

HEALTH AND SAFETY FOR THE PROFESSIONAL DRIVER Fitness to drive

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Session 2 Preventing physical risks

DRIVER CPC MODULE NUMBER



Road Safety Authority - CPC Training Manual 3.3 - Health & Safety for the Professional Driver: Session 2

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This module – Health and Safety for the Professional Driver - is divided into two separate sessions. Generally speaking, Session 1 is covered before the main break, which is then followed by Session 2. The table below sets out the 7 training aims for Session 2 along with an indication of the E. U. Directive requirements being covered.

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> SESSION 2 OBJECTIVES

Objective heading Ability to prevent physical risks

Directive text

Ergonomic principles; movements and postures that pose a risk; physical fitness; handling exercises and personal protection.

Training Aim

On completion of this session, you will understand;

- 1. The importance of physical fitness and exercise.
- 2. The importance of ergonomics and a safe working environment
- 3. The legal background to requiring a safe working environment.
- 4. Your duty to achieve a safe working environment.
- 5. The importance of appropriate personal protection equipment for your work and how to use it.
- 6. How to carry out manual handling tasks safely.
- 7. The importance of correctly operating the safety equipment on your vehicle.

Workers in the transport sector are exposed to prolonged sitting, tiring or painful positions, and long and non-standard working hours (night and evening work, and weekend work).

In addition, drivers have limited opportunities to eat healthy meals and take exercise breaks while on the road. The most common health problems reported by drivers are lower back pain, overweight, cardiovascular and respiratory diseases, and work related stress. These problems have been found to be linked to factors relating to the working environment such as poor work organization, and working conditions (static work), and to individual risk factors such as lack of exercise, unhealthy diet, alcohol abuse, smoking, age, and pre-existing diseases.

When developing WHP (Workplace Health Promotion) programmes it is important to consider the role and the impact of both the organisation and the individual on drivers' health and wellbeing, and to address these factors.

European Agency for Safety and Health at Work - http://osha.europa.eu

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ARE YOU A PROFESSIONAL DRIVER

There were a total of 240 work-related deaths reported to the Health and safety Authority (HSA) in 2009-2013. 99 of these deaths involved work-related vehicles. 76 of these deaths occurred in the workplace. 23 occurred on the public road and resulted from activities associated with driving for work and working on or near a road.

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The following questionnaire has been kindly provided by the Health and Safety Authority (HSA) to inform drivers and to raise awareness of the importance of their responsibilities at work.

Ра	rt 1 – Yourself.	Yes	Νο
1.	Do you arrive at work refreshed and well rested.		
	Why? Driving when you are tired can be as dangerous as driving when you are over the drink drive limit.		
2.	Do you always wear your Personal Protection Equipment (PPE) such as your High Visibility jacket?		
	Why? PPE is there to protect you and to let other people know you are there.	\square	\square
3.	Do you always travel at a safe speed and keep to the speed limits?		
	Why? Speed is a factor in many incidents. Speed limits are there to protect yourself and other road users.		
4.	Do you stick to the workplace rules.		
	Why? Rules are there to protect you and others. Highlight the ones that are difficult to apply to your boss.		
5.	Do you report unsafe behavior, near-misses and accidents.		
	Why? Management need to know if people are behaving unsafely. If there are near-misses or accidents it could be you or a colleague who suffers.		
Ра	rt 2 – Your Schedule		
6.	Do you turn up for work giving yourself a chance to prepare for the shift.		
	Why? Being punctual gives you a chance to ensure everything is in order before you drive.		
7.	Do you check for any last-minute alterations to your schedule.		
	Why? Picking up on changes to orders and other arrangements can save wasted journeys.		
8.	Are you sure you always know what the journey involves before you start the drive.		
	Why? If you know what you are doing you can pay more attention to your surroundings when you are driving.		

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Pa	rt 3 - Your Vehicle.	Yes	No
9.	Do you know what to do if you have an unsafe or insecure load.		
	Why? Unsafe on insecure loads are a hazard. You need to understand clearly what to do to prevent the situation from getting worse.		
10.	Do you carry out a vehicle and load walkaround check using a checklist.		
	Why? Checking your vehicle and load helps to ensure that you and other road users are safer on the roads.		
Pa	rt 4 – Your Workplace.		
11.	Do you always explain to others in the area what you are doing.		
	Why? Explaining to others what you are doing gives them a chance to get to a position of safety	\frown	\frown
12.	Are you actively thinking about what you see and hear.		
	Why? Understanding your surroundings helps you to make better decisions and anticipate others correctly.		
13.	Do you try to anticipate pedestrian and other vehicle movements as well as changing road conditions.		
	Why? Don't assume that others will see you – expect the unexpected.		
14.	Do you use your voice as well as other means to alert others.		
	Why? Your voice is a good way to get attention and others will appreciate your communication.	\square	
15.	Do you always stick to known roads and routes.		
	Why? Driving on unfamiliar routes can lead to a variety of problems.		
16.	Do you give priority to pedestrians in the workplace and on the road.		
	Why? Giving priority to pedestrians reduces the chances of them being hit.		
lf y	ou answered 'yes' to every question, well done! If you answered 'no' to some		

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questions, what do you need to do to make the difference.

'Professional workplace driving helps to keep you, your colleagues, your customers and the general public safe'.

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SECTION A – PHYSICAL FITNESS

Drivers should report for work fit for all work activities, including driving duties. If they are not fit for work it is their responsibility to inform their manager. Ideally, they should take a short break every hour they are working to prevent fatigue and repetitive stress injuries. They should get up, walk around and stretch. The reality is, however, that in most jobs this is not practical.

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Here is a set of 10 essential stretches that a driver can do during their break, while on the phone or any time they can find a few minutes.

It is essential that a driver does not attempt to carry out any of these stretches while driving.

