

rmp

**Risk control**  
Slips, Trips and Falls  
Toolkit: Managing Trips



In partnership with



# Slips, Trips and Falls Toolkit: Managing Trips

## Introduction

Falls are the most common cause of major injury in the workplace and a significant contributory factor to these injuries are the actions of people.

Of all the reportable injuries received annually by the Health and Safety Executive, 32% related to slips, trips and falls on the same level<sup>1</sup>.

Slips and trips have different causes which will require different solutions if falls are to be prevented. Trips tend to result in a person falling in the direction they were walking as their foot stops unexpectedly.

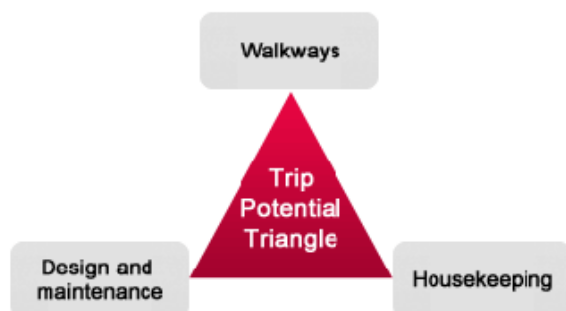
This guide is designed to help organisations assess the risk of a trip in the workplace and to think about suitable controls to reduce risk.

## The Trip Potential Triangle

The majority of trips<sup>2</sup> are caused by obstructions in walkways with the rest caused by uneven surfaces. It is relatively easy to prevent these accidents by getting three things right (walkways, housekeeping, and design and maintenance).

There are two common factors that lead to a trip:

- An obstacle in the pedestrians path
- A failure to see the obstacle.



Most workplaces have trip hazards; some should not be there and could be easily removed (e.g. bags or packaging materials), whereas others are more difficult to remove (e.g. single steps).

Uneven surfaces, temporary obstacles and changes in level can all interrupt a pedestrian's stride and cause them to trip. The minimum distance between the foot and the floor when walking is usually called toe clearance.

Toe clearance varies between individuals and with age. Research<sup>3</sup> suggests that even an obstacle or 10mm change in level can present a trip hazard. Bigger obstacles present a greater risk of trip if people do not notice them.

The same research also suggests that toe clearance decreases with age, so minimising or eliminating trip hazards is of particular importance in locations where there is a high proportion of elderly pedestrians. Pedestrians with visual impairments may have difficulty seeing trip hazards putting them at greater risk.

It is important to bear in mind that trips don't just happen during normal walking (pedestrians can trip whilst stepping backwards or manoeuvring) and the positioning of a trip hazard and the activities being undertaken in the vicinity will have an influence on the risk that it poses.

## Assess the Risk

It is important to understand the trip risks in a workplace. A suitable and sufficient risk assessment should be undertaken to identify potential trip hazards and implement suitable control measures to minimise the risk.

Consider the people who are likely to be exposed to the trip hazard and consider whether their capabilities or the tasks they are performing increase the risk.

An example of a high-risk task is carrying objects, especially in both hands. This can significantly increase the risk of a trip, as it can impair a person's view of the ground in front of them, affect their balance and limit their ability to recover from the initial stages of a fall.

## Eliminate Removable Trip Hazards

All workplaces contain objects that could present a trip hazard if left in pedestrian walkways. By maintaining good housekeeping standards and a culture of responsible working trips can be prevented.

Organisations should be proactive in identifying and removing temporary trip hazards and encouraging colleagues to do the same. Suitable storage and waste disposal facilities will be needed to keep the workplace tidy. Ensure matting does not curl upwards becoming a trip hazard. Good housekeeping also involves regular removal of old or obsolete items from the workspace to free up additional storage

## Non-Removable Trip Hazards

Some trip hazards may be part of the fabric of a building or an integral part of work equipment and so cannot be easily removed. Consider using overhead or underfloor cable runs and compressed air supply lines.

In instances where it is not practical to remove the trip hazard, think about how to minimise the risk. To stop people walking over the trip hazard, erect a barrier around it or install a raised walkway over it. Use visual contrast and suitable lighting to make obstacles and changes in level more visible.

Where a trip hazard has arisen from damage to walkways or poor maintenance of machinery, identify these issues promptly and resolve them. A quick and simple hazard reporting system will help the staff working in the area to bring up any problems they have noticed. Make sure that reports are followed up, even if the defect can't be fixed right away. Reporting will probably stop if individuals feel that no action is taken in response to their report.

## Routes and Walkways

Take time to observe the routes pedestrians take both inside and outside your workplace. This will allow for the detection of the development of desire lines. These are an unplanned route or path (such as one worn into a grassy surface by repeated foot traffic) that is used by pedestrians in preference to or in the absence of a designated alternative (such as a paved pathway).

Pedestrians may use these routes to avoid obstructions or perceive they offer the opportunity to save time. Make sure that where routes interact with traffic that clearly marked and defined crossing points are provided.

## Plan Work Activity

Good planning can greatly reduce the risk of a trip accident. Many trip accidents occur whilst climbing over equipment or stored items. Plan work and storage so that everything has a place and is easily accessible, without encroaching into pedestrian traffic routes. It is a good idea to define walkways, work areas and storage areas so that the workplace does not become untidy. Ensure walkways are free from slip or trip hazards.

Where workers need to carry and use tools and equipment in the workplace consider providing transportable storage systems such as toolboxes or tool belts to discourage items being left on floors or to erect a temporary barrier around areas where maintenance work is taking place.

## Lighting and Visibility

Trip hazards can be difficult to see if they are not adequately illuminated. Make sure the workplace is well lit. Use visual contrast to help distinguish trip hazards from the surrounding floor surface. There should be a light reflectance value (LRV) difference of at least 20 LRV between object and its surroundings, with 30 LRV being a better contrast to aim for.

## Equipment Specification, Design and Installation

Consider the trip risk when buying, designing and installing new equipment. Is it possible to reduce the risk of a trip accident by using cordless tools for instance that can eliminate trailing cables. The positioning of equipment and the way they are powered, drained and operated can have an influence on trip risk.

## References

1. Non-fatal injuries at work in Great Britain. Available here: <https://www.hse.gov.uk/statistics/causinj/index.htm>
2. Non-fatal injuries at work in Great Britain. Available here: <https://www.hse.gov.uk/slips/preventing.htm>
3. Risk of tripping, minimum foot clearance, and step length when crossing a barrier. Available here: <https://www.sciencedirect.com/science/article/abs/pii/S0169814121000561>

Risk Management Partners and Gallagher Bassett would like to thank QBE European Operations for the material used to shape this toolkit segment.

## Further information

For access to further RMP Resources you may find helpful in reducing your organisation's cost of risk, please access the RMP Resources or RMP Articles pages on our website. To join the debate follow us on our LinkedIn page.

## Get in touch

For more information, please contact your broker, RMP risk control consultant or account director.

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