QBE Risk Insight - Slips, Trips and Falls.

The Costs associated with Slip, Trip and Fall Accidents

Despite slips, trips and falls (STFs) accidents costing employers over £500 million per year, hse.gov.uk/slips/costs.htm STFs are often not taken seriously, causes are often poorly understood and risk assessment and management controls deficient.

Employers are faced with visible and hidden costs:

Visible Costs

- Insured Costs & Civil Claims

Hidden costs

- Production delays
- Costs of overtime, temporary labour and additional training needs
- Loss of expertise and experience
- Management time investigating accidents and dealing with the aftermath
- Regulatory prosecution and fines
- Reputational damage

The effects on the individual involved in a Slip, Trip and Fall incident can result in a loss of income, pain & suffering, reduced quality of life, worry and stress.

Impact on Employers

The Health & Safety Executive (HSE) 2023/2024 Statistics show that Slips, Trips & Falls on the level were the most common cause, 31% of non-fatal reported injuries to employees in UK Workplaces.

https://www.hse.gov.uk/statistics/causinj/index.htm

Legal Duties

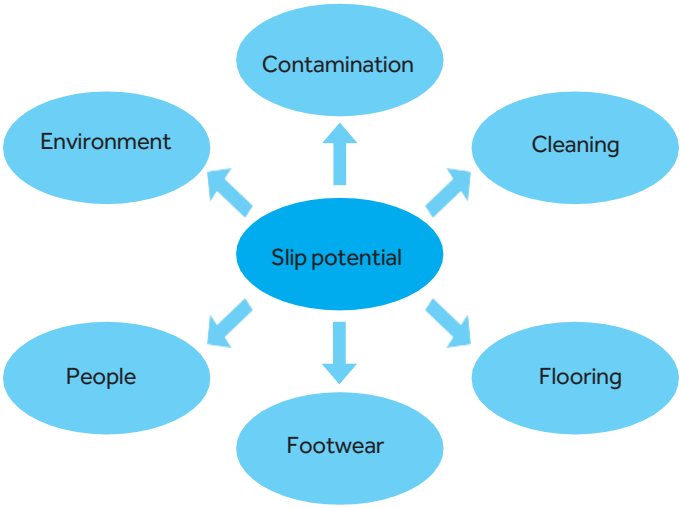
The Health and Safety at Work etc Act 1974 (HSWA etc) requires employers to ensure the health and safety of all employees and anyone affected by their work, so far as is reasonably practicable. Employees have a duty to take care of their own health and safety and that of others.

The Management of Health and Safety at Work Regulations 1999 build upon the HSW Act and include duties for employers in control of workplaces to assess risks (including STF) to both their employees and anyone else affected by their work activities. They also require appropriate arrangements for planning, organisation, control, monitoring and review of any measures to safeguard health and safety as identified by the risk assessment.

Occupiers have a duty to visitors covered by the **Occupiers' Liability Act 1957**. The Act places a duty on occupiers of premises to ensure all reasonable steps are taken to safeguard persons from known dangers or dangers the occupier should reasonably know exist. The common duty of care is: **A duty to take such care as in all the circumstances is reasonable to see that the visitor will be reasonably safe in using the premises for the purpose for which he is invited or permitted to be there'.**

HSE Slip Potential Model

This model provides a summary of the elements to be considered during a slip risk assessment (e.g. Is the floor surface suitable for the environment it is in, for the intended users and the behaviour they may exhibit).



Further Guidance on this topic can be found in the Risk Essentials – Slip Potential Model Information Sheet:

https://qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential managing-trips/?token=900963

Flooring

The HSE and CIRIA guidance describes testing equipment to determine the slip resistance of floor surfaces.

The most valid and accurate method of testing the slip resistance of flooring for pedestrians is the pendulum test. Only the pendulum test is recommended for specifying the slip resistance of flooring by the Health and Safety Executive. The method is based on a swinging, imitation heel (using a rubber sole sample), which sweeps over a set area of flooring in a controlled manner. The slipperiness of the flooring has a direct and measurable effect on the pendulum test value (PTV) given. The pendulum test gives valid information in the clean and dry, and contaminated conditions and measurements can be made both in the laboratory and on site.