2-MINUTE STRETCH PROGRAM

Stretch 1: Relieving eye strain

Eye strain can easily be relieved. One way to relax the eye is to stretch the muscles that focus the lens. The key is to focus on things at different distances. You can follow your finger if nothing else will do.

- Focus near, then far, near, then far.
- Repeat a couple of times.

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Take a couple of long blinks.

Stretch 2: Side-to-side neck stretch

Stretching your neck side to side releases tension in your head, neck and shoulders.

- Lay your head to the side, pivoting at the base of the neck.
- Hold it for a few seconds, then lay it to the other side.
- Repeat a couple of times.

This will loosen your neck and shoulder muscles. If you can do this with your eyes closed, it will help them relax as well.

Stretch 3: Front-to-back neck stretch

Continue to stretch your neck with a front-to-back neck stretch that releases tension in your head, neck, back, hips and shoulders.

- Pivot your head back and hold for a few seconds.
- Move your head forward, placing your chin on your chest.
- Repeat a couple of times.

This will continue to loosen your neck and shoulder muscles. Once those are relaxed, you can begin to loosen up your trunk.

Stretch 4: Standing toe touch

A standing toe touch is a great back stretch.

- Bend forward at the waist and let your arms hang toward the floor.
- Roll your back and your shoulders.
- Do not lock your knees.

If your legs are stretching too much, bend at the knee until the stretch is focused in your back. Do not worry about actually touching your toes - just hang down until you feel a good stretch in your back. If you need more of a stretch, you can touch your toes or place the palms of your hands on the floor. This elongates your spine and loosens your back from the shoulders to the lower trunk.

Stretch 5: Back stretch

Continue stretching your back with a reverse back stretch.

- Place your palms on the back of your pelvis and lean back from the waist.
- Drop your head back.
- Hold for a few seconds.

If you have poor balance, spread your feet and take a wider stance.

This opens up your chest cavity and hips, elongating the spine along the natural "s" curve.

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Stretch 6: Trunk twist

Stretch the core muscle groups in your trunk with a twist.

- Isolate the trunk and twist at the hip.
- Take one arm and reach across your chest. Twist in that direction.
- Drop your other hand and use it to reach behind your back.
- Twist to the other side while switching arm positions.
- Repeat a few times.

Now you are really working the trunk and loosening up the spine, which are both crucial to good balance and circulation.

Stretch 7: Upper torso and arm stretch

Stretch your upper torso, back, shoulders and arms in one easy motion.

- Hold your arms at a 90-degree angle with your hands, elbows and shoulders all at the same height.
- Make fists with your hands.

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- Pull your arms back, squeezing your shoulder blades together and tightening your fists.
- Push your hands forward until your arms are straight out in front of you.
- Roll your shoulders forward and stretch out your upper back.
- Open your hands with your wrists flexing up and spreading your fingers as you push forward.
- Repeat a couple of times.

If you really work the muscles (squeezing and releasing), you can loosen up the area between the shoulder blades. It also stretches the arms from fingertip to shoulder blade and provides an extra good stretch of the wrist.

Stretch 8: Shoulder stretch

You have already stretched your shoulders a couple of times during this stretch programme, but so much of the body's stress gets localised in the shoulders that they need some extra stretching.

- Reach your arm across your chest with your upper arm close to your collar bone.
- Take your other hand and grab the crossed arm's elbow.
- Pull your arm closer to your body and stretch your shoulder.

- Now do the other shoulder.
- Repeat a couple of times.

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This stretches the back side of the shoulder from the shoulder blade around to the upper arm.

Stretch 9: Arm and wrist stretch

Stretch your upper arm, elbow, forearm and wrist in one easy motion.

- Place the palms of your hands flat together in front of your chest.
- Flex the wrists at a 90-degree angle.
- Keeping the palms together, move them up until your elbows touch.
- Return your hands to their original position.
- Repeat a few times.

This stretch will loosen most of the arm and provide another good wrist and shoulder stretch.

Stretch 10: Ankle stretch

Stretch your ankles and get your blood flowing in your lower body.

- Lift your knee up as high as you can, and flex your ankle back as far as you can.
- Extend your leg forward, pivoting at the knee; flex the ankle forward as far as possible.
- Repeat a few times.

This one stretch will loosen up most of the leg. If you throw in a little side-to-side motion while doing this, you can loosen up the hip as well.

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EXERCISING

Check with your doctor before you start an exercise programme if you haven't been active, or are at risk of heart disease or other chronic health problems.

These are just some exercises that you could do. These exercises should be done twice a day, in sets of 10 repetitions to improve circulation and muscle strength.

Knee scrunches (tightens stomach)

- On a flat, firm surface, lie on your back. Keep knees bent.
- Scrunch right knee towards chin and chest, placing hand on knee.
- Push knee towards hand and hold resistance for 5-10 seconds.
- Relax and repeat 10 times. Repeat exercise with opposite knee.

Leg adductors (tightens inner thighs)

- Sit in a chair, feet on the floor. Place an object, such as a basketball or soccer ball, between knees.
- Squeeze knees together and hold for 5 seconds.
- Relax and repeat 10 times.

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Leg internal rotation (tightens hips)

- Sit in chair, knees bent, facing a solid object, such as a door jam.
- Place outside of foot against base of object, while keeping knee bent and thigh supported on chair throughout the exercise.
- Push outside of foot into object as if attempting to rotate leg and hold for 5 seconds.
- Relax and repeat 10 times. Repeat exercise on opposite side.

Leg external rotation (tightens back and side of hip)

- Sit in chair, knees bent, facing a solid object, such as a door jam.
- Place inside of foot against base of object, while keeping knee bent and thigh supported on chair throughout the exercise.
- Push inside of foot into object as if attempting to rotate leg and hold for 5 seconds.
- Relax and repeat 10 times. Repeat exercise on opposite side.

