HealthStream Regulatory Script

Preventing Slips, Trips, and Falls in the Workplace

Version: May 2007

Lesson 1: Introduction
Lesson 2: Slips: Causes and Prevention
Lesson 3: Trips: Causes and Prevention
Lesson 4: Falls: Risky Situations, Prevention, and Falling Safely
Welcome to the introductory lesson on preventing slips, trips, and falls in the workplace.

As your partner, HealthStream strives to provide its customers with excellence in regulatory learning solutions. As new guidelines are continually issued by regulatory agencies, we work to update courses, as needed, in a timely manner. Since responsibility for complying with new guidelines remains with your organization, HealthStream encourages you to routinely check all relevant regulatory agencies directly for the latest updates for clinical/organizational guidelines.

If you have concerns about any aspect of the safety or quality of patient care in your organization, be aware that you may report these concerns directly to The Joint Commission.
All workers are at risk of dangerous slips, trips, and falls.

You do not need to work on ladders or scaffolds to be at risk.

In fact, falls are the third leading cause of disabling work injury for all workers in the United States.

Slips and trips without falling can cause additional work injuries. These injuries include strains and sprains that happen when a person tries to regain balance after a slip or a trip.

Overall in the United States, slips, trips, and falls cause:
- 15% of all accidental deaths
- 10% of all injuries

Learning how to prevent slips, trips, and falls will help you to avoid injury.
### Course Goals

After completing this course, you should be able to:

- Recognize risk factors for slips, and how to guard against these risks
- Identify risk factors for trips, and how to guard against these risks
- Recognize situations in which a fall-to-below could occur, and list methods for preventing falls in these situations
- List techniques for falling safely
Course Outline

This introductory lesson gave the course rationale and goals.

Lesson 2 explains how and why slips occur. This lesson also gives recommendations for preventing slips, including related OSHA [glossary] regulations.

Lesson 3 discusses trips. This includes causes, prevention, and related OSHA regulations.

Lesson 4 covers falls. This includes causes, prevention, related OSHA regulations, and how to fall safely.
Lesson 2: Slips: Causes and Prevention

2001

Introduction & Objectives

Welcome to the lesson on why slips occur and how to prevent them.

After completing this lesson, you should be able to:
- Recognize how slips occur
- Identify factors that can increase the risk of slips
- List strategies for preventing slips

FLASH ANIMATION: 2001.SWF/FLA

Lesson Map

Slips: Causes and Prevention

- Lack of frictions
- Contributing factors
- Preventative strategies
2002

The How and Why of Slips

Slips happen when there is a **loss of friction** between a person’s feet and the walking surface.

When there is enough friction, walking surfaces provide **resistance**. This keeps the feet safely under the body’s center of balance during the motion of walking.

Without enough friction, it is easy for the feet to slip too far out from under the body’s center of balance. This results in a loss of balance and a possible fall.
### Lack of Friction: Contributing Factors

Many factors can contribute to a lack of friction. These factors include:

- **Slippery floor surfaces**
- **Slippery materials on floor surfaces**
- **Improper footwear**

Click on each factor for examples.

**Slippery floor surfaces**
These include:
- Smooth shiny tile
- Metal worn smooth by many feet
- Smooth-finished concrete

**Slippery materials on floor surfaces**
Theese include:
- Ice, snow, or water
- Oil, grease, or similar liquids
- Sand, mud, or similar materials

**Improper footwear**
Examples include:
- High heels
- Shoes with slippery soles, such as hard leather
- Shoes with metal cleats
Preventing Slips

To prevent slips, each risk factor must be addressed.

Remember: These factors include:
- Slippery floor surfaces
- Slippery materials on floor surfaces
- Improper footwear

In addition:
- Watch where you're going
- Know how to walk on unavoidable slippery surfaces

Let's take a closer look at preventive strategies in each category.
Appropriate floors are critical for preventing slips. Very smooth floors should not be used in areas that are likely to become wet. For example, smooth shiny tile should not be used in bathrooms.