Table 1 Slip potential classification, based on pendulum test values (PTV), (from UKSRG, 2024):

	PTV (Pendulum Test Value)
High slip potential	0-24
Moderate slip potential	25-35
Low slip potential	36 +

Further research has indicated that the relative risk of slipping from surfaces with a specific Slip Resistance Value may be as follows:

Pendulum Test Value	Probability of slip on a horizontal surface:
36	**1 in 1 million**
34	**1 in 100,000**
29	**1 in 10,000**
24	**1 in 20**

Flooring with a PTV of 36+ in normal operating conditions will significantly reduce the risk of slips. All flooring will provide this level of performance in clean, dry conditions but the slip resistance of smooth flooring can be compromised by very small amounts of contamination as discussed below.

Obtaining pendulum results that are relevant to pedestrian slipping requires an experienced, methodical operator using the test to a specific set of guidelines.

The current version of the United Kingdom Slip Resistance Group guidelines (UKSRG, 2024) https://www.ukslipresistance.org.uk/guidance-and-faqs/uksrg-publications should be followed closely by a trustworthy pendulum operator with no vested interest in the results.

Further guidance on this topic can be found in the Risk Essentials – The Slip Resistance of Flooring:

www.qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-slip-resistant-flooring/

Contamination

The risk of slipping if both footwear and the floor being walked on are clean and dry is very small, even on smooth shiny flooring. Contamination can be any substance on the floor surface, whether it is a wet or dry substance. By removing the contamination and returning the floor to a dry state, the risk of slipping will be significantly reduced. Preferably the risk assessment process will identify all sources of potential contamination and introduce controls to prevent the contamination reaching the floor or to prevent its spread e.g. building canopies, entrance matting, driptrays around machines & conveyors.

Where contamination of a floor is foreseeable and the floor does not provide suitable slip resistance in the contaminated condition (as discussed above), the use of warning signs or cones will not absolve a duty of care.

Employers and/or occupiers in these circumstances should plan to replace or treat the floor so that the PTV is suitable for the type of contamination expected unless pedestrians can be reliably prevented from accessing the floor while it is contaminated.

Further guidance on this topic can be found in the Risk Essentials – Contamination information sheet:

qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-contamination/

Cleaning

Cleaning has an important role in preventing slips and trips; done well it can help to reduce the risk but done badly it can increase the risk. Cleaning should therefore be carefully considered both as a control measure and as a potential source of risk.

If smooth floors become contaminated, they can be very slippery and cleaning processes need to be well planned, managed and supervised. Cleaning should not be used as the primary means of preventing slips if you can prevent contamination, but cleaning can help manage the risk. Even slip resistant flooring can lose its performance if dirt is allowed to build up on the surface.

The technique used to clean a floor can be just as important as the chemical selected. Slip resistant flooring can be cleaned to a suitable aesthetic and hygienic finish. This doesn't typically require more time or effort than cleaning a smooth floor, though the technique required may be different. It is essential that documentation is maintained to demonstrate that your systems have been adhered to.

Practical systems to consider and adapt to your circumstances include:

- Appropriate methods and Appropriate methods and materials should always be used.
- Employee training is provided to ensure the correct cleaning technique is applied for the flooring type and contamination encountered.
- Where practical cleaning is done at a time of day when pedestrian movements are at their lowest.
- Active monitoring techniques are recorded to demonstrate employees are working to the cleaning routine. These can be included in manager/supervisor's KPI's and more formally by departmental audits.

The value of active monitoring systems that record the cleaning and inspection regimes can help to demonstrate that at the time of an incident, all had been done that one could reasonably expect to maintain the floor in a clean and safe condition.

