

A 4-phase strategy to prevent same level falls and ensure OHS compliance

Slips, trips and falls:

- Cause injuries to over 44,000 Canadian workers per year (CCOHS);
- Account for 17% of all lost-time injuries (Assoc. of Workers' Compensation Boards of Canada);
- Cost an average of \$3,500 in direct workers comp costs and up to \$21,000 in indirect costs like replacing workers, fixing equipment and legal fees.

In everyday language, “fall” is a generic verb describing the action of plunging downward as a result of losing balance. But workplace fall prevention and OHS compliance is about protecting against 3 different kinds of falls:



Slips occur when a person's foot or feet lose grip with the surface they're walking or standing on. Slip hazards include ice, oil and other liquids that make the ground wet, banana peels and anything else that reduces friction between the feet and ground or surface.



Trips occur when a person stumbles on or over an object. Trip hazards include objects that somebody can stumble over like holes or tools in a walkway or conditions that make stumbles over objects more likely such as loose steps, poor lighting or not paying attention to where you're walking.



Falls are vertical plunges from a surface above ground level like a platform, scaffold, roof or ladder.

SAME LEVEL VS. VERTICAL FALLS

Classifying fall hazards into separate groups makes them easier to control:

- **Same level or horizontal falls**, which account for 66% of fall injuries, include both slips and trips.
- **Vertical falls from elevation** account for the remaining 34%.

While classification of falls into separate groups makes them easier to identify, assess and control, be aware that in the real world, horizontal falls often lead to vertical falls. Example: A worker falls off a roof as a result of tripping on an extension cord. Although this game plan deals with same level falls, you follow the same 4-Phase approach for preventing vertical falls.

PHASE 1. IDENTIFYING SAME LEVEL FALL HAZARDS

The first phase is to identify same level fall hazards in your workplace using methods such as:

- Inspecting the workplace.
- Talking to workers and supervisors at the site.
- Reviewing key workplace records that provide information about fall injuries and incidents like incident data and reports, inspection results, first aid records, workers' comp claims, refusal investigation reports, etc..
- Conducting a job hazard analysis of jobs performed by workers at the site.



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Focus on high risk areas where slips and trips are most likely to happen, such as walkways and stairs, locker rooms, washrooms, loading docks and ramps and parking lots. When identifying same level fall hazards, consider 2 sets of factors:

A. General Risk Factors

The 5 general risk factors for fall and other hazards are described by the acronym PEMEP:

“P” is for People

What do people at your workplace do (or not do) to create slips and trips hazards? Examples:

- People are constantly in a rush and run rather than walk down stairways.
- People use back ways containing trip hazards as a shortcut.

“E” is for Equipment

Do the tools, equipment and furnishings used in your workplace create same level fall hazards? Examples:

- Power tools with extension cords may create trip hazards.
- Machines that emit oil or lubricants may create slip hazards.

“M” is for Materials

Do the materials and products used in your workplace create same level fall hazards? Example: Sawdust and wood chunks may create slip and trip hazards at timber mills.

“E” is for Environment

Are the physical surroundings where work is done a risk factor for trip and slip hazards fall hazards? Examples:

- Outdoor work in the cold and wet.
- Work in a dimly lit environment.

“P” is for Process

Do the processes or methods of doing work create risk of slips and trips? Example: Operations requiring workers to carry large and bulky objects down stairs.

B. Specific Risk Factors

Specific risk factors for slips and trips commonly include:

- Wet or slippery walking surfaces covered by grease, liquids, ice, oil, dust or fine powders.
- Uneven walking surfaces, holes, changes in level, broken or loose floor tiles, defective or wrinkled carpet or uneven steps/thresholds.
- Damage to interior or exterior walking surfaces such as cracks, holes or depressions.
- Obstructions or accumulation of objects in walkways such as cords, cables, boxes or debris.

PHASE 2. ASSESSING SAME LEVEL FALL HAZARDS

After you identify hazards, you must decide how to address them (and how quickly). Options:

- Eliminate them completely.
- Reduce them to manageable levels.
- Ignore them.