Sitting knee bend (tightens back of thigh)

- Sit in chair with knee bent resting heel on floor. Dig heel into floor attempting to pull heel toward the chair.
- Do not slide forwards in chair or let heel slide.
- Hold for 5 seconds.

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Slowly relax and repeat for 10 repetitions.

Repeat on opposite side.

Straight knee (tightens front of thigh)

- Sit in chair in front of wall or solid object with shoe on.
- Place toe of shoe against wall as if tapping toe.
- Push against surface with foot attempting to straighten knee and hold for 5 seconds.
- Slowly relax and repeat 10 times. Repeat on opposite side.

Foot up (tightens front of lower leg)

- Sit in chair with heel of foot resting on edge of chair with foot pointed straight out.
- Place palm of hand on top of foot at the toes.
- Try to lift foot up while pushing down with hand. Do not move ankle. Hold for 5 seconds.
- Relax and repeat 10 times. Repeat on opposite side.

Foot out (tightens outside of lower leg)

- Sit in chair with ankle crossed over knee. Keep ankle held at 90-degree angle.
- Grasp outside (side facing floor) edge of foot with hand.
- Push foot into hand while pulling up with hand so ankle does not move. Hold for 5 seconds.
- Relax and repeat 10 times. Repeat on opposite side.

Foot in (Tightens inside of lower leg)

- Sit in chair with ankle crossed over knee
- Place palm of hand on inside of foot, keep ankle at 90degrees.
- Push foot into hand while pushing down with handso ankle does not move. Hold for 5 seconds.
- Relax, and repeat 10 times. Repeat on opposite side.

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Curl ups (tightens abdomen, hips and shoulders)

- Lie on back on flat, firm surface with knees bent.
- Bring knees toward chest and place both hands on both knees.
- Push hands against knees while maintaining leg position and hold for 5 seconds.
- Relax and repeat 10 times.

Double leg lifts (tightens abdomen)

- Sit in chair with buttocks near edge of seat.
- Grasp both sides of seat with hands, lean back and lift feet off floor with knees bent towards chest.
- Bring knees toward chest bending hips and knees.
- Change direction, putting legs out straight, keeping feet off floor.
- Relax and repeat 10 times.

Regular Exercise

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Before you start to undergo an exercise programme, ensure that

- You have no medical problems, back problems or hip pain
- You stop immediately if you feel unwell, become breathless or feel dizzy
- You allow at least 1.5 hours after eating before starting the exercise
- You work at a pace that you feel comfortable with – do not get into a competition with someone who is fitter than you are.

Choose activities you enjoy. If you can't find a place outdoors to walk, stash a few weights in your truck and work out in the cab.

Carry a jump rope with you. It takes up little space and can be done almost everywhere. Make your workout a habit you do daily, or every other day.

Play music to keep you entertained as you work out. Surround yourself with supportive people who will encourage you and keep you motivated.

Don't overdo it. Many people give up exercise after a few days because they have overworked, sore muscles. Reward yourself for your progress, whether it is weight loss or keeping up your new habit. The maximum heart rate that you should ever achieve when exercising is your age subtracted from 220.

Many people live in their own `comfort zone` and are initially reluctant to break out of it and take on a new challenge.

However, the benefits of regular exercise are internationally recognized and result not only in a healthier, fitter person, but family and friends also benefit from the knock-on effects of an improvement in a persons wellbeing.

Regular exercise will help to

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- Increase the blood flow to the brain and slow down the degeneration of the central nervous system
- Increase the strength and tone of your muscles and help to maintain your fitness
- Improve lung and heart function
- Reduce body fat especially important for men as it benefits the heart
- Revitalise the skin
- Strengthen the bones and reduces the risk of osteoporosis and arthritis
- Improve the recovery rate from many existing medical conditions

Persons who suffer from asthma should start their exercise regime slowly and build it up over a few weeks.

The inhaler should always be readily available.

Take sufficient breaks to allow the lungs to recover.

Reduce the intake of dairy products as this reduces the amount of mucus which builds up.

Breathe through the nose whenever possible as this moistens the air and helps the lungs to function.

Research has shown that spending 2-3 hours per week at regular exercise not only improves the quality of your life, but can add years to your life expectancy. However, do not over-do it. You should always exercise to a plan drawn up by a professional trainer. If you have any doubts, check first with your doctor. Exercising incorrectly or stretching to excess can do more harm than good.

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This posture care programme has been kindly provided by the Chiropractic Association of Ireland to assist professional drivers in maintaining their personal health and wellbeing.

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StraightenUplreland

ABOUT THE SUI PROGRAMME

Straighten Up Ireland for adults is a simple, three minute posture care programme designed to help you feel and look your best.

The programme is divided into three quick sessions:

Stars (warm up) Flying Friends (posture care) Core Balance (to finish off the session)

Through the help of this leaflet, you can learn these daily exercises to help improve your posture and spinal health.

By promoting balance, strength and flexibility in your spine, the risk of getting problems with your back now and in the future can be substantially reduced.

There are other things you can do with the CAI Golden Rules:

- Make time to check your bag/briefcase each day for items you won't need. Additional weight in your bag is extra weight that your shoulders and back have to bear.
- If you work at a desk, take the time to adjust your chair when you start work in the morning. Your seat should be adjusted so that your feet are flat on the ground, your hips slightly higher than your knees and your eyes level with the centre of the computer screen. Use a seat with arm rests.

- 10 minute rule if a journey would take you less than 10 minutes to walk, then leave the car at home!
- Whatever you are doing, take regular breaks if you can. Never sit in the same position for more than 40 minutes, less if possible. When you do take a break walk around and stretch a little.
- Try to use the stairs instead of a lift or escalator.
- If you get a bus to work, get off a few stops earlier and walk the remaining journey.
- Exercise needn't to be dull, join a fun class like salsa or belly dancing and go with a friend. It's much more fun with two.