Floors can be made less slippery by methods such as:

- Applying an anti-slip coating
- Acid-etching \textbf{[glossary]} the surface of the floor
- Cutting grooves into the surface of the floor

If you are aware of a floor that could be a slip hazard in your work area, tell your supervisor.

Your facility will decide what to do to take care of the hazard.
Prevention: Slippery Materials

OSHA sets standards for working and walking surfaces in the workplace.

According to these standards:
- Work areas must be kept clean, orderly, and sanitary.
- Workroom floors must be kept clean and as dry as possible.

To comply with OSHA standards and help prevent slips:
- Report or clean up all spills immediately. Always use the proper cleaning supplies.
- Dry all floors after mopping.
- Sometimes it is not possible to clean spills immediately or dry floors after mopping. In this case, use a temporary sign or barrier to warn that the floor is wet.
- Maintain drainage and provide dry standing places where wet processes are used.
All workers should wear low-heel shoes with non-skid soles. Rubber is usually a good non-skid sole. However, the best type of sole to prevent slips may depend on the walking surface in your work area. Check with your supervisor if you do not know which type of shoe is best for your working conditions.

When working outdoors in icy conditions, wear studded rubber pullovers. These can provide extra protection against slips.

When working in areas where wet processes are used, wear waterproof shoes or boots.
<table>
<thead>
<tr>
<th>Prevention: Watching Your Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always watch where you're walking!</td>
</tr>
<tr>
<td>Be especially alert for slick walking surfaces:</td>
</tr>
<tr>
<td>• Around building entrances</td>
</tr>
<tr>
<td>• In eating and drinking areas</td>
</tr>
<tr>
<td>• Around fountains, sinks, or other sources of water</td>
</tr>
<tr>
<td>• On sidewalks and parking lots</td>
</tr>
<tr>
<td>If you see a slip hazard, go around it if possible.</td>
</tr>
</tbody>
</table>
Prevention: Walking on Slippery Surfaces

Sometimes, it is not possible to go around a slick area. In this case, walk like a duck:

- Take small steps. Each step should be shorter than your foot length. This helps keep your feet under your center of balance.
- Point your toes outward. This gives a wider, more stable base of support for keeping your balance.
- Turn gradually. Sharp turns create a sideways force that may cause you to lose your balance and fall.
- Keep both hands free to help maintain balance. Do not put your hands in your pockets.

![Image: 2009.jpg](IMAGE: 2009.jpg)
**Slipping hazards include:**

- a. Water on the surface of a floor
- b. Acid-etching on the surface of a floor
- c. Grooves cut into the surface of a floor
- d. All of the above
- e. None of the above

**MULTIPLE CHOICE INTERACTION**

Correct answer: A

Feedback for A: Correct.

Feedback for B: Incorrect. Acid-etching on the surface of a floor can increase friction. This decreases the risk of slips. The correct answer is A. Water on the surface of a floor is a slip hazard.

Feedback for C: Incorrect. Grooves cut into the surface of a floor can increase friction. This decreases the risk of slips. The correct answer is A. Water on the surface of a floor is a slip hazard.

Feedback for D: Incorrect. Both acid-etching and grooves cut into the surface of a floor can increase friction. This decreases the risk of slips. The correct answer is A. Water on the surface of a floor is a slip hazard.

Feedback for E: Incorrect. The correct answer is A. Both acid-etching and grooves cut into the surface of a floor can increase friction. This decreases the risk of slips. However, water on the surface of a floor is a slip hazard.
According to OSHA, workroom floors must be kept clean and as dry as possible.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a.</strong> True</td>
<td><strong>TRUE / FALSE INTERACTION</strong></td>
</tr>
<tr>
<td><strong>b.</strong> False</td>
<td>Correct answer: A</td>
</tr>
</tbody>
</table>

Feedback for A: Correct. This statement is true.

Feedback for B: Incorrect. This statement is true.
You have completed the lesson on the cause and prevention of slips.