- In premises which the public have access to, regular inspections of the thoroughfares and toilets should be recorded at least hourly.
- Warning signs should be used to alert pedestrians to slip risks, for example during cleaning, after a spill or during wet weather and removed after. The use of a wet floor sign alone is not an effective method of reducing the risk of people slipping. When using warning signs to manage the risks of cleaning, ensure that all of the information in the Risk Essentials - Cleaning Regimes information sheet referenced below has been considered and acted upon where possible first.
- When selecting specialist Cleaning Contractors, a process of due diligence will assist in the selection of competent firms and their ability to carry out the work required.
- In addition, clients should ensure that they hold current insurance protection with sufficient financial cover to indemnify them in the worst-case scenario. Additionally, verification of a contractor's safety policy, safety performance and accident rates should be included in any due diligence programme. Look for evidence of personnel being well trained in safety management, such as an accredited IOSH qualification and trade qualifications, like The British Institute of Cleaning Science (BICS). Contractors should be provided with enough information to undertake the contract safely.

Consider the provision of slip resistant PPE footwear (as discussed below) for cleaning operatives as they will have to access potentially slippery surfaces during the cleaning process.

Further guidance on this topic can be found in the Risk Essentials – Cleaning Regimes:

qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-cleaning-regimes/

Footwear

The selection of footwear for employees will form part of the Personal Protective Equipment risk assessment. The risk of slipping needs to be considered alongside other risks to the foot such as falling objects or materials piercing the sole.

Specifying suitable slip resistant footwear is made difficult by poor standards. Footwear that has achieved a high level of slip resistance in common standard tests, and is branded as slip resistant, may not actually offer suitable protection in use.

Where footwear is used as a primary control for preventing slips, relevant information from a valid test is needed to ensure that appropriate footwear is selected, and this is provided by the Health and Safety Executive's GRIP scheme.

GRIP is a footwear slip resistance rating scheme developed by the HSE to actively reduce slips.

Footwear manufacturers who have signed up to the scheme will be able to display the rating, from 1 to 5 stars, on their product packaging, allowing footwear buyers to select the most appropriate footwear for their work environment.

Further guidance on this topic can be found in the Risk Essentials – Footwear information sheet:

qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-footwear/

Human Factors

Falls are often attributed entirely to human error. Though all falls will involve an error by the pedestrian in maintaining a safe walking gait, the likelihood of that error is influenced by a range of environmental and task factors. Assuming that a fall is purely due to human error without identifying these additional root causes prevents an organisation from learning from the incident and making relevant improvements to prevent similar falls in the future. Things such as medical conditions, age, alcohol and drugs should be factored in. Studies have shown that if individuals are distracted by a conversation, perhaps on the phone, they will be less aware of their surroundings.

Employees should raise concerns and identify solutions and employees should be aware of all the existing procedures, processes and risk assessments that are relevant and should be encouraged to look for improvements. Their ideas should be involved in the development of any new or revised procedures, processes or risk assessments.

Further guidance on this topic can be found in the Risk Essentials – Human Factors information sheet:

qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-human-factors/

Environment

Workplaces should be suitably lit to help avoid slip and trip accidents. Where trip hazards cannot be easily removed, such as kerbs and single steps, these should be highlighted using clear visual contrast provided by differences in light reflectance value (LRV).

Further guidance on this topic can be found in the Risk Essentials - Managing Trips:

https://qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-managing-trips/?token=900963

Trip Risk Management

Slips and trips have different causes which will require different solutions if falls are to be prevented. There are two common factors that lead to a trip:

- An obstacle in the pedestrian's path
- A failure to see the obstacle

Research suggests that even an obstacle or change in level that is 10 mm high can present a trip hazard. Good housekeeping and maintenance can help to eliminate temporary trip hazards (e.g. trailing cables, uneven edges to flooring or gratings/covers, loose mats/carpet tiles, temporary obstructions).

Where more permanent hazards are present and are difficult to remove (e.g. kerbs, single steps, bunding around machinery), ensuring the area is well lit and effectively highlighting the hazard using LRV contrast can reduce the risk of trips.

Many companies have achieved considerable success and improved housekeeping conditions by utilising the "5S Philosophy".