IMPORTANT NOTE: These exercises are designed for healthy adults, please check with your GP or chiropractor, before continuing with this programme.

More information: www.chiropractic.ie The Chiropractic Association of Ireland 021 485 7775

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StraightenUplreland

A three minute posture care programme

Straighten Up is an enjoyable three minute spinal health programme designed to help you feel and look your best.

Basic Rules:

- 1. Think positively.
- **2.** STAND TALL. Straighten Up with a confident posture (ears, shoulders, hips, knees, and ankles should be in a straight line).
- **3.** Breathe calmly, deeply and slowly from your stomach region.
- 4. Move smoothly. Do not jerk or bounce.

Notice: Check with your GP, chiropractor or other healthcare practitioner before starting Straighten Up to make sure the exercises are appropriate for your specific needs.

1. THE STARS

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WARM UP – STAND TALL

Straighten up in the STAND TALL posture. Ears, shoulders, hips, knees, and ankles should be in a straight line. Pull your belly button in towards your spine.

TILTING STAR

- From the STAND TALL posture, spread your arms and legs into the Star.
- Facing forward, place one hand in the air with the other at your side. Breathe in as you slowly

stretch one arm overhead, while slowly bending your entire spine to the opposite side and sliding the other hand down your thigh. Relax at the end of the stretch, breathing out and in again. Perform slowly twice to each side. Easy does it.

TWIRLING STAR

In the STAR position with belly button drawn inward, gently turn your head to look at one hand. Slowly twist your entire spine to watch your hand as it goes behind you. Relaxing in this position, breathe out and in.



Perform slowly twice to each side. Enjoy the slow gentle stretch.

TWISTING STAR

- From the STAR position, raise your arms in 'hands up' position. Bring your left elbow across your torso towards your raised right knee. Repeat the movement using your right elbow and left knee.
- Remain upright as you continue to alternate sides for 15 seconds. Breathe freely. Enjoy.
- Individuals with balance disorders should use caution if attempting this exercise.

2. THE FLYING FRIENDS

TRAP OPENERS

- Breathe deeply and calmly, relaxing your stomach region. Let your head hang loosely forward and gently turn from one side to the other.
- Using your fingers, gently massage the area just below the back of your head. Move down to the base of your neck.
- Then relax your shoulders and slowly roll them backwards and forwards. Enjoy for 15 seconds.



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THE EAGLE In the STAND TALL posture, bring your arms out to

the sides and gently draw your shoulder blades together. Breathe in as you slowly raise your arms, touching your hands together above your head. Slowly lower your arms to your sides as you breathe out. Perform three times.

THE HUMMINGBIRD

Next, make small backward circles with your hands and arms drawing your shoulder blades together. Sway gently from side

to side in the HUMMINGBIRD. Enjoy for 10 seconds.

THE BUTTERFLY

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Place your hands behind your head and gently draw your elbows backward. Slowly and gently press your head backwards and resist with your hands for a count of two and release. Breathe freely. Perform three times.



Gently massage the back of your neck and head as you relax your stomach region with slow, easy breathing.

3. CORE BALANCE/WRAPS

TIGHT ROPE

- In the STAND TALL position with your belly button drawn in.
- Take a step forward as if on a tight rope. Make sure your knee is over your ankle and not over your toes.
 Allow the heel of your back foot to lift. Balance in this position for 20 seconds.
 Repeat on the opposite side.

THE ROCKER

- Position in the STAND TALL posture with your feet wider than shoulders, gently rotate your trunk from side to side. Easy does it.
- Let your arms flop loosely, as you shift your weight from knee to knee.
- Swing gently from side to side. Breathe calmly and deeply. Enjoy for 15 seconds.

EXTENDING THE SWORD

- Stand in the STAR position, keeping your stance wide with your belly button in.
- Turn your foot outward as you shift your weight to one side. Feel the groin area gently stretching. Place your knee over ankle and elbow above your knee as you extend your arm, torso, and ribs. Easy does it.



Older adults should place their hand on their knee. Stretch for 10 seconds to each side.

SHAKING LOOSE

- Shake limbs loosely for 15 seconds.
- This one is pure fun. We are done!



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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 Why is it important for a professional driver to be physically fit for work?

	Your Response	

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Q.2 How could a professional driver relieve eyestrain?

	Your Response	

Q.3 What effect can incorrectly exercising have?



Q.4 What stretches should someone carry out to relieve tension from the head, neck, back hips and shoulders?



Q.5 What are the benefits of carrying out a stretch?

Your Response

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Q.6 What stretch should a driver do to work on core muscles?

	Your Response	

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Q.7 Describe how someone should carry out a shoulder stretch?

Your Response	

Q.8 What stretch will loosen up most of the leg muscles?

Your Response	
	Your Response

Q.9 Describe how you would carry out a back stretch

Your Response

Q.10 What are the benefits for a professional driver of exercising 2 to 3 hours per week?

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the section on Physical Fitness.

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SECTION B – DRIVER ERGONOMICS

Ergonomics is the science of fitting the job to the worker and adapting the work environment to the needs of humans. An overall goal of ergonomics is to promote health and safety and to optimise productivity. The study of ergonomics as a way to reduce human error began in the military during the Korean war. In planes used for pilot training, the eject button was poorly placed and pilots sometimes accidentally ejected themselves, often at too low an altitude for their parachutes to open. The button's location was changed and fewer lives were lost.

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The basic human sciences involved in ergonomics are anatomy, physiology and psychology. These sciences are applied by the ergonomist towards two objectives: the most productive use of human capabilities and the maintenance of human health and well-being. In a phrase, "the job must fit the person" in all possible respects, and the work situation should not compromise human capabilities and limitations.

