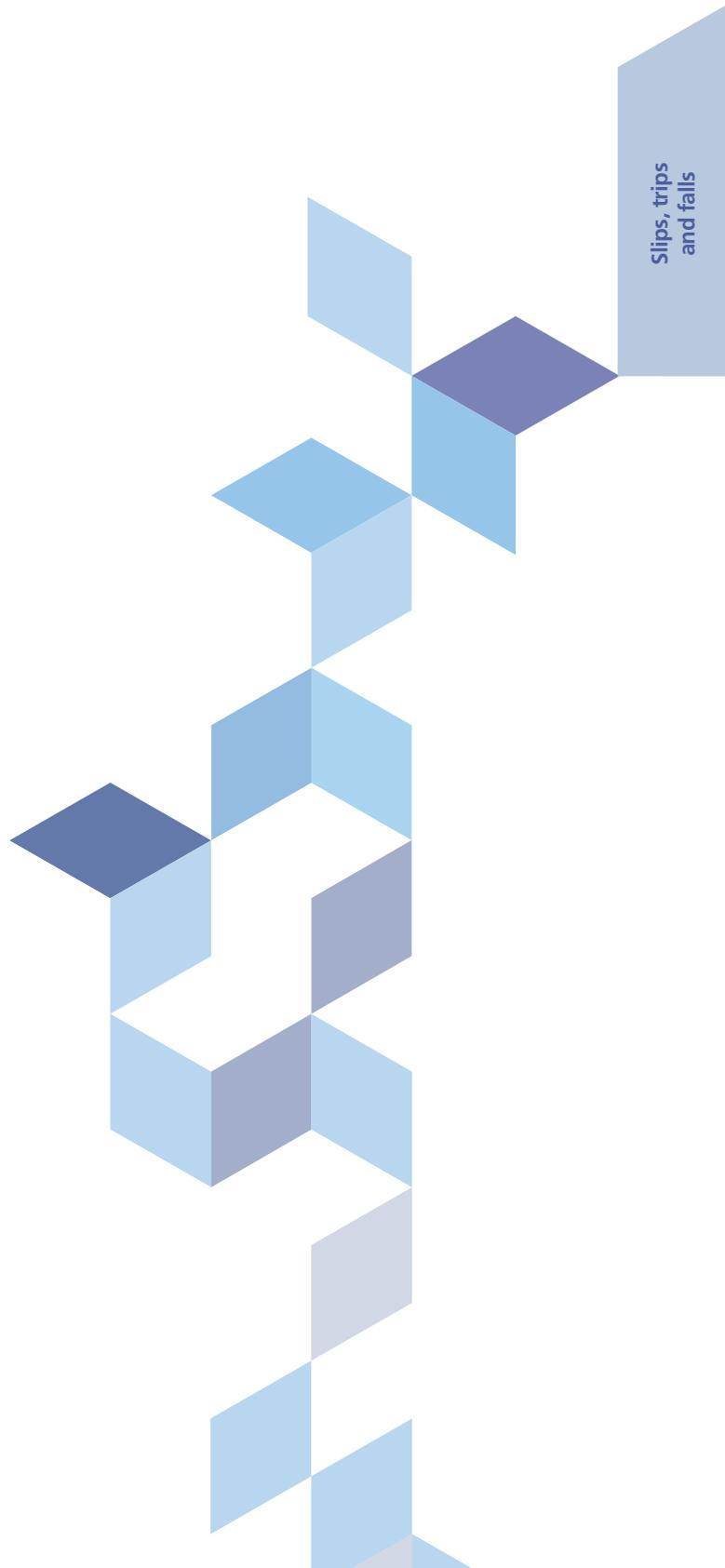


Slips, trips and falls



Slips, trips and falls



Slips, trips and falls

Slips, trips and falls are the second most common cause of workplace injury, after hazardous manual tasks. Some common hazards arise from:

- type and stability of floor or ground surfaces (e.g. uneven or broken concrete, sloping ground)
- slippery floor surfaces (e.g. from water, spilled fluid, oil)
- equipment, boxes and materials blocking walkways
- stairs or steps
- carrying things that obscure the view ahead
- poor lighting
- inadequate or improper footwear
- incorrect use of ladders
- falling or moving objects.

Fall hazards are found where work is carried out both at height (e.g. storage rack stacking) and at ground level where there is a risk of falling into a hole (e.g. service pits).

Further information

Code of Practice: Managing the Risk of Falls at Workplaces

safework.sa.gov.au/cop

Floors, walkways, stairs and landings

Hazards/risks

Uneven, poorly maintained or slippery floor surfaces, obstructed/restricted walkways and poor housekeeping can lead to slips, trips and falls.