Sort: Neatly arrange all equipment and production materials, remove unnecessary items.

Set in Order: All items should be positioned in the most appropriate location so they can be easily accessed, removing clutter and avoiding obstructions.

Shine: Conduct cleaning regularly.

Standardise: The process across departments and locations for a consistent approach.

Sustain: The 5S philosophy for continuous improvement.

Further guidance on this topic can be found in the Risk Essentials – Managing Trips information sheet:

qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-managing-trips/

Preventing Stair Falls

A fall on stairs, particularly in descent, often leads to serious injury or even death.

Falls on stairs are often seen as purely human error. In reality, stair design has a huge influence on the likelihood of someone making a mistake when using the stair. Human behaviour is hard to control but good stair design reduces the risk of falls for all stair users.

There are three critical aspects of stair design that need to be considered:

Dimensions: The size of stair treads influence the risk of a serious stair fall. Stair dimensions must also be consistent, with millimetre differences between adjacent treads making falls more likely.

Tread design: The edge of the tread (the nosing) on each step needs to be clearly highlighted to help pedestrians accurately place their feet, particularly in descent. Suitable visual contrast should be present between the nosing highlight, the material of the tread it is on, the tread or floor below, and any landings. The highlight should be present at the very edge of the tread.

Handrails: Handrails need to be well designed and positioned in order to prevent falls. A poorly designed handrail may not prevent a fall even if the person is holding it.

Further guidance on this topic can be found in the Risk Essentials - Stairs and Steps information sheet:

www.qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-stairs-and-steps/

Incident Investigation

For slips and trips, it is important that all mitigating factors are recorded as part of the incident investigation including the condition of the floor, any contamination present, what the person was doing, the environmental conditions, quality of lighting, footwear worn etc. It is important the investigator records facts and does not express opinions.

Providing specific training for investigators on the causes of falls will improve the quality of investigations, generate more relevant information, and help to identify the most effective solutions.

Maintain adequate data on STF incidents to include incident and near miss numbers and details, incident frequency, incident severity (days lost), root cause of incident, location of accident, time of day etc.

Further guidance on this topic can be found in the Risk Essentials– Incident Investigation information sheet:

qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-incident investigation/.

Winter Weather – Snow and Ice

An occupier or employer can be liable if they take no reasonably practicable steps to guard against the risks of snow and ice on their premises. Practical action to deal with winter weather should include the implementation of a cold weather policy. Steps must be taken to follow that policy – training on implementation and use. Identify who is responsible for doing what, for example, caretaker, owner of a business, manager or supervisor.

Checklists should be used to include action on arriving at a premise to eliminate or reduce the risk of slips and falls due to snow or ice. Weather forecasts should be reviewed regularly.

For further guidance on winter weather policies, as well as managing ice around walk-in freezers, refer to the Risk Essentials - Winter Weather and Ice Management information sheet:

www.qbeeurope.com/document-library/risk-solutions/risk-essential/slips-trips-risk-essential-winter-weather-management/

Conclusions

A structured risk managed approach to addressing slip, trip and fall risk should be developed within all organisations. If followed, this should lead to improvements in incident frequency rates and improved claims defensibility.

The QBE Risk in Practice - Slips Trips and Falls Toolkit is designed to assist businesses in establishing risk management policies and systems to prevent slips, trips and falls and to develop documentation that can be used in the effective management of slip, trip, fall claims. The toolkit is intended as a template for a business to adapt to its own business activities and premises:

qbeeurope.com/document-library/risk-solutions/risk-in- practice-slips-trips-and-falls-toolkit/

The QBE Slips, Trips and Falls Self-Assessment questionnaire is aimed at assisting you to manage Slip, Trip and Fall liability exposures and key claims drivers. Where you feel you cannot answer a question positively or are not adhering to 'best practise', we will provide recommendations to help you manage your risk issues. Once you have completed and submitted the questionnaire a report with your recommendations will be available for instant download. For more information, please speak to your QBE Risk Manager.

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