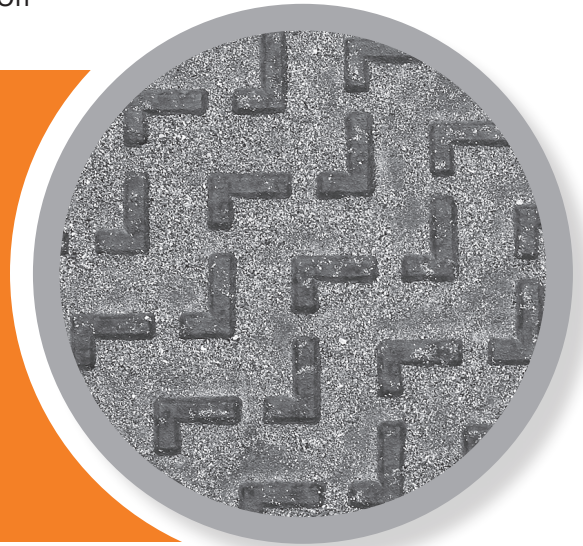


# Walking and work surface safety

By John Orr

## 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. Do your co-workers promptly take action to remove the hazard?
- Have a flip chart, chalkboard or white board available to capture discussion points.
- Use a question-and-answer format to encourage participation and involve the group in discussion.



## Slips and falls

Falls represent the number one preventable cause of injury and death in the workplace. More than a million people suffer injuries and more than 16,000 people die as a result of falls in any given year. Obvious injuries occur from falls from six feet or more, but about 60 percent of all falls happen at the same level (e.g. tripping).

Organizations that invite the public onto their property also expose themselves to an increased risk of slips and falls.

- Ask group members to raise their hands if they have slipped or fallen (in any location) in the past three months, six months and a year.
- For those who raised their hands, ask if they knew what caused their fall.
- Further ask, if the reason was obvious, and what they did to prevent it from happening to another person.

## Fall factors

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.

- Ask the group members of these factors, which would they consider controllable?
  - Answers 1 and 2: Most experts believe employers have the most control over walking surfaces and surface contaminants.
  - Answer 3: Employers can have some control

over their employees' footwear by specifying types of acceptable footwear to wear on the job. Generally, the employee must provide this footwear. OSHA requires the employer furnish any specialized footwear (e.g., chemical resistant boots) needed on the job.

- Answer 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 will naturally take smaller steps and try to ensure their torso stays balanced over their feet.
- Ask the group what types of measures can employers take to improve walking surfaces within their store or production plant. 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 floor down early or modifying an existing floor can help reduce the chance of a fall. These measures, although permanent, can be expensive.

- Ask the group what are some examples of objects or situations that present a tripping hazard. Answers include:
  - Obstructions, such as extension cords, power cords, hoses, boxes, other materials 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 floorboards;
  - Loose or poorly fitted grates over pits;
  - Protruding nails, splinters and loose boards, which can create an uneven walking surface;
  - Carpets and mats that are not fixed, which may bunch, fold or slip under foot if not designed for the location and exposures encountered.

### Hazards and prevention

Management attention may be necessary to get the proper tools, manpower or equipment to fix these types of tripping hazards.

- Ask the group what are the most logical ways to remove these hazards. Answer: Be sure employees:
  - Keep aisles and walkways free of all materials;
  - Remove materials from walkways;
  - Report burned out or missing lights;
  - Report uneven or broken pavement, sidewalks or handrails.

In addition, employers should:

- Establish operating procedures where employees accept responsibility for removing hazards;
- Establish walkway clear zones (i.e., paint walkway boundaries on floor in industrial areas).

Slip Prevention: What are examples of slip causes?

- Examples include, but are not be limited to:
  - Snow, ice and liquids, such as water;
  - Liquid escapes from production operations, such as hydraulic oil and chemicals.
- Other slip 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 can you do to prevent slips on floor surfaces?
  - Keep the area clean, pick up liquids when spills occur, and do not allow spilled material to permeate the floor surface.

- In industrial applications where different chemicals are used, be sure to follow company policy when cleaning and disposing of spilled materials.
- Using deck brushes and aggressive cleaning are preferable to mopping.
- If you cannot prevent spills, management should consider other ways to increase traction.
  - The ideal way to prevent spills is to engineer the workplace so that spilled liquids do not intrude on a walking surface.
  - Use mats or other flooring materials designed for the location and operations being supported.
  - Use grates or raised platforms in traditionally wet production areas.
  - Consider footwear. Many organizations provide slip resistant footwear for different types of jobs.
- As another prevention technique, consider changing the flooring surface.

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BWC always strives to improve the *Safety Leader's Discussion Guide*. Your feedback can help. Please send your comments via e-mail to **Safety@ohiobwc.com**.

### References

#### Regulations

- 29 CFR 1910.22 Walking-Working Surfaces

#### BWC resources ( ohiobwc.com)

- Online Training Course: Preventing Slips, Trips and Falls
- The BWC Video Library has a number of videos on slips, trips and falls available for loan to Ohio employers.

#### Web sites

- Youth Worker Safety in Restaurants eTool: Clean-up (Occupational Safety and Health Administration): [www.osha.gov/SLTC/youth/restaurant/cleanup\\_slips.html](http://www.osha.gov/SLTC/youth/restaurant/cleanup_slips.html)
- Preventing Slips and Trips: Script (National Ag Safety Database): <http://nasdonline.org/document/309/d000110/preventing-slips-and-trips-script.html>
- Preventing slips and trips at work (Health and Safety Executive, United Kingdom): [www.hse.gov.uk/pubns/indg225.pdf](http://www.hse.gov.uk/pubns/indg225.pdf)