
Slips, trips and falls

OHS information for employers and workers

This resource discusses slips, trips and falls, explains why they happen, and explores ways they can be prevented.

KEY INFORMATION

- Slips, trips and falls are serious dangerous hazards that can be prevented.
 - To reduce the number of slips, trips and falls at your workplace, make sure you understand why they happen and use properly designed workspaces and work methods.
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Understanding slips, trips and falls

It's amazing that we don't slip, trip or fall more often than we do. As our leg swings forward each time we take a step, our toe rushes past the ground at a speed of 14 to 18 kilometres per hour and is often less than one centimetre above it. And as we land our heel, it normally slips forward along the ground for a distance of up to two centimetres without causing us to lose our balance.

To reduce the number of slips, trips and falls at your workplace, it's important to understand why they happen and use properly designed workspaces and work methods.

Slips

Slips most commonly occur when your heel strikes the ground and you transfer your body weight to the lead foot. If this foot slips out from under you, you lose your support base and fall. Although you may often manage to recover from slips, you can easily strain muscles while trying to regain your balance. Many lower back injuries occur when a person carrying or lifting an object tries to recover from a slip or loss of balance.

To prevent slips, workers should:

- Wear appropriate footwear and keep walking surfaces clean. Using high-resistance surfaces as the answer to every slipping problem should be avoided — they can increase the potential for trips.
- Walking surfaces should be suitable for the pushing, pulling and carrying tasks performed on them. They should provide adequate foot grip but allow wheels to roll freely. Rough, deeply textured surfaces may reduce the potential for slips, but increase the potential for trips.

Trips

Trips are caused when your forward-moving leg suddenly and unexpectedly stops. Your body continues its forward motion but hasn't a foot on which to land, so you fall.

Abrupt changes in the height of a walking surface present a tripping hazard, even if the change is as little as one centimetre. Making the transition from a low-slip resistance surface (such as a sand-covered loading ramp) to a high-slip resistance surface (such as a clean, dry, asphalt pad) can also cause you to trip.

Make a point of adapting your walking style to the surface. To prevent trips, workers should:

- Keep as few objects as possible on walking and working surfaces.
- Eliminate abrupt changes in walking surface height.
- Where possible, replace stairs with ramps between levels. Be aware that when a ramp angle increases to as much as 20 degrees, the friction or slip resistance of the surface must increase approximately threefold in order to prevent slips.

Falls

The potential severity of falls is often underestimated. Falls are the cause of many workplace lost time claims, and falls of as little as one metre can result in serious injury or death.

Unsafe ladder use, particularly in construction and maintenance, can cause falls; but even stairs can present a hazard. People can lose their balance, slip on poor slip-resistant material on the nosing of the stair, or not bother to use handrails (perhaps because they're carrying something).

Falls associated with the operation of vehicles and equipment are often the result of a combination of a slip, loss of balance, and misjudging the height of a surface or step. To help prevent such falls, use handles when available and maintain three-point contact (either two feet and one hand, or one foot and two hands) when entering or exiting vehicles or equipment.

Same-level falls

Many inside falls are caused by slippery conditions related to:

- Poor housekeeping (such as dirt, grease, or contaminants on floors).
- Defects (such as inappropriate floor surface materials, surface wear, or uneven/damaged surfaces).

Falls from stairs

Many falls from stairs are caused by:

- Poor housekeeping.
- Defects or code violations (such as handrails that are absent or at the wrong height, as well as improper or changing tread/riser dimensions).
- Tread surface material.
- Poor lighting and visibility.

The majority of these falls are preventable.

Falls from elevated surfaces

Falls from elevated work surfaces are often preceded by slips and trips. Apply the same prevention methods to elevated surfaces as for slips and trips on level surfaces. Include railings, guardrails, travel restraint, or fall arrest systems where necessary.

For more information

Hazard assessment and control: a handbook for Alberta employers and workers (BP018)

ohs-pubstore.labour.alberta.ca/BP018

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ohs-pubstore.labour.alberta.ca/slips-trips-and-falls

Contact us

OHS Contact Centre

Alberta toll-free

- 1-866-415-8690

Edmonton region

- 780-415-8690

Deaf or hard of hearing (TTY)

- 1-800-232-7215 (Alberta toll-free)
- 780-427-9999 (Edmonton region)

Notify OHS of health and safety concerns

alberta.ca/file-complaint-online.aspx

Call the OHS Contact Centre if you have concerns that involve immediate danger to a person on a work site.

Report a workplace incident to OHS

alberta.ca/ohs-complaints-incidents.aspx

Website

alberta.ca/ohs

Get copies of the OHS Act, Regulation and Code

Alberta King's Printer

alberta.ca/alberta-kings-printer.aspx

OHS

alberta.ca/ohs-act-regulation-code.aspx

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