

“Watch Your Step”

Preventing Vehicle Related Slips, Trips and Falls

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Vehicle related slips, trips and falls (STFs) are a leading cause of worker injury in Ireland. Workers who drive or work with trucks and vans are most affected. Drivers and transport workers climb in and out of their cabs hundreds of times a week, and routinely access the rear and sides of their vehicles using platforms and tail lifts. Transport operations often involve substances that can lead to slippery surfaces. Oil, grease, diesel, rain, snow and ice can make the conditions even more dangerous.

This information sheet will help you understand the causes of vehicle STFs and what you can do to prevent them. It is aimed at employers, the self-employed, employees, suppliers, buyers, fleet managers and anyone who drives or works with vehicles.

According to injury reports to the HSA, trucks, vans and trailers are most commonly associated with vehicle related STFs. 40% happen between the hours of 9am and 1pm. Victims are predominantly male and aged between 25 and 54. Exiting vehicles was a factor in 45% of vehicle STF injuries.

24% of vehicle related slips, trips and falls lead to an absence from work of over one month. This can have a profound impact on the individual concerned and also a negative impact on business operating costs. The average employer liability claim cost for a vehicle related STF is €25,000.

Where do vehicle STFs happen?

HSA analysis shows that the areas most associated with vehicle STFs are:

- entering and exiting vehicles, particularly HGVs and vans,
- load platforms and load area of trucks and vans,
- trailer platforms,
- 5th wheel area of HGVs,
- vehicle steps and ladders,
- vehicle tail lifts,
- road tanker platforms, and
- uneven ground and damaged surfaces where vehicles are parked.



“34 year old driver and father of two jumped from the lowest step of his HGV cab, landed on a small rock and completely blew out his knee. He wore a cast from thigh to ankle for six months, and had a chronic limp after that – all from a 3 foot jump from his cab that landed wrong.”

¹ EU OSHA

¹ European Agency for Safety and Health at Work. Extract from ‘A review of accidents and injuries to road transport drivers’

What causes vehicle STFs?

Most vehicle STFs are caused by:

- unsafe methods of exiting or entering vehicles and load platforms;
- unsuitable, damaged or missing steps to access vehicle areas;
- poor housekeeping leading to material lying around that is a trip hazard;
- using footwear that does not protect against injury or provide slip-resistance;
- poor vehicle and platform design and materials, in particular unsuitable steps, ladders and walk-on vehicle surfaces.



What does the law say?

Workplace health and safety law² says that:

- ✓ a vehicle is a workplace and, like all other workplaces, requires a written risk assessment to identify the relevant hazards and associated controls to achieve safe systems of work. Safe systems of work must include safe ways of entering and exiting a vehicle;
- ✓ designers, manufacturers, importers or suppliers of vehicles, tankers and trailers must make sure they are designed and constructed safely and provide relevant information to customers;
- ✓ suitable instruction and training must be provided to those who work in, on and around vehicles; and
- ✓ where the risk assessment identifies a need for Personal Protective Equipment (PPE) such as safety footwear then it must be provided by the employer.

There are also additional specific legal requirements for certain classes of vehicles, such as specific slip-resistant surfaces for small and large public service vehicles.

Entering and exiting vehicles

“Never jump from a vehicle”

Entering and exiting vehicles and equipment safely is important but often overlooked. When parking you should try to avoid uneven ground, potholes, kerbs, drains, puddles and ice.

Other precautions may include:

- ✓ checking the ground conditions on approach and again before stepping out of the vehicle,
- ✓ reminding passengers to take care on entry and exit,
- ✓ changing footwear if necessary, for example slip-resistant footwear or ice grips,
- ✓ finding a space with adequate lighting, or using a torch where necessary,
- ✓ taking care to make sure you are not snagged on controls or seat belt,
- ✓ avoiding distractions from handheld devices such as phones, data loggers and scanners,
- ✓ if cab steps are not accessible, for example where vehicles have to park in tight spaces, take great care and follow a safe system to safely enter and exit the cab.



² Safety Health and Welfare at Work Act 2005 and associated regulations

Vehicle steps

“Vehicle steps should be slip-resistant”

Vehicles should be designed and operated so that it is always possible to enter and exit the vehicle safely. Steps that resemble stairs are easier to use than ladders.

- ✓ Vehicle steps should be slip-resistant.
- ✓ Vehicle steps should be clean and in a good condition with no damaged or missing steps.
- ✓ Vehicle steps should be big enough to at least allow the ball of the foot onto each step.
- ✓ Always keep both hands free for entering and exiting the cab, for example, not holding phones, handheld devices or tools.
- ✓ Maintain three points of contact. Grip the vehicle for support when exiting. Face the vehicle if safer.
- ✓ Handholds should:
 - allow proper access, in particular behind aerodynamic fairings,
 - allow a full grip, and
 - be properly located, secured and used.



Safety footwear

“Oil resistant soles may not be slip-resistant”

Employers are required to provide personal protective equipment to protect employees in certain circumstances. Protective footwear is required for drivers and people who work on and around vehicles as the risks associated with foot injury and slipping or stumbling are well known.

Health and Safety Authority Inspectors found that three quarters of transportation workplaces require slip-resistant footwear. Slip-resistant footwear should be:

- ✓ checked for slip-resistance markings, for example, SRA, SRB, SRC or UK Grip scheme (see www.hsa.ie/slips for more detail),
- ✓ trialled before selection,
- ✓ inspected regularly to make sure soles are clean and unclogged, and
- ✓ replaced regularly, as necessary.