A. Look to Legal and Other Standards

First, use established benchmarks to assess what must be done to control the hazard, including (in order of importance):

- OHS and other applicable laws.
- CSA, ANSI, ASTM and other voluntary standards.
- Industry standards and best practices.
- Regulatory guidance.
- Your own OHS policies and programs.



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B. Prioritize

Compare the identified hazard to other hazards at your workplace and prioritize which to address first based not only on the urgency of the hazard but how difficult it is to control. Example: During an inspection you identify a slip hazard that can be corrected with a rubber mat as well as an airborne contaminant that requires a major new ventilation system. The slip hazard is less severe. But it can and should be corrected immediately and not wait until after the ventilation system is in place.

PHASE 3. CONTROLLING SAME LEVEL FALL HAZARDS

The third phase of same level fall prevention is to select and implement methods to control the same level fall hazards you identify.

A. Hazard Elimination v. Hazard Control

Rule of Thumb: Completely eliminating a hazard is the preferred approach. But control is a legally acceptable second choice where elimination is “impracticable” or not “reasonably practicable.” Example: Requiring slip-resistant shoes where resurfacing a slippery walkway is cost-prohibitive.

B. Where the Control Is Effected

Rule of Thumb: The closer the control is to the hazard source and the farthest it is from the worker, the more desirable the control is. This approach groups controls into 3 classes:

At the Source

At the source controls work directly on the hazard. Example: Resurfacing a bumpy walkway so that workers don't trip in floor holes.

Along the Path

Along the path controls work between the source and the worker and stop the hazard before it can do harm. Example: Posting a barricade or sign warning workers of holes in the floor.

At the Worker

At the worker controls are the last line of defence that allow the hazard to travel to workers but shield them from its harmful effects. Example: Knee pads, hard hats and other PPE that cushion a worker's fall in case they trip over a floor hole.

C. Type of Control

Rule of Thumb: Follow the so-called hierarchy of controls:

Engineering Controls

Engineering controls are machines, equipment, systems, and other physical or mechanical solutions that do something to actually change the work environment or act directly on the hazard. Engineering controls for same level falls include:

- Using slip-proof surfaces on floors and walkways.
- Installing railways on aisles and staircases.
- Lighting walkways.
- Widening narrow aisles.
- Securely covering holes in floors and surfaces.

Administrative or Work Controls

Where engineering controls are “impracticable” or not “reasonably practicable,” you can manage the hazard by controlling how the work is actually carried out. The most important work and administrative controls for slips and trips are regular inspection and good housekeeping to keep floors, stairways and other walking surfaces dry and free of snow and ice and things people might trip over like garbage, extension cords, wires, tools, etc.



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- Adopting a slips, trips and falls prevention policy.
- Making sure workers pay attention to where they walk.
- Slips and trips awareness training.
- Safe work procedures for operations involving slips and trips risks.
- Procedures for immediate repair of slip and trip hazards.
- Regular inspections of walking surfaces.
- Posting signs or infographics urging workers to use caution on walkways.
- Not scheduling outdoor work during wet or inclement weather.

PPE

PPE is the control of last resort and should generally be used to supplement rather than replace engineering and work controls. PPE and protective clothing for same level falls include:

- Shoes with slip-resistant soles that fit tightly and are kept tied at all times;
- Hard hats, knee, shin and elbow pads and other equipment to cushion any falls that occur.
- Pants that fit snugly with no trailing ends or loose flaps; and

PHASE 4. MONITORING SAME LEVEL FALL HAZARD CONTROLS

After implementing fall hazard controls, you must continuously monitor them to ensure they're working right. To do that, you must revisit your hazard identification, assessment and controls at least once a year and immediately in response to indications that they may no longer be effective or responsive to actual workplace conditions, including after:

- Slip and trip injuries or near misses.
- Workers complaints, JHSC recommendations or work refusals.
- Major changes to operations, equipment, personnel or other conditions on which your previous hazard identification and assessment was based.