Safety solutions

Report and repair any damaged floors and surfaces.

Clearly mark all walkways, ensure they are of adequate width, and implement a clean and clear walkway policy.

Design electrical and air plug-in points to limit cords and hoses across workshops.

Attach mats to floor surfaces.

Restrict access to areas that are potentially hazardous.

Provide ramps, not steps, where floor level height changes.

Provide adequate lighting.

Use warning signs (e.g. wet floors).

Implement a 'good housekeeping' policy (e.g. for rubbish, waste products etc). to keep all work areas clean and clear.

Further information

Australian Standard *AS1657: Fixed platforms, walkways, stairways – Design, construction and installation*



Ladders

Hazards/risks

If ladders are unsafe or used incorrectly, this can result in serious injuries caused by falls from height, ladders slipping and falling objects.

Ladders should only be used if there is no other reasonably practicable means of accessing different levels that is safer and more efficient.

Extension or single ladders should only be used as a means of access to or egress from a work area. They are not a place to work from except for light work of short duration that can be carried out safely.

When working space and movement area are restricted on ladders, awkward and limited working positions can lead to musculoskeletal disorders.

Safety solutions

Select a ladder that is the most suitable for the job and the work environment (e.g. aluminium ladders can easily be damaged if exposed to acids, and only non-conductive, insulated ladders should be used for electrical work or near electrical hazards).

Use ladders rated for industrial use (at least 120kg) as they are designed to carry more load and are of stronger construction than domestic types.

Ensure ladders are fitted with non-slip safety feet.

Store ladders in a dry place to prevent warping or corrosion and check their condition frequently. Have ladders periodically serviced by a competent person (someone who is qualified either through experience and/or training).

Further information

Australian Standards:

- *AS/NZS 1892.1 Portable Ladders: Metal*
- *AS/NZS 1892.2 Portable Ladders: Timber*
- *AS/NZS 1892.3 Portable Ladders: Reinforced plastic*
- *AS/NZS 1892.5 Portable Ladders: Selection, safe use and care*

Instruct workers in these rules of ladder use:

- When setting up or moving a ladder check for overhead obstructions (e.g. electrical cables).
- Place ladders on firm, dry, level ground, engaging all locks and braces.
- Ensure compliance with the manufacturer's load rating.
- Only one person should be on a ladder at any given time.
- When ascending or descending, maintain 3 points of contact at all times – 2 feet and 1 hand, or 2 hands and 1 foot.
- Climb and descend facing the ladder.
- Never carry anything when climbing or descending.
- Keep centred between the ladder sides.
- Never lean sideways or over reach.
- Be careful when pulling or moving items from above (e.g. from shelves) as this may cause over balancing or objects falling on people below.
- Never stand above the ladder tread or rung indicated as the maximum safe working height.
- Only conduct light work from a ladder.
- If a ladder is placed near a doorway, fix the door in the open position or close and lock it. Alternatively, place another person on guard at the foot of the ladder. Warning signs may also be used.
- Only use step or trestle ladders in the fully open position. A rigid metal spreader or locking device must be used and the load carried by the front stiles.

Service pits

Hazards/risks

The hazards of working in or around vehicle service pits can include falls into an unguarded or uncovered pit, asphyxiation, explosion or fire.

Some fuel vapours from vehicles and gaseous by-products of combustion have a tendency to settle in low areas, such as vehicle service pits.

Service pits have poor ventilation which can allow hazardous atmospheres to develop.

Risk control measures should be based on fall prevention, ventilation and fire safety.

Read more about working in confined spaces on page 52.

Read more about fire and explosion on page 54.

Safety solutions

Provide multi-purpose hoists and elevated ramps for overhead work, rather than the conventional service pit.

Paint the pit interior white and outline the edges for at least 600mm in a conspicuous colour (e.g. safety yellow).

Install sectionalised guard railing designed to fit into prepared floor sockets, or suspend chain barriers from removable steel uprights to prevent people walking into open pits.

Cover pits when not in use with either traditional hardwood covers, or the better solution of heavy interlocked steel plates designed to run through guide rails (much like a roller shutter).

Use ventilation systems with vents in the side walls of the pit to vent vapours and fumes.

Ensure all portable or permanent lighting and/or electrical equipment within the hazardous zone of the pit is intrinsically safe.

Never drain a petrol tank or service LPG-powered vehicles over or next to a service pit.

Avoid work involving welding or oxy cutting inside or adjacent to service pits.

