that contribute to falls and safe work practices to prevent falls.

### **PROGRAM OBJECTIVES:**

After watching the program, the participant should be able to explain the following:

- How your center of gravity, friction and momentum affect your ability to maintain balance and stability;
- Why it is critical to wear the proper footwear for your work environment;
- Which common slip hazards can be found in the workplace and how to avoid them;
- How a trip occurs and how good housekeeping is critical in preventing tripping hazards;
- Which unsafe acts committed by employees contribute to falls;
- Which basic safe work practices employees can follow to reduce the risk of falling.

### **INSTRUCTIONAL CONTENT:**

#### **UNDERSTANDING AND PREVENTING SLIPS, TRIPS AND FALLS: OVERVIEW**

- The statistics related to slips, trips and falls in the workplace are staggering—nearly 16 million fall injuries occur each year. These mishaps are the second leading cause of fatalities on the job and the third leading cause of employee disability.
- To prevent falls, we need to understand the difference between a slip and a trip and learn about the common factors that contribute to falling.
- A slip occurs when a substance reduces the friction between our footwear and the surface on which we are standing or walking.
- Common workplace slip hazards include leaks or spills of liquids and certain solid materials, such as metal filings or cardboard, that can reduce friction. To avoid slip hazards, you must pay close attention to the walking surface when traveling through the workplace.
- It's also important to select footwear with soles designed to provide good traction in your particular work environment.
- A trip occurs when we lose our balance after one or both feet are impeded by an obstruction such as an extension cord, pallet or similar object. To prevent trips, good housekeeping practices must be followed so that tripping hazards do not accumulate in walkways or on stairs.
- You must always inspect your intended route before traveling and remain on the lookout for trip hazards as you walk.

- The position of our center of gravity relative to our feet plays a critical role in the likelihood a fall will occur. When our center of gravity moves beyond the base of support created by our feet, it is much more likely that we will lose our balance and fall.
- This is what occurs during a slip or trip. Our center of gravity is suddenly shifted beyond our base of support and the constant force of gravity pulls us down to the ground.
- Momentum also plays a role. The more momentum a person is carrying at the time of a slip or trip, the faster and farther the center of gravity will extend beyond the base of support, making a fall much more likely. This is just one reason why you should never run in the workplace.
- We all have a duty to prevent falls by following good housekeeping practices and correcting or marking slip and trip hazards whenever they are discovered.
- Always walk at a slow, safe speed while also scanning your travel path for fall hazards as you move about the workplace.

### **FACTORS IN MAINTAINING BALANCE AND STABILITY**

- To prevent falls, we need to understand the various factors that affect balance and stability.
- The “center of gravity” or “center of mass” is the point on which the force of gravity acts uniformly to pull a body directly downward.
- A stable person’s center of gravity is located near their lower back and is directly over the base of support created by their feet. When this is the case, a person will be stable and well-balanced as the force of gravity pulls downward, directly onto the base of support.
- When a person leans forward or backward, their center of gravity begins to move beyond their base of support and they become unstable and off balance. When the center of gravity extends too far beyond the base of support, a fall will occur.
- Remaining stable and well-balanced while walking requires that your center of gravity remain aligned with your base of support.
- One factor that helps you do this is friction. Friction between the soles of your footwear and the walking surface helps keep your base of support, your feet, aligned with your center of gravity while walking.
- If there is a loss of friction, or traction, such as when walking on ice or other slippery surfaces, your feet can slip or slide beyond the center of gravity causing a loss of balance and a fall. This type of fall is referred to as a “slip and fall.”
- Another factor related to stability and balance is momentum. When an object is in motion, it has momentum. The faster an object is traveling, the more momentum it has and the harder it is for the object to stop.
- When we are walking or running, we also have momentum, and if our feet are stopped suddenly, our center of gravity will continue moving beyond our base of support, causing a loss of balance and a fall. This type of fall is referred to as a “trip and fall.”
- Gravity, friction and momentum are all factors that act upon our center of gravity and our base of support that affect our balance and stability. Understanding and controlling these various fall factors is critical to preventing slips, trips and falls.

### **SELECTING PROPER FOOTWEAR**

- Wearing the proper footwear for your work environment is critical in maintaining good traction and preventing slips and falls.
- Most types of safety footwear are equipped with slip-resistant soles; however, many soles are designed for a specific type of working surface and may not be effective in all situations.
- Make sure you select and wear the appropriate type of footwear for your work area. Ask your supervisor if you are unsure.
- Periodically inspect the condition and tread wear of your shoes, paying close attention to the heels. Many slips result from a lack of friction between the heel of the shoe and the walking surface.

- Also, make sure to clean off any mud, oil or other slippery substances and foreign objects that have accumulated on the sole before reporting to your work area each day.
- Be aware that dress shoes and casual footwear offer very little traction and are not appropriate in an industrial or shop setting. Always take the time to put on the correct footwear for the environment you plan to enter.

### **UNDERSTANDING AND PREVENTING SLIPS**

- A slip occurs when a substance reduces the friction between our footwear and the surface on which we are standing or walking. As our feet slip or slide out from under our center of gravity, we will lose our balance and fall.
- Common workplace slip hazards include leaks or spills of water, grease, oil and similar liquids.
- Be aware that solid materials such as sawdust, metal shavings, cardboard and other objects can also cause us to slip and fall. This is why maintaining a clean and orderly work area is an important part of fall prevention.
- To avoid slip hazards, you must pay close attention to the walking surface when traveling through the workplace. Be extra careful when entering buildings and restrooms, as floors are often slippery in these areas.
- Do not run in the workplace. Always travel at a slow, safe speed.
- If you discover a slip hazard, don't ignore it. If possible, clean up the slip hazard right away; otherwise, mark it in some way and report it to the proper authority so it may be corrected.
- Avoid walking on slippery surfaces whenever possible. If you have no choice but to walk across a slippery surface, take a wide stance and point your feet slightly outward. Then take short, shuffling steps to help maintain your balance.