Remember:

- Slips happen when there is not enough friction between a person’s feet and the walking surface.
- Factors that can decrease friction include:
  - Slippery floor surfaces
  - Slippery materials on floor surfaces
  - Improper footwear
- To prevent slips:
  - Eliminate slippery floor surfaces
  - Keep walking surfaces free of slippery materials
  - Wear proper shoes
  - Watch your step
  - Know how to walk on slippery surfaces
Lesson 3: Trips: Causes and Prevention

**3001**

**Introduction & Objectives**

Welcome to the lesson on why trips occur, and how to prevent them.

After completing this lesson, you should be able to:

- Recognize how trips occur.
- Identify risk factors for trips.
- List strategies for preventing trips.

<table>
<thead>
<tr>
<th>Flash Animation: 3001.SWF/FLA</th>
</tr>
</thead>
</table>

**Lesson Map**

- Lack of frictions
- Contributing factors
- Preventative strategies
Remember: *Slips* result from a loss of *friction*.

*Trips* result from a loss of *footing*.
Loss of footing happens when the sole of the foot does not make full or proper contact with the walking surface. This can happen because of:

- Objects or clutter in the walkway
- Defects in the walking surface (cracked or worn concrete or tiles; frayed, lifted, or curled mats or rugs)
- “Ankle-biters” or “knee-knockers” (objects sticking out into the pathway at ankle or knee height)
- Cords or cables crossing the pathway
- Uneven walking surfaces or changes in floor level
- Poor view of the walking surface due to poor lighting
- Poor view of the walking surface due to carrying a load

Carrying objects that obstruct your vision could lead to a trip.
Remember: OSHA standards require work areas to be kept clean and orderly.

OSHA standards also state that floors must not have protruding nails, splinters, holes, or loose boards.

Finally, under OSHA standards, aisles and passageways must be kept:

- Clear and in good repair
- Free of obstructions that could create a hazard

To comply with OSHA and help prevent trips:

- Keep objects and clutter out of walkways
- Correct or report defects in walking surfaces
- Protect against ankle-biters and knee-knockers
- Keep cords and cables out of pathways

Let’s take a closer look at each of these strategies.
Prevention: Clutter

If you drop something, pick it up.

Always use proper storage areas.

Do not store equipment or other supplies in walking or working areas.
3006
Prevention: Maintenance

Make sure that rugs and mats are attached to the floor with the right backing.

If a rug bulges or bunches, stretch it out and lay it down flat.

If the edges of a rug or mat curl:
- Re-anchor these edges to the floor
- Remove the rug or mat

Report to your supervisor immediately if you notice floors with:
- Protruding nails
- Splinters
- Cracks
- Loose boards
- Similar tripping hazards
<table>
<thead>
<tr>
<th>Prevention: Ankle-Biters and Knee-Knockers</th>
</tr>
</thead>
</table>

If objects stick into a pathway at knee or ankle height:
- Move these objects, if possible
- Mark these objects with warning signs and guards, if they cannot be moved
- Notify a supervisor or maintenance
Prevention: Cords and Cables

Arrange equipment so that permanent cords and cables do not need to be placed across pathways.

If a temporary cord or cable **must** cross a pathway:
- Tape the cord or cable to the floor
- Use a caution sign to alert people of the hazard
OSHA standards do not address:
- Changes in floor level
- Lighting
- Carrying loads
- Paying attention

Nevertheless, these are important for preventing trips.

Let's take a closer look at each.
<table>
<thead>
<tr>
<th>Prevention: Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes, the level of a floor changes.</td>
</tr>
<tr>
<td>For example, there may be a few steps up to a raised platform. Or, there may be a few steps down to a sunken waiting area.</td>
</tr>
<tr>
<td>These level changes:</td>
</tr>
<tr>
<td>- Are a tripping hazard</td>
</tr>
<tr>
<td>- Should be used as little as possible</td>
</tr>
<tr>
<td>When the level of a floor <strong>must</strong> change, it is best to use a ramp between levels. Steps should not be used.</td>
</tr>
<tr>
<td>Changes in floor level should be marked with bright paint or edge strips.</td>
</tr>
</tbody>
</table>
3011
Prevention: Lighting

Walking and working areas should have even and adequate lighting.
This can help workers spot possible tripping hazards.
Burnt-out bulbs should be reported and replaced promptly.