Vehicle walk-on surfaces

“Slip-resistance can be measured and quantified”

In the transport sector most injuries are caused by slips, rather than trips or falls. The following vehicle areas can be particularly slippery: fifth wheel area, load platforms, the threshold (area around base of vehicle where it meets the door), tail lifts and vehicle steps. There are a number of materials including wood, steel, plastic, composites and aluminium that are used in vehicle walk-on surfaces that can become slippery if contaminated, wet or icy. Aluminium chequerplate in particular “offers poor slip-resistance if wet or contaminated”³.

- ✓ Keep walk-on surfaces clean, dry and free from trip hazards.
- ✓ Provide cleaning equipment suitable for the removal of diesel, oil and grease, for example at the fifth wheel area.
- ✓ Check for wear on slip-resistant surfaces, especially vehicle steps, and replace as necessary – include in routine maintenance checks.
- ✓ Check if the steps, the tail lift, the load platform, the threshold and fifth wheel area feel slippery underfoot when wet. Test further if concerned.
- ✓ Seek information from the supplier and consider testing if uncertain about slip-resistance of surfaces.
- ✓ Vehicle walk-on surfaces should also be slip-resistant when wet or dirty.
- ✓ Use contrasting colours to show the edges of loading areas, tail lift edges and step edges.
- ✓ Provide proper lighting to access and walk-on areas.

Further information and guidance

- Advice on safety laws can be found at www.hsa.ie/eng/legislation
- Advice on slips, trips and falls including steps and stairs, pedestrian surfaces, footwear and ice can be found at www.hsa.ie/slips
- Advice on work related vehicle safety can be found at www.vehiclesatwork.ie including vehicle checklists
- British Standard on safety footwear (BS EN ISO 20345: 2011: Personal protective equipment – Safety footwear) available from <http://shop.bsigroup.com>
- Detailed advice on slip-resistant surface: Safer surfaces to walk on – reducing the risk of slipping (CIRIA C652, available at www.ciria.org)

³ Safer surfaces to walk on (CIRIA C652, available at www.ciria.org)

Practical ways to prevent vehicle STFs

Risk area	Risk	Suggested control measure
Uneven ground	Trip and fall	<ul style="list-style-type: none"> Avoid uneven ground, potholes, kerbs, drains, puddles, ice, where possible Check ground conditions around vehicle
Vehicle cabs (HGVs and vans)	Trip and fall in cab	<ul style="list-style-type: none"> Keep the cab clean and tidy Keep floor area clear of materials, tools and equipment
	Fall from cab	<ul style="list-style-type: none"> Never jump out of the cab Never enter and exit or ascend and descend moving equipment Maintain three-point contact at all times while entering or exiting the cab Use access steps Always keep both hands free when entering and exiting the cab (for example, not holding phones, handheld devices, tools) Movement should be slow and steady to avoid injury from slips, falls, and striking other objects Wear safety footwear (with slip-resistance) appropriate for the weather conditions, access points and work being performed Remind passengers to take care on entering and exiting
Load platforms, trailer platforms and load area of trucks and vans	Slips, trips and falls on and from load platform and load area	<ul style="list-style-type: none"> Enter and exit vehicles and equipment at the most direct and most secure access point (normally designed by the manufacturer for this purpose) Only allow authorised, trained people to access vehicle areas and equipment Wear safety footwear (with slip-resistance) appropriate for the weather conditions, access points and work being performed
5th wheel area of HGVs	Slips, trips and falls on and from 5th wheel area	<ul style="list-style-type: none"> Consider providing ground access to connections and hoses at 5th wheel area to avoid the need to access the area Where ground access is not provided, provide slip-resistant access (ladders and steps) and surfaces Only allow authorised people to access the area Provide instruction on safe access to the area Wear safety footwear (with slip-resistance) appropriate for the weather conditions, access points and work being performed Provide cleaning equipment suitable for the removal of diesel, oil and grease
Vehicle steps and ladders	Slips, trips and falls on and from steps and ladders	<ul style="list-style-type: none"> Make sure vehicle steps are slip-resistant Keep steps in good condition Clean vehicle steps and ladder access regularly Maintain three points of contact. Grip the vehicle for support. Face the vehicle if safer Wear safety footwear (with slip-resistance) appropriate for the weather conditions, access points and work being performed
Tail lifts	Slips, trips and falls on and from tail lift area	<ul style="list-style-type: none"> Make sure tail lifts are serviced and thoroughly examined at mandatory intervals prescribed by Lifting Equipment Regulations⁴ Provide instruction and training on safe operation and access of tail lifts Never jump down from tail lifts Wear safety footwear (with slip-resistance) appropriate for the weather conditions, access points and work being performed Make sure tail lift surface provides adequate slip-resistance in all working conditions, for example wet and icy Apply edge marking materials to help warn users of edges When working on elevated tail lift, take extra care to avoid fall from height
Tanker platforms		<ul style="list-style-type: none"> Only allow authorised people to access top of tanker Provide fall prevention instruction and training to authorised people Provide fall arrest and protection systems for work at height as appropriate Maintain three-point contact at all times for ascending, or descending tanker Wear safety footwear (with slip-resistance) appropriate for the weather conditions, access points and work being performed

⁴ Safety Health and Welfare at Work Act, General Application Regulations 2007.