### **UNDERSTANDING AND PREVENTING TRIPS**

- A trip occurs when our feet are stopped or impeded by an object while in motion. When this occurs, our center of gravity and upper body will continue moving forward, beyond our base of support, causing a loss of balance and a fall.
- Many trip hazards are created by poor housekeeping. It's critical to keep your work area clean, organized and free of tripping hazards while you work.
- Organize your supplies, tools and other items so they don't end up in a travel path or walkway. Do not store items on stairs or near doorways.
- Cords and hoses are a common cause of tripping. Do not allow cords or hoses to be placed across a walkway. If this is unavoidable, secure them to the floor and mark the hazard to alert others.
- If you discover a tripping hazard, correct it if you can; otherwise, mark it in some way and report it to the proper authority so it may be corrected.
- When moving about the workplace, travel at a slow, safe speed and constantly scan your travel path for any type of fall hazard.

### **UNSAFE ACTS THAT CONTRIBUTE TO FALLS**

- Many slip, trip and fall injuries involve unsafe acts committed by employees.
- The number one unsafe act that contributes to fall injuries is distraction. Being distracted can prevent a person from scanning their path of travel for hazards as they move about the workplace.
- Common causes of distraction that must be avoided include in-depth conversations, daydreaming, texting, reading or any other activity that takes your eyes and mind away from your route while walking.
- Next is running. Never run in the workplace. Running is unsafe for a multitude of reasons, including reducing our time to recognize hazards or react to changing conditions.
- Running also increases our momentum, which makes it harder to stop or change direction when needed and makes it much more likely that we will fall if a slip or trip hazard is encountered.

- Venturing into unauthorized travel areas is another unsafe act that contributes to falling. Stay within marked walkways and approved travel paths whenever possible. Do not cross over conveyers or take shortcuts through work areas not intended for through traffic.
- When entering an unfamiliar area, take a moment to look around for hazards before entering.
- Finally, do not participate in horseplay such as chasing or pushing coworkers, tossing tools or objects and other similar activities. These types of unsafe acts can be distracting and easily lead to a fall or other serious incident.

### **SAFE WORK PRACTICES TO PREVENT FALLS**

- In addition to staying alert for trip and slip hazards, there are some additional safe work practices you can follow to reduce the risk of falling.
- Make sure the area you plan to travel is properly illuminated. Always turn on the lights when traveling through dark areas or use a flashlight if no working lights are present.
- Similarly, don't allow any load you are carrying to block your view of the path of travel.
- Before entering a new area, stop for a moment and assess the area for any fall hazards that may exist.
- Also, consider how your actions may create fall hazards for others. File cabinet drawers, extension cords, pallets, tools and work materials are commonly used items that frequently become trip or slip hazards when left unattended or not returned to their proper storage location. Make sure your work doesn't create fall hazards for others.
- When slip or trip hazards are discovered, make sure they are corrected right away so others are not placed at risk.
- Safely traveling about the workplace requires us to remain alert and aware of any hazards around us. Avoid becoming distracted and do not get in a hurry. Distractions and rushing are common contributors to slips, trips and falls.
- Be especially careful when walking up or down stairs, traveling on inclined surfaces or transitioning from one type of surface to another. Always keep one hand on the handrail when one is present and only take one step at a time.
- When moving around the workplace, stay within marked walkways and approved travel paths.

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**ANSWERS TO THE REVIEW QUIZ**

1. b

2. c

3. a

4. a

5. b

6. b

7. b

8. a

9. c

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**REVIEW QUIZ**

Name \_\_\_\_\_ Date \_\_\_\_\_

*The following questions are provided to determine how well you understand the information presented in this program.*

1. A stable person's center of gravity is located near \_\_\_\_\_ back and is directly over the base of support created by their feet.
  - a. The middle of their
  - b. Their lower
  - c. Their upper
  
2. Which of the following is NOT a factor that acts upon our center of gravity and our base of support that affect our balance and stability?
  - a. Gravity
  - b. Momentum
  - c. Resistance
  - d. Friction
  
3. Wearing the proper footwear for your work environment is critical in maintaining good traction and preventing slips and falls.
  - a. True
  - b. False
  
4. Solid materials such as sawdust, metal shavings, cardboard and other objects can cause us to slip and fall.
  - a. True
  - b. False
  
5. When walking across a slippery surface, you should take a wide stance and point your feet slightly \_\_\_\_\_, then take short, shuffling steps.
  - a. Inward
  - b. Outward
  
6. You should only store items on stairs or near doorways that are seldomly used.
  - a. True
  - b. False
  
7. The number one unsafe act that contributes to fall injuries is \_\_\_\_\_.
  - a. Running
  - b. Distraction
  - c. Horseplay
  
8. You should never run in the workplace.
  - a. True
  - b. False
  
9. When you discover slip or trip hazards in your workplace, you should make sure they are corrected \_\_\_\_\_.
  - a. At the end of your shift
  - b. After you complete your current task
  - c. Right away