[IMAGE: 3011.jpg]
<table>
<thead>
<tr>
<th>Prevention: Loads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whenever possible, push or pull loads using a device with wheels.</td>
</tr>
<tr>
<td>If you must carry a load in your arms, make sure that you can see over the load.</td>
</tr>
</tbody>
</table>
### Prevention: Attention

Remember: Watching where you’re going can help prevent slips.

Paying attention can help protect you from trips, too.

Watch your path. You may avoid many tripping hazards.

Always use caution while walking over or near drainage grates. Your heel could get caught in grate, causing a fall.

**FLASH ANIMATION: 3013.SWF/FLA**
### Review

Which of the following is a tripping hazard?

- a. Ice on a sidewalk
- b. Sand on a sidewalk
- c. Cracks in a sidewalk
- d. Grease on a sidewalk

**MULTIPLE CHOICE INTERACTION**

Correct answer: C

Feedback for A: Incorrect. Ice, sand, and grease are slipping hazards. The correct answer is C. Cracks in a sidewalk are a tripping hazard.

Feedback for B: Incorrect. Ice, sand, and grease are slipping hazards. The correct answer is C. Cracks in a sidewalk are a tripping hazard.

Feedback for C: Correct. Ice, sand, and grease are slipping hazards. Cracks in a sidewalk are a tripping hazard.

Feedback for D: Incorrect. Ice, sand, and grease are slipping hazards. The correct answer is C. Cracks in a sidewalk are a tripping hazard.
<table>
<thead>
<tr>
<th>Cords and cables must never cross pathways.</th>
<th>TRUE / FALSE INTERACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. True</td>
<td>Correct answer: B</td>
</tr>
<tr>
<td>b. False</td>
<td>Feedback for A: Incorrect. Arrange equipment so that <em>permanent</em> cords and cables do not need to be placed across pathways. If a <em>temporary</em> cord or cable must cross a pathway, tape it to the floor.</td>
</tr>
<tr>
<td></td>
<td>Feedback for B: Correct. Arrange equipment so that <em>permanent</em> cords and cables do not need to be placed across pathways. If a <em>temporary</em> cord or cable must cross a pathway, tape it to the floor.</td>
</tr>
</tbody>
</table>
Summary

You have completed the lesson on causes and prevention of trips.

Remember:

- Trips happen because of loss of footing.
  - Loss of footing can happen because of:
    - Clutter or objects underfoot
    - Objects at knee or ankle level
    - Defects in walking surfaces
    - Uneven walking surfaces or changes in floor level
    - Poor view of the walking surface, due to poor lighting or carrying a load
  - To prevent trips:
    - Keep walkways free of clutter.
    - Maintain walking surfaces.
    - Protect against ankle-biters and knee-knockers.
    - Remove cords and cables from the floor.
    - Mark changes in floor level.
    - Ensure adequate lighting of walking and working areas.
    - Avoid carrying large loads.
    - Pay attention to where you are walking.
Lesson 4: Falls: Risky Situations, Prevention, and Falling Safely

Introduction & Objectives

Welcome to the lesson on:
- Situations associated with falls-to-below
- Preventing falls-to-below
- Guarding against injury during a foot-level fall

After completing this lesson, you should be able to:
- Identify situations in which a fall-to-below could occur
- Recognize strategies for preventing falls from stairs, ladders, and floor openings
- List methods for guarding against injury during a foot-level fall
### 4002

**Falls**

You may think that dangerous falls are not a risk for you. You may think falls only happen to people who climb ladders or work on scaffolding.

In fact, most falls in the workplace are foot-level falls.
Foot-Level Falls

In a foot-level fall, a person slips or trips on a walking or standing surface.

This results in a short fall.

Because of the short distance involved, a foot-level fall may seem less dangerous than a fall-to-below (a fall from a height).