Further information

SafeWork SA:

- *Safety Alert – Service pits*
- *Hazard Alert – Working under elevated motor vehicles*

safework.sa.gov.au



Storage and racking

Hazards/risks

Risks arise from the use of high force and/or awkward postures from the manual lifting, lowering and handling of materials, stock and equipment.

Stacking that is unstable, unbalanced or too high creates an issue, as do falls from height (e.g. from ladders and mezzanine storage areas). Exceeding safe working load ratings and damaged supports are also risks.

When using mechanical lifting and positioning aids (e.g. forklifts) to lift, stack or transfer stock, other hazards related to traffic management and equipment use are introduced.

This includes the use of attachments not authorised for use on forklifts. Read more about forklift safety on page 44.

Safety solutions

Ensure racking is suitable for the product type and that load ratings are known and not exceeded.

Ensure tyres and parts are not stored above shoulder height, or at too low a level.

Keep minimum stock on-site, based on usage rates, to avoid over-stacking or crowding of storage areas.

Minimise double handling by creating storage areas as close as possible to where work is done.

Strictly follow limits on layered/pyramid stacking.

Roll, rather than lift by hand, car and truck tyres and wheels, or use mechanical aids.

Use mobile access platforms to access stock stored above shoulder height.

Ensure mezzanine storage areas have guard rails and purpose-built stair access with a hand rail.

Use appropriate, industrial use, A-frame platform ladders, following the rules on page 37.

Use mechanical aids to lift items up to racking above shoulder height or to mezzanine storage.

Store tyres and parts in 'stillages' (e.g. crates, bins, pallets, racks) that can be safely stacked and/or moved with a forklift. Implement a strict traffic management plan if forklifts are used.

Do not allow workers to stand on forklift arms as part of loading and unloading.

A *Licence to Perform High Risk Work* is required for forklift operation. While forklifts offer a practical materials handling solution, they continue to be associated with workplace deaths and injuries.

Further information

SafeWork SA *High Risk Work – Guide to Forklift Safety*

safework.sa.gov.au



Quick safety scans – slips, trips and falls

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Floors, walkways, stairs and landings	Always	Sometimes	Never
All areas are free of slip and trip hazards (e.g. air lines, hoses, electrical cables and leads, tools, spills, boxes, rubbish, uneven surfaces)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fluid spills are cleaned up immediately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walkways, ramps and steps are wide enough, clearly marked and free of obstructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External areas (e.g. carparks, pathways) are free of slip and trip hazards (e.g. potholes, uneven paving)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drains are covered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sumps (waste oil) are emptied regularly, and there is no overflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floor surfaces and mats are in good condition to prevent slipping when wet or contaminated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stairs and hand rails (where required) are in good condition (e.g. anti-slip treads)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stairway landings are clear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advisory/warning signage is in place (e.g. <i>Slippery When Wet/Beware of Opening Door</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All areas are well lit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are provided with/instructed to wear non-slip footwear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ladders	Always	Sometimes	Never
Ladders used are stable and in good condition, and only used for their designed purpose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-conductive, insulated ladders are used for electrical work or near electrical hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ladders are rated for industrial use (at least 120 kg)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturer's load rating is complied with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ladders meet Australian Standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are instructed in rules for ladder use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All ladders are regularly checked and periodically serviced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Step/trestle ladders are only used in fully open position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-slip rubber feet are fitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work platforms are used for access to work at height	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Service pits	Always	Sometimes	Never
Multi-purpose hoists/elevated ramps are used (so work is done overhead, not in a service pit)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pit interiors are painted white and the edges outlined in a conspicuous colour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pits guarded/chained as fall protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pits are covered when not in use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adequate ventilation is provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lighting is safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosion/fire risks are assessed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work involving welding and oxy cutting is avoided inside or adjacent to pits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Storage and racking	Always	Sometimes	Never
Materials are stored to minimise lifting and enable good manual handling practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parts are stored in appropriate areas with racking, shelves etc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limits are followed on layered/pyramid stacking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tools and equipment are stored appropriately, and returned to storage when not in use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shelving is in good condition, stable and securely fixed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shelving is not overloaded or overstacked (as per certified load ratings)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial use, A-frame platform ladders are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mobile access platforms are used to access stock above shoulder height	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All materials are stored to prevent falling, and are free from projections and sharp edges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overhead/mezzanine storage has guard rails/kickboards and purpose-built stair access with hand rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overhead/mezzanine storage is designed for load-bearing purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical aids are used to lift stock to mezzanine levels or above-shoulder-height storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres and wheels are rolled, or mechanical aids are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres/parts are stored in stillages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