Physical Hazards associated with Driving

Prolonged sitting or standing can increase the chances of back disorders among transport workers. Heavy lifting tasks are also an occupational risk within the transport sector, especially during loading or unloading of vehicles. Lifting aids and ergonomic safety equipment may not be available to cope with the unforeseen shape or weight of a load, making it difficult to deal with it.

Layout, design and mechanics of the cab (ergonomics)

The bus or truck driver's cab may be uncomfortable, inflexible, and may be too hot or too cold. Poor seating and cab design can cause musculoskeletal disorders and expose drivers to vibration. Recommendations include the following:

- There should be allowance in the design for drivers of different height or weight.
- The driver's seat should be vertically and horizontally adjustable and have adjustable lower back support and adjustable springs.
- The controls for adjusting the seat must be easy to operate.
- The steering wheel should be no more than 460 mm in diameter and be adjustable along the axis of the steering column. Its angle of inclination should also be adjustable.
- The pedals should be within easy reach for short and tall drivers alike. They should all be at the same angle.
- The dashboard should have easy-to-read displays which are arranged according to functions and frequency of use. It should be easy and safe to operate all manual controls, especially emergency controls.

- Effective heating and cooling systems should be provided for the cab.
- New drivers should always be provided with proper training, and retraining must be provided for all drivers when new models are introduced.
- Vehicles should be well maintained having regard to their running and safety, and the cabin features described above.

Vehicle manufacturers normally provide a supportive seat covered with a hard wearing cloth. It may be adjustable with lumbar support, arm rests, head-rests, air suspension, and heating or cooling controls. The more adjustments it has, the better. However, they are no good if you do not use them.

Principles of ergonomics

Principles of ergonomics are now applied to the design of many elements of everyday life, from car seats to garden tools. Many different occupations are involved in implementing these "human factor" principles in the workplace, such as human factors/ ergonomics specialists; safety engineers; industrial hygienists, engineers, designers; human resource managers; occupational medicine physicians and therapists; and chiropractors. Research in ergonomics is ongoing.

Knowledge of basic ergonomic principles is important for both workers and employers because both share responsibility for a safe work environment. Potential hazards exist in manufacturing settings where equipment is operated and heavy materials are handled, but hazards exist in other environments too. And technology (especially computer use) has brought about widespread changes in how work is accomplished.

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Attention to ergonomic principles helps to reduce workplace injuries and illnesses. Many disorders and injuries are preventable when work conditions are designed for human safety and comfort. People need training in how to recognise hazards and safety problems, as well as how to control their own behaviour for maximum comfort and health.

Posture in standing and in seated positions is important to avoid musculoskeletal disorders. The natural curve of the spine should be maintained, with the head balanced over the spine. When a person is seated:

- Feet should be able to rest on the floor.
- The spine should be in its natural position, with the neck upright and supporting the head balanced on the spine (not forward or twisted to the sides).

Symptoms of musculoskeletal disorders can begin as numbness or stiffness in joints, or tingling, aching sensations in muscles. Pain or burning sensations may be evident too. Often symptoms progress gradually, becoming more severe with prolonged exposure to the condition causing them. Damage to nerves, tendons, joints or soft tissue can result.

The way you sit in your vehicle - especially on long drives - will have a noticeable impact on your body. Everything from how your mirrors are set up to where you put your hands on the wheel play a role in how you'll feel when you eventually step out of your vehicle. Making a few small changes to your driving habits can make your drive much more comfortable. Driving long hours at a time can cause muscle tension and soreness, especially in the upper and lower back and shoulders.

Driving In comfort

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Follow the advice below, which ranges from before you start driving to once you arrive at your destination, to give your body the best chance of arriving refreshed and relaxed.

This will help you to achieve a comfortable driving position and to minimise discomfort.

- Ensure that your head is not above the headrest. The middle of the headrest should not be higher than the middle of your head. If your head is too high, you could whip your neck back on the headrest in an accident and that could cause a serious injury.
- Take the time to adjust your back support. Maintain good posture in your seat - you need to have both your upper and your lower back supported.
- Drivers should be familiar with visual hand and foot controls, and know their location, function and how to operate them. The steering wheel should be directly in front of the driver. The driver should also be able to reach the pedals and controls without undue effort.
- Try to get out of your vehicle as often as you can on a long drive, to walk around and stretch. An easy stretch is the back extension: place your hands on your hips and gently bend backwards.

Driving and Posture

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The ergonomics issues associated with driving are significantly influenced by your posture behind the wheel.

Posture is the position of your spine in relation to your body.

A poor posture tends to make the shoulders rounded and narrower, it can lead to a pot belly, and make the chest looks softer and weaker.

If you find yourself with aching shoulders, arms, or back after a long drive, the chances are that your posture is wrong

Make sure you have a comfortable and healthy posture when you begin the drive.

If your vehicle is fitted with a seatbelt you must wear it. Make sure it is correctly adjusted.

Make sure you adjust your seat, mirrors, seatbelt and steering wheel to suit your own comfort before you begin to drive. You should never ever adjust or try to adjust these while driving.

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 Define ergonomics

Your Response

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Q.2 Where did the study of ergonomics begin?

Your Response

Q.3 What are 3 common forms of ill-health that affect drivers?

Your Response			

Q.4 How is a back stretch performed?

Your Response

Q.5 What are the sciences involved in ergonomics?



Q.6 What adjustments should a driver make on first entering the cab?

	Your Response	

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Q.7 Why should you not adjust the steering wheel while driving?

	You	ır Response		

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Q.8 What effect does an incorrect posture have on the body while driving?

Your Response	
.9 When driving, what is the correct position for the headrest?	