In fact, foot-level falls can be disabling. They can even be fatal.
Falls-to-Below: Danger

Falls-to-below carry even higher risk of injury or death. This is due to the distance of the fall.
Falls-to-Below: Prevention

Falls-to-below can happen when a person slips, trips, or loses balance while:
- Walking up or down stairs
- Working above ground level
- Working at or around a floor opening
- Not using the proper safety equipment

Let’s take a closer look at preventive strategies for each type of fall.

Preventing falls-to-below:
- Stairs
- Ladders
- Floor openings
According to OSHA standards for walking and working surfaces, stairs with four or more steps must have standard handrails.

**When walking up or down a staircase, be sure to use the handrails, from start to finish.**

In addition:

- Do not carry loads up or down stairs. Loads prevent use of the handrail and can block your vision.
- Do not rush.
- Take one step at a time. Keep your weight on your back leg until your front foot is on the next step. This helps maintain your center of balance.
- Look out for tripping hazards.
- Check for slipping hazards by testing slick-looking stairs with a tap of the foot.
- Be especially careful if the stairway is not well lit.
- Report or correct potential hazards (slippery stairs, clutter, poor lighting) immediately.
Preventing Falls-to-Below: Ladders

OSHA requires safeguards for workers who use ladders.

These safeguards are:

- Place the ladder securely
- Always face the ladder when climbing up or down
- Never splice two short ladders to make a single long ladder
- Never use the top of a stepladder as a step
- Keep both hands on the ladder when climbing up or down.
- Inspect ladders prior to use to ensure that there are no defects
- Always remove from service any ladder that appears to be damaged
To prevent falls-to-below, OSHA requires protection for floor openings.

For stairway openings, railings must be placed on all exposed sides (except the entrance).

For floor holes that a person could accidentally walk into, the hole must be guarded by one of the following:

- A standard railing with toe-board
- A floor-hole cover

For certain elevated areas (platforms, runways), railings must be placed on all four sides. This is the case if:

- The area is four feet or more above the surrounding floor.
- The area is above or adjacent to dangerous equipment.
Falling Safely

It is difficult to prevent injury during a **fall-to-below**.

However, certain methods can help guard against injury during a **foot-level fall**.

If you slip or trip and start to fall, try:
- Rolling with the fall
- Spotting the fall
- Shouting
- Slapping the ground
- Tossing the load

Let’s take a closer look at each.
Falling Safely: Rolling with the Fall

If you slip or trip and start to fall forward, twist your body.

Roll onto the soft tissues of the buttocks, thighs, and large back muscles.

This method:
- Cushions your fall
- Protects your spine and head from injury

When rolling with the fall, always relax as much as possible.
Falling Safely: Spotting the Fall

If you slip or trip and start to fall **backward**, turn your head quickly to look at the spot where your body will hit the ground.

Your body will follow your head, turning to the side.

This method can help:
- Protect the spine
- Protect the head
- Reduce whiplash

FLASH ANIMATION: 4011.SWF/FLA

**To help guard against injury during a foot-level fall:**

- Roll with the fall
- **Spot** the fall
- Shout
- Slap the ground
- Toss the load
Falling Safely: Shouting

Shouting releases air from the lungs.

This reduces the internal compression and injury that can happen when you hit the ground while holding your breath.
Falling Safely: Slapping the Ground

“Stiff-arming” (glossary) the floor when you fall can dislocate the wrist, elbow, or shoulder.

“Slap” the floor instead. Just before you hit the floor, slap at the floor with an extended palm and inner forearm.

This method can help:
- Spread the impact of the fall
- Reduce the force of the fall
- Protect against joint dislocation

FLASH ANIMATION: 4013.SWF/FLA

To help guard against injury during a foot-level fall:
- Roll with the fall
- Spot the fall
- Shout
- Slap the ground
- Toss the load
Falling Safely: Tossing the Load

If you start to fall while carrying a load, worry about yourself, not the load.

Toss the load.

This leaves your muscles free to roll with the fall, spot the fall, or slap the ground.

