

Before you begin

- Identify any slip/trip-related incidents or near misses within your organization for the past five years.
- Identify any locations within your facility where people frequently spill or drop water or other materials.
- Review the OSHA 29CFR 1910 Subpart D Walking Working Surfaces regulations.



Introduction

Slips, trips, and falls represent the number one preventable cause of injury and death in the workplace. According to OSHA, slips, trips, and falls are the leading cause of injury and accidents for General Industry. Falls in the workplace cause more than 11,000 injuries in Ohio each year according to Ohio BWC data.

Definitions

Walking Working Surface: any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.

Fall: moving too far off your center of balance.

Slip: lose traction with surface – feet forward, person falls back.

Trip: contact with fixed objects, uneven surfaces, objects in path – feet stop, forward motion continues.

Discussion

Nearly all slips or falls have one or more of these factors as a cause: 1) walking surfaces; 2) surface contaminants; 3) footwear; and 4) walking style of the person.

Which of these four factors are controllable?

- **Factors 1 and 2:** Most experts believe employers have the most control over walking surfaces and surface contaminants.
- **Factor 3:** Employers can have some control over their employees' footwear by specifying types of acceptable footwear to wear on the job. Typically, the employee must provide this footwear. OSHA requires the employer furnish any specialized footwear (e.g., chemical resistant boots) needed on the job.
- **Factor 4:** How a person walks is much more difficult to control. You can influence walking behavior by making people aware through signs that the walking surface may not be what they expect it to be. People who are aware of a wet or icy walkway naturally take smaller steps and try to ensure their torso stays balanced over their feet.

What types of measures can employers take to improve walking surfaces within their facility? Answers include:

- Housekeeping and hygiene are the easiest, and sometimes the most difficult, to control. It is easy and cheap to clean up a spill, but sometimes very difficult for people to recognize the hazard and take action to fix it.
- Engineering controls involve thinking ahead when building to decide where slip/trip hazards may occur. Putting the right flooring down early or changing an existing floor can help reduce the chance of a fall.

What are some examples of objects or situations that present a tripping hazard? Answers include:

- Obstructions such as extension cords, power cords, hoses, boxes, and parts projecting from machines.
- Employees carrying boxes or other objects that restrict vision.
- Uneven or damaged flooring, floor holes, and poorly applied patches.

Other less obvious tripping hazards include:

- Cracks in concrete and uneven or warped floor- boards.
- Loose or poorly fitted grates over pits.
- Protruding nails, splinters, and loose boards, which can create an uneven walking surface.
- Carpets and mats which may bunch, fold, or slip under foot if not designed for the location and exposures encountered.

What are some examples of objects or situations that present a slipping hazard?

- Snow, ice, and liquids, such as water.
- Liquid escapes from production operations, such as hydraulic oil and chemicals.

Other less obvious slipping hazards include:

- Highly polished floor surfaces.
- Floor surfaces where slip prevention materials may have worn away.
- Worn or poorly maintained floor surfaces.
- Transitions from one type of floor surface to another, such as carpet to tile.

What are the most beneficial ways to address these walking working surface hazards?

- Engineer the workplace so that materials and spills do not intrude on a walking surface.
- Change the flooring surface to a slip resistance material.
- Establish operating procedures where employees accept responsibility for removing hazards.
- Establish walkway clear zones (i.e., paint walk- way boundaries on floor in industrial areas).
- Keep aisles and walkways free of all materials.
- Clean up liquids when spills occur.
- Do not allow spilled material to soak into the floor surface.
- Report burned out or missing lights.
- Report uneven or broken pavement, sidewalks, or handrails.
- Use grates, raised platforms, or mats in traditionally wet production areas.
- Consider slip resistant footwear. Many organizations provide slip resistant footwear for different types of job conditions.

Conclusion

While slips, trips, and falls lead to many injuries, there are often many ways to avoid these hazards. When you see the hazards, fix them. Whether that is cleaning up a mess that is yours or not, talking to employees about housekeeping, or talking to management about repairs, prevention is key to ensuring everyone goes home safe.

Group activity

Have the group conduct an inspection for the work area to determine how many hazards they can find that could lead to slips or falls. Develop a process to inspect, report, and correct or repair any hazardous conditions.

Resources

[29 CFR 1910 Subpart D Walking-Working Surfaces](#)

[OSHA Fact Sheet](#)

[NIOSH Falls in the Workplace](#)