Your Response

Q.10 What should a new driver do who is unfamiliar with a cab layout?



Q.11 Painful shoulders, arms, or back is a sign of what?

	Your Response	
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Q.12 What is a good back stretch?

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

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The following Scenario is provided for you to consider the circumstances and related questions. Your CPC Trainer will then ask you about your own thoughts regarding the circumstances.

> SCENARIO

Driver Mick arrived late to take over his roster.

Not wanting to delay his departure, he quickly started up the vehicle and moved out into the traffic. Once underway he realised that his nearside mirror was not properly adjusted and he had to lean forward to see it clearly. He made a mental note to correct this at the first available opportunity. As the driver he took over from was smaller than him, at 5ft 8 (1.73m) and he was over 6ft (1.83m), he found himself sitting uncomfortably close to the steering wheel.

He corrected this by moving the seat back when stopped at the first set of traffic lights. As it began to rain the windows fogged up, and after wiping them a few times with his hand, he realised that his newspaper was obstructing the air vent for the windscreen.

- 1. What errors did the driver make in this scenario?
- 2. What could be the consequences of the errors the driver made, both for the driver himself and other road users?
- 3. What are the key things that any driver should do to ensure that their vehicle is set up in the most effective way from a safety and ergonomics perspective?

This concludes the section on Driver Ergonomics.



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SECTION C – WORKPLACE TRANSPORT SAFETY

Incidents involving vehicles consistently cause the greatest number of work-related deaths in Ireland. Many of the fatalities are due to falls, collapse, breakage of material, and loss of control of a vehicle or other transport equipment. In terms of occupations, the majority of these fatalities involve drivers and mobile plant operators.

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Approximately 1,000 work-related, non-fatal injuries are reported to the Health and Safety Authority each year from the transport sector. While the most common causes for non-fatal injuries in the sector are "manual handling" and "slips, trips and falls" a significant number of accidents occur while driving on the road. Incidents involving vehicles can cause great personal suffering and trauma. However, such incidents can also cause a huge financial burden on the victim, the employer and the wider economy.

Incidents involving vehicles can

- Threaten business continuity due to the death or injury of a key member of staff
- Cause a loss of productivity and working time
- Damage assets, premises, vehicles and equipment
- Damage the reputation of a business, particularly where safeguards were not in place
- Incur costs associated with prosecution and civil litigation

The HSA in consultation with the RSA and An Garda Siochana introduced a 5-year plan (2010-2014) which aimed to bring about a sustainable reduction in the number of people killed or seriously injured as a result of vehicles being used for work. See www.hsa.ie (Work Related Vehicle Safety) for further information.



The most common workplace transport accidents involve:

- Being struck or run over by a vehicle;
- Falling from vehicles;

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- Vehicles overturning;
- Vehicles running out of control;
- Vehicles touching power-lines;
- Vehicles driven by untrained drivers;
- Overhead obstruction.

What is covered by 'workplace transport' equipment?

The Safety, Health and Welfare at Work (General Application Regulations) 2007 define "work equipment" as any machinery, appliance, apparatus, tool or installation for use at work. This has a very wide scope and includes all transport vehicles used for work. These regulations go on to define "place of work" as an area on the premises of an undertaking intended to house workstations, and which employees have access to during the course of their employment. It explicitly excludes transport used outside the undertaking, or a place of work inside a means of transport.

Your employer must address workplace transport safety

Workplace transport safety management should be addressed in the following manner:

- Work should be planned and organised;
- The most appropriate workplace transport equipment should be selected for use;
- People operating workplace transport equipment must be competent to do so;
- Workplace transport equipment used must be properly inspected and maintained.

What should be considered in a risk assessment of workplace transport?

There are five key steps to a risk assessment:

- 1. Look at the hazards
- 2. Decide who might be harmed and how
- 3. Evaluate the risks and decide whether or not the existing precautions are adequate or more should be done
- 4. Record your findings
- Review your assessment on a regular basis at predetermined intervals as part of the safety management procedures

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2014 Statistics

28 deaths involving Vehicles at work reported to HSA up to 16 December 2014.

- 16 of those were in Agriculture. Tractors involved in the majority of deaths.
- 4 in Construction

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- 2 in Transportation and Storage
- 2 In Wholesale and Retail Trade and Repair of motor vehicles

This accounts mainly for accidents that occurred in the workplace.

The involvement of vehicles in deaths at work has increased in 2014 for the first time, in 3 years to 54% of the total figures. This is up 13% from the previous 5 year average for 2009 to 2013 of 41%. On average around 20 workplace deaths occur every year involving vehicles. The top 3 vehicle related activities that need to be effectively managed in Irish workplaces are:

Driving forward

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- Use of forklifts in loading and unloading activities
- Reversing and Slow Speed Manoeuvres

All drivers should familiarize themselves with their company's DFW policy and adhere to it at all times.



Further information

For further information on Work Related Vehicle Safety matters, including Driving for Work Risk Management. Please follow the HSA links below.

http://www.vehiclesatwork.ie

http://drivingforwork.ie

or by contacting the Workplace Contact Unit at Lo-Call: 1890 289 389

(Between 9am and 5pm, Monday to Friday).

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In carrying out a risk assessment, the following needs to be considered:

- Work activity driving, loading, order-picking etc;
- Equipment to be used vehicle, communications, personal protective equipment;
- Duration of the work shift-based, intermittent, non-routine aspects;
- Location of the work activity i.e. layout, access routes, pedestrian segregation;
- Working environment, e.g. indoors/outdoors, lighting, seasonal changes;
- Condition and accessibility of work areas access/egress, stability;
- Physical capabilities of the workers age, gender, ability, eyesight.

What should the workplace transport safety management system include?

Vehicle safety in the workplace must be competently managed. The size and form of the management system will vary depending on the size of the operation - however it should address the following:

- Definition of the policy and rules for the management of vehicles at the workplace and identification of responsible person for managing vehicle safety. How to carry out and record risk assessments - this means writing down the most significant hazards, identifying who is at risk and listing the safety precautions which should be in place.
- Determine the training needs of workforce and the preventative maintenance programme required for ensuring ongoing workplace vehicle safety.
- Any changes to vehicles, workplace or personnel, which might have implications for the safety of the system, must be allowed for.
- Employees who may be affected must be kept fully informed of the system and of any changes to it.
- 5. Details of how acceptable standards for workplace vehicle safety are achieved should also be included in the site-specific safety statement.

Vehicle inspection and maintenance

- Do drivers carry out safety checks, including a walkaround check before using a vehicle?
- Is there a regular preventive maintenance programme for each vehicle, carried out at predetermined intervals as prescribed by the manufacturer/supplier, and is this recorded?
- How are defects reported and repairs assigned and reported?
- Do drivers and operators keep either a written or electronic record of checks conducted, including where nil defects are recorded?

Employee selection, training and supervision

Drivers and other types of employee, including contractors, should be capable of performing their work activities in a safe and responsible manner. For example:

- Check the previous experience of drivers and test them to ensure that they are competent (on the job assessment is preferable).
- Provide training on how to do the job and information about particular hazards.
- Only competent persons permitted to operate self-propelled work equipment.
- Organise a planned programme of refresher training for drivers and other employees (an essential element of a safety programme) to ensure their continued competence.
- Do drivers drive with care, e.g. use the correct routes, drive within the speed limits at the site and follow any other site rules?
- Are employees using safe working practices, e.g. when loading/unloading, securing loads, carrying out maintenance etc.?
- Are supervisors, drivers and other employees, including contractors and visiting drivers, aware of their responsibilities in terms of maintaining a safe workplace and safe working practices?
- Is everyone at the workplace supervised and held accountable for their responsibilities, and is there a clear system of controls when employers, contractors etc. fail to maintain standards?

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Hazards

Every year someone in the transport industry is killed or badly injured in an incident involving moving vehicles in confined spaces. When parking close to a wall or another vehicle make sure that:

- You leave room for other vehicles;
- You're not trapping or crushing anyone.



The bodies of those vehicles fitted with air suspension may move a considerable amount when parked or when started, as air is exhausted or injected into the air bags. Parking one of these vehicles too close to a pillar, wall or another vehicle may cause damage or injury.

Vehicle maintenance and repair work isn't normally your responsibility. However, drivers are responsible for the condition of their vehicles when in use on the road. You should be able to recognise faults with your vehicle and fill in defect reports correctly, or inform the person responsible for recording faults. Do not attempt to carry out work or to jump-start vehicles unless you have been properly trained and authorised to do so. Batteries may explode and cause serious injuries. You shouldn't do any work on engines or any other vehicle components unless you're fully trained or supervised. Be careful of the following hazards in workshops and garages:

- Asbestos dust
- Paint spray
- Solvents

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- Exhaust fumes
- Degreasing agents
- Inspection pits
- Moving/reversing vehicles
- Vehicle batteries
- Vehicle chair lifts or "kneeling" mechanisms

- Tyre changing and inflating
- Vehicle washers
- Trailing cables or air lines
- Spills of oil or fuel
- Brake test machine
- Column and platform lift
- Dealing with air-lines and pressurised equipment, including air-bags.

Workers must know their responsibilities and know the workplace transport safety system – keep out of the workshop except on official business.

Safe Refuelling

- Turn off the engine
- Do not smoke
- Turn off your mobile phone or leave it inside the cab
- Do not leave the refueling point while the pump is in operation
- Do not overfill the tank or spill fuel
- Replace the tank cap securely
- Replace the pump hose securely

Always wear rubber gloves when handling fuel, oil, or grease products.

Remember that the ground around filling points can be greasy from spilled fuel, and this can lead to slips and falls. The soles of footwear can become greasy and this can contribute to slips and falls even away from the filling point, including when re-entering the cab. Greasy footwear can also slip off the pedals.

Reporting accidents

Regulations under Part X of the Safety Health and Welfare at Work (General Application) Regulations 1993 apply to the reporting of accidents. Drivers should report all accidents to their employer/ transport manager.

What types of Accidents must be reported to Management?

General injuries involving employees and selfemployed accidents, where a person is injured at a place of work and cannot perform their normal work for more than 3 consecutive days, not including the day of the accident, are reportable. Drivers are encouraged to report near-misses.

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Road traffic/ vehicle accidents involving employees and self-employed

Such accidents are reportable if the person was injured while driving or riding in the vehicle in the course of work, and cannot perform their normal work for more than 3 consecutive days, not including the day of the accident.

General injuries involving members of the public Accidents related to a place of work or a work activity where a person requires treatment from a medical practitioner are reportable.

Drivers are encouraged to report near-misses.

Accidents related to medical treatment or a preexisting medical condition are not reportable.

How do management report an accident to the Health and Safety Authority?

Online Reporting

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You can report accidents online by clicking on the logo that appears on the homepage and several other pages of the HSA website www.hsa.ie and registering.

The benefits of reporting online are:

- It is faster than filling in and posting the paper IR1 form
- You can view details of all the accidents you reported online over the last year
- You can print a copy of the report for your records
- You get a confirmation receipt by e-mail for each accident you report.
- Account activation codes are sent to Health and Safety Managers when a new user registers for their organisation so:
- 1. They can view details of all accidents reported online for their organisation over the past year.
- Receive an e-mail notification every time a new user registers to report accidents for their organisation.

Reporting on Paper IR1 Form.