To help guard against injury during a foot-level fall:
- Roll with the fall
- Spot the fall
- Shout
- Slap the ground
- Toss the load
### Review

Guard against falling down stairs by:

- a. Keeping both hands free for balance
- b. Not carrying loads when climbing stairs
- c. Taking the steps two at a time if the steps are short
- d. All of the above
- e. None of the above

**MULTIPLE CHOICE INTERACTION**

Correct answer: B

Feedback for A: Incorrect. When walking up or down stairs, do not keep the hands free. Use the handrail. The correct answer is B. Do not carry loads when climbing stairs. Carrying a load prevents use of the handrail and can block your vision.

Feedback for B: Correct. Do not carry loads when climbing stairs. Carrying a load prevents use of the handrail and can block your vision.

Feedback for C: Incorrect. When climbing up or down stairs, take the steps one at a time. The correct answer is B. Do not carry loads when climbing stairs. Carrying a load prevents use of the handrail and can block your vision.

Feedback for D: Incorrect. When walking up or down stairs, take the steps one at a time. Use the handrail. The correct answer is B. Do not carry loads when climbing stairs. Carrying a load prevents use of the handrail and can block your vision.

Feedback for E: Incorrect. The correct answer is B. Do not carry loads when climbing stairs. Carrying a load prevents use of the handrail and can block your vision.
If you slip or trip and start to fall forward, twist your body. Cushion the fall by rolling onto your buttocks, thighs, and large back muscles.

This is a falling method known as:
   a. Spotting the fall
   b. Tossing the load
   c. Rolling with the fall
   d. Slapping the ground

MULTIPLE CHOICE INTERACTION

Correct answer: C

Feedback for A: Incorrect. The correct answer is C. The method described is rolling with the fall.

Feedback for B: Incorrect. The correct answer is C. The method described is rolling with the fall.

Feedback for C: Correct. The method described is rolling with the fall.

Feedback for D: Incorrect. The correct answer is C. The method described is rolling with the fall.
### Summary

You have completed the lesson on falls.

Remember:
- Falls-to-below have a high risk of injury or death.
- Follow OSHA guidelines and other safety measures to prevent falls from stairs, ladders, and floor openings.
- If you slip or trip and start to fall in a foot-level situation, guard against injury by:
  - Rolling with the fall
  - Spotting the fall
  - Shouting
  - Slapping the ground
  - Tossing the load
<table>
<thead>
<tr>
<th>#</th>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>friction</td>
<td>the resistance when one body is moved against another</td>
</tr>
<tr>
<td>2</td>
<td>fall-to-below</td>
<td>a fall from a height</td>
</tr>
<tr>
<td>3</td>
<td>abate</td>
<td>to make less active or intense</td>
</tr>
<tr>
<td>4</td>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>5</td>
<td>acid-etching</td>
<td>the use of a strong acid to alter the surface of a material</td>
</tr>
<tr>
<td></td>
<td>sanitary</td>
<td>free from filth and pathogens</td>
</tr>
<tr>
<td>6</td>
<td>neoprene</td>
<td>a synthetic rubber with good resistance to oil, chemical, and flame</td>
</tr>
<tr>
<td>7</td>
<td>protrude</td>
<td>to stick out</td>
</tr>
<tr>
<td>8</td>
<td>stiff-arm</td>
<td>to make contact with the hand, with the arm straight and elbow locked</td>
</tr>
</tbody>
</table>
[Preventing Slips, Trips, and Falls in the Workplace]

**Pre-Assessment**

1. Slips are caused by all of the following EXCEPT:
   a. Loss of footing
   b. Loss of friction
   c. Loss of traction
   d. Loss of resistance

   Correct Answer: A
   Answer Rationale: Friction, traction, and resistance are similar terms used in reference to slips. Trips are caused by loss of footing.

