**Introduction**

Slips and trips are the most common cause of injury in the workplace. On average, they cause over a third of all major injuries and can lead to other types of accidents, such as falls from height or falls into machinery.

Several thousand construction workers are injured each year following a trip or slip whilst at work on a construction site. Around 1000 of these injuries, involve someone fracturing bones or dislocating joints.

Many slip, trip and fall injuries occur due to dangerous conditions being created on site. We all have duty of reasonable care to identify the existence of dangerous or unsafe conditions therefore; there must be a collective responsibility to remove the hazard and report for preventative action.

Inadequate housekeeping, maintenance and site inspection procedures are also major contributing factors to most slip, trip and fall injuries

**Causes of slips, trips, and falls**

There are many causes and contributing factors in slip, trip and fall accidents on a construction site. Understanding these causes and challenges will help develop effective mitigation strategies to address losses. Causes include:

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| * Having to walk over uneven ground, particularly when carrying unwieldy objects; * Tripping over building materials or waste that has simply been left lying around; * Tripping over trailing cables; spillages, slipping caused by wet surfaces or poor ground conditions; * Trips caused by small changes in level; | * Slopes; * Poor weather conditions, ice, snow and rain; * Unsuitable footwear; * Lack of signposting and barricading; * Inadequate lighting; * Inattention/distraction/thoughts elsewhere; * Fatigue; * Vegetation |

**Identifying and Mitigating Slip, trip & fall risks**

There are some steps at very early stages that can be taken to assist in reducing potential risk:

**Plan**

Works must be planned to design out hazards, identify key areas of risk and determine risk mitigation measures. By designing out the risks in the early stages of a project significantly reduces the hazards associated with slips, trips and falls.

Primary consideration must be given to walkways and all access and egress routes to and from, in and around the site.

* Consider all site activities including access to setting out/surveying, ground investigations, vegetation clearance, earthworks, excavations, loading & unloading areas, materials storage, landscaping, work in verges etc. and remember that project activities and access points are likely to change as work progresses;
* Ensure temporary works are properly designed, inspected and maintained including access scaffold, stairways, access into excavations etc.;
* Plan for inclement weather conditions such as heavy rain, wind, ice and snow and take appropriate actions;
* Ensure the work area and any flooring itself, where reasonably practicable must be of a condition that minimise the risk of slips, trips and falls whilst workers carry out their duties;
* Plan deliveries to minimise the number of materials on site and maintain safe access around site;
* Make proper arrangements for the removal of waste from the work area and its proper disposal in a safe and efficient location;
* Ensure that work and storage areas are kept tidy, include regular site inspections as part of your routine monitoring;
* Where small changes of level cannot be avoided, arrange sound temporary ramps or some other way of providing safe and easy access;
* Work collaboratively to identify potential problem areas and set goals for improvement;
* Plan to avoid trailing cables;
* Plan to place materials convenient to the area where they are to be used to reduce the need to carry objects over poor ground.

**Control**

* Where slips, trips and falls cannot be avoided control measures must be introduced to reduce the hazard to a low level;
* Discourage people from taking shortcuts over grass or unmade ground, which are likely to become slippery when wet. Consider converting existing shortcuts into proper paths;
* A more systematic strategy can help prevent and control these types of incidents;
* Since slip, trip and fall accidents affect all employees on a site; raising awareness of the impact of incidents and involving employees in worksite assessment is considered an effective strategy;
* To raise awareness, the focus on slips, trips and falls should form part of every risk assessment, positive behavioural procedures, daily briefings, and employee consultation processes;
* Tethering of tools and items when working at height near to a leading edge or where there is the potential of fall needs to be adopted;
* Reinforce the need to maintain 3 points of contact when accessing and exiting plant and vehicles through awareness campaigns;
* Focus cannot solely rest with the physical measures and environment however and we do need to consider the behaviour of people on site and what drives behaviour either positively or negatively.

**Human behaviour**

* A positive attitude toward health and safety, a ‘don’t walk by’ mentality can reduce the risk of slip and trips accidents e.g. dealing with a spillage, instead of waiting for someone else to deal with it;
* Reinforce this message by the use of company posters, toolbox talks, e-learning;
* The type of footwear that is worn and how it is worn can also make a difference e.g. wearing worn soled boots at work will make you more vulnerable to a slip or not lacing your boots up all correctly to give you maximum ankle support. Things that prevent you from seeing or thinking about where you are going, can also increase the risk of an accident such as rushing about; carrying large objects; becoming distracted whilst walking, for example, using a mobile phone;
* A collective responsibility needs to be enforced e.g., excavator drivers should be expected to not just dig a hole in the ground. The surrounding work area should be flat and level where ever possible and the excavator driver must ensure that any spoil excavated from the ground does not create a walking hazard.

**Change in level controls**

* In every form of construction, there has to be an element of deconstruction or temporary works. In most cases, this creates a change in level to the working environment. Large changes in level such as deep excavations are usually planned and assessed at the design stage but smaller works have usually less forethought and as a result, do not consider the risks associated with a change of level;
* Highlighting changing levels through paint, coloured tape or signage should be implemented.

**Lighting**

* Adequate natural and/or artificial lighting must be provided so people can see hazards. Check lighting conditions both inside and outside of the workplace at different times of the day throughout the life of the project;
* A good maintenance system is also essential, as spent lights should be changed as soon as possible;
* Provide workforce with personal lighting such as helmet lamp or torch, but this should not be instead of task lighting;
* Encourage workers to stop work immediately when lighting is defective/inadequate.

**Alighting from and stepping off vehicles/mobile plant/trailers**

* Park vehicles and items of mobile plant in areas that are lit and where ground conditions are good, i.e. flat and level;
* Use steps and handrails provided in accordance with the manufacturer’s instructions;
* Ensure that steps, handrails and other means of access/egress are - Suitable for purpose and subject to visual inspection before and after use - Subject to regular maintenance and that routes trafficked by pedestrians remain clear of obstructions, including debris.