- Employers can report accidents on the official IR1 Form
- The HSA only accept the pre-printed forms published by the Authority- photocopies are not acceptable
- Copies of the IR1 form are available from the Publications Section of the HSA by Telephoning 1890 289 389 or if calling from outside of the Republic of Ireland +353 1 6147000

The following FAQ'S relating to workrelated injuries are provided as guidance for drivers.

Road Traffic/ Vehicle Accidents Involving Employees and Self-Employed

If I am a driver or a passenger and am involved in a road traffic accident and am out of work for more than 3 days is it reportable?

Yes, if you were injured while driving or riding in the vehicle in the course of work

If I am at work and am injured by part of the load on a lorry is it reportable?

Yes, provided that you could not perform your normal work for more than 3 days.

If I am at work and am injured as the result of the loading or unloading of a lorry is it reportable?

Yes, provided that you could not perform your normal work for more than 3 days.

If I am a driver who is injured when my lorry rolls over my foot in the yard of a customer, is it reportable?

Yes, provided that you could not perform your normal work for more than 3 days.

If I am a driver who is injured when my lorry rolls over my foot on a public road, is it reportable?

Yes, provided that you could not perform your normal work for more than 3 days.

If I am a mechanic repairing a vehicle on the roadside and am hit by a vehicle is it reportable?

Yes, provided that you could not perform your normal work for more than 3 days.

If I am injured as the result of the loading or unloading of a lorry is it reportable?

Yes, provided that you could not perform your normal work for more than 3 days.

Must a red warning triangle be carried on a bus or truck?

Yes. However, it should not be deployed on a Motorway.

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 Name **4** of the most common workplace transport accidents.

	Your Response	

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Q.2 How is work equipment defined?

Your Response	
Q.3 What is a common risk with vehicles which have faulty air suspe	ension?

	You	Response	

Q.4 List 3 of the key safe refueling points.



Q.5 List 3 additional workshop hazards in addition to those already mentioned.

	Your Response	
0.6 List 3 issues a S	Safety Management System should address.	

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the section on Workplace Transport Safety.

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SECTION D – SLIPS TRIPS AND FALLS

Every year falls from vehicles account for a significant number of workplace transport incidents. Frequently, a fall from a vehicle has been the initiating event for a fatal workplace transport incident whereby the person has fallen from the vehicle and then been run over and killed by the vehicle.

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Falls from vehicles, even from a relatively low height can result in serious injuries, yet most falls are easily preventable. The majority of falls from vehicles occur whilst people are accessing or egressing the vehicle, or working at height on the vehicle.

This section looks at high-risk activities, the legal provisions and tips for prevention.

Typical activities which increase the risk of falling from a vehicle

- Loading and unloading;
- Sheeting and unsheeting;
- Coupling and uncoupling trailer units;
- Cleaning, maintenance or repair;
- Checking and monitoring equipment such as refrigeration unit temperatures.

Factors which contribute to falls from vehicles?

Multiple factors may contribute to a fall from a vehicle. However, one of the most common contributory factors is slips and trips and often by reducing the risk of slips and trips on vehicles this will also help reduce the risk of falls. Employees may also lose track of the edge of the vehicle whilst concentrating on manoeuvring items and step back off the vehicle.

Other factors that may contribute to falls from vehicles are:

- Poor vehicle design: lack of edge protection, surfaces with no or low slip resistance, poorly designed or lack of proper access;
- Poor vehicle maintenance: poorly maintained steps, handholds, surfaces or ladders;
- Poor housekeeping: untidy or badly maintained work areas;
- Environmental conditions: icy or wet conditions and strong winds may cause people to slip and fall. Inadequate lighting or poorly positioned lighting causing glare or shadows can also increase the risk of falls;
- Inappropriate footwear or footwear that is incompatible with the surface in use;
- Human factors: failure to follow safe systems of work, tiredness, lack of concentration or horseplay;

- Inadequate instruction, information and training: for instance, employees not aware of how to access and egress a vehicle safely;
- Improper use of vehicles such as standing on the forks of a forklift truck or carrying passengers in vehicles, on loads or on trailers not designed to carry passengers;
- Lack of management and supervision.

Legal Provisions

Under the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005) there is a legal requirement on the employer and any person who has control to any extent of the workplace, to carry out a written risk assessment. As part of the assessment of workplace transport, the risk of falls from vehicles must be evaluated and adequate control measures must be put in place to eliminate or reduce any risks found.

The Act also requires that employers provide safe access and egress to the workplace and as under the Act a vehicle is defined as a place of work, the employer must provide safe access and egress to vehicles.

Under the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007), the Work at Height Regulations, require that employers assess, plan and appropriately supervise any work at height. The Regulations require that the employer considers falls from any height where someone could be injured and this includes falls from vehicles such as falls from trailers, tailboard goods lifts and the top of vehicles such as vans.

What should an employer do?

- Identify and assess where falls from vehicles could occur in your work operations.
- Where a risk of a fall is identified, eliminate or control the risk taking account of the General Principles of Prevention (Schedule 3 of the 2005 Act):

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- Avoid the need to work at height on vehicles where possible.
- Provide systems of work and equipment that allow people to work at ground level. For instance if purchasing a vehicle request that gauges and controls are at ground level or use automated sheeting systems.
- Plan loading and unloading to avoid the need to work at height.
- Reorganise loading systems so that loads are palletised and can be lifted off using mechanical lifting aids. Ensure the position of loads on the vehicle matches the order of delivery.

If work at height on vehicles cannot be avoided:

- Restrict access onto vehicles. Only allow people who have to access the vehicle to do so.
- Ensure that the work is carried out in designated places, away from passing vehicles and pedestrians and sheltered from strong winds and bad weather.
- Ensure that any equipment used for lifting people is specifically designed for the task. For instance use integrated cages on fork lift trucks. Remember that nonintegrated cages on fork lift trucks