2. You are walking down the hall. You notice a puddle of water on the floor. The puddle goes all the way across the hall. To cross the puddle safely, you should do all of the following EXCEPT:
   a. Keep both hands free, to help keep your balance.
   b. Point your toes outward, to give a more stable base of support for keeping your balance.
   c. Take long steps (approximately twice your foot length), to cross the slippery area as efficiently as possible.
   d. Take any turns gradually, to avoid creating a sideways force that could cause you to lose your balance and fall.

   Correct Answer: C
   Answer Rationale: On a slippery floor, take small steps (shorter than your foot length). This helps keep your feet under your center of balance.

3. Under OSHA standards, all floors in work areas must be kept free from protruding nails, splinters, holes, or loose boards.
   a. True
   b. False

   Correct Answer: A
   Answer Rationale: This statement is true.

4. Slapping the ground is a safe-falling technique that:
   a. Involves stiff-arming the floor just before impact
   b. Reduces the force of a fall by spreading the impact
   c. Can protect the spine and head, but is likely to cause wrist, elbow, or shoulder dislocation
   d. All of these answers
   e. None of these answers
Correct Answer: B
Answer Rationale: Slapping at the floor with an extended palm and inner forearm reduces the force of a fall by spreading the impact of the fall. This method protects against joint dislocation by preventing a “stiff-arm” approach to the floor.

5. Foot-level falls can be fatal.
   a. True
   b. False

Correct Answer: True
Answer Rationale: Because of the short distance involved, a foot-level fall may not seem very dangerous. In fact, foot-level falls can be disabling. They can even be fatal.

6. Lack of friction causes a _____.
   a. Slip
   b. Trip
   c. Fall
   d. All of these

Correct answer: A
Answer rationale: Lack of friction causes a slip.

7. You are developing a series of slogans. These slogans will encourage employees to reduce slipping and tripping hazards in the workplace. Which of the following slogans reflect(s) OSHA standards for walking and working surfaces?
   a. Report poor lighting!
   b. Keep corridors clear of chaos-creators!
   c. Watch where you’re walking, and walk where you’re watching!
   d. All of these slogans reflect OSHA standards.
   e. None of these slogans reflects OSHA standards.

Correct answer: B
Answer rationale: All of these slogans are important for preventing slips, trips, and falls. However, OSHA standards do not specifically address lighting levels or paying attention. OSHA standards do require workplaces to keep aisles and passageways clear of obstructions that could create a hazard.

8. Employee footwear has nothing to do with preventing slips, trips, and falls in the workplace.
   a. True
   b. False

Correct answer: B
Rationale: Proper footwear is critical for preventing slips, trips, and falls. Low-heel, non-skid footwear can help prevent slips. Footwear with appropriate ankle support can help guard against trips on uneven walking surfaces.

9. Which of the following is (are) a tripping hazard?
   a. A frayed rug
   b. Cracked concrete
   c. An electrical cable crossing a pathway
   d. All of these answers
   e. None of these answers

Correct answer: D
Rationale: All of these items are tripping hazards.

10. Which of the following statements is (are) true?
    a. Changes in floor level are a tripping hazard.
    b. Bright paint or edge strips should be used to mark changes in floor level.
    c. When there is a change in floor level, ramps should be used, rather than steps.
    d. All of these statements are true.
    e. None of these statements is true.

Correct answer: D
Rationale: Changes in floor level are a tripping hazard. They should be used as little as possible. If a change in floor level is absolutely necessary, ramps should be used. The change in floor level should be marked with bright paint or edge strips.

11. Carrying a load is a tripping hazard when:
    a. The load is carried up or down stairs.
    b. The person carrying the load cannot see over it.
    c. Both of these are correct.
    d. Neither of these is correct.

Correct answer: C
Rationale: Carrying a load is a tripping hazard on stairs. It is also a tripping hazard if the person cannot see over the load.

12. Which of the following is an accurate description?
    a. Shouting is a safe falling technique that relies on calling others to help the person who is falling.
    b. Spotting the fall is a safe falling technique that relies on “spotting” high-risk areas, and being prepared for falls in these areas.
    c. Rolling with the fall is a safe falling technique that relies on the soft tissues of the buttocks, thighs, and large back muscles to cushion the fall.
    d. All of these are accurate descriptions.
    e. None of these is an accurate description.


Correct answer: C
Rationale: Rolling with the fall involves twisting the body to roll onto the soft tissues of the buttocks, thighs, and large back muscles. This cushions the fall and protects the spine and head.
Final Exam

1. Slips happen because of friction between the walking surface and a person’s feet. Friction causes the feet to slide too far out from under the body’s center of balance. This results in a loss of balance and a possible fall.
   A. True
   B. False

Correct Answer: False
Answer Rationale: Lack of friction causes a slip.

2. OSHA requires all of the following EXCEPT:
   A. All workplace floors must be kept free from protruding nails, splinters, holes, or loose boards.
   B. Hallways must have an adequate amount of light.
   C. All exits must be kept free of obstruction.
   D. Work areas must be kept clean, orderly, and sanitary.
   E. All of these statements are true.

Correct Answer: Hallways must have an adequate amount of light.
Answer Rationale: OSHA recommends that hallways have an adequate amount of light, but this is not a requirement.

3. ______ can help prevent slips on a tiled floor.
   A. High heels
   B. Shoes with metal cleats
   C. Shoes with non-skid rubber soles
   D. All of these answers
   E. None of these answers

Correct Answer: Shoes with non-skid rubber soles
Answer Rationale: Both high heels and shoes with metal cleats are slip hazards. Shoes with non-skid rubber soles decrease the risk of slips.

4. If you must cross a puddle of water, you should do all of the following EXCEPT:
   A. Keep your hands in your pockets to help keep your balance
   B. Point your toes outward to give a more stable base of support for keeping your balance
   C. Take short steps
   D. You should do all of the above
Correct Answer: Keep your hands in your pockets to help keep balance
Answer Rationale: On a slippery floor, you need to keep your hands free to help keep your balance.

5. A corridor is a proper storage area, as long as all stored materials are pushed up against the wall.
   A. True
   B. False

Correct Answer: False
Answer Rationale: Materials should be stored in designated areas. Equipment and other supplies should not be stored in walking or working areas.

6. Which of the following statements is (are) true?
   A. Rugs can be tripping hazards if they bulge or bunch.
   B. Only falls-to-below can be fatal.
   C. Slips, trips, and falls cause 50% of all injuries in the United States.
   D. All of these statements are true.
   E. None of these statements are true.

Correct Answer: Rugs can be tripping hazards if they bulge or bunch.
Answer Rationale: Rugs can cause slips or trips if they are not properly installed and maintained. Foot-level falls can also be fatal. Slips, trips, and falls account for 10% of all injuries in the United States.

7. Changes in floor level are a tripping hazard. The risk of tripping can be decreased by using:
   A. Ramps (instead of steps) between levels
   B. Steps (instead of ramps) between levels
   C. Either of these answers
   D. Neither of these answers

Correct Answer: Ramps (instead of steps) between levels
Answer Rationale: Changes in floor level should be used as little as possible. When the level of the floor must change, ramps should be used instead of steps.

8. OSHA standards allow:
   A. Using the top of a stepladder as a step
   B. Facing away from the ladder when climbing up or down
   C. Splicing two short ladders together to make one long ladder
D. Keeping both hands on the ladder when climbing up or down
E. All of the above

Correct Answer: Keeping both hands on the ladder when climbing up or down
Answer Rationale: OSHA requires both hands on a ladder when climbing up or down. All of the other practices listed are forbidden by OSHA.

9. Spotting the fall is a safe-falling technique that can:
   A. Reduce whiplash to the neck.
   B. Protect the spine from impact.
   C. Prevent injury to the head.
   D. All of these are correct.
   E. None of these is correct.

Correct Answer: All of these are correct.
Answer Rationale: Spotting the fall can guard against injury in all of these ways.

10. To prevent a fall when climbing stairs, keep your weight on your back leg until your front foot is on the next step.
    A. True
    B. False

Correct Answer: True
Answer Rationale: Keeping your weight on your back leg until your front foot is on the next step helps maintain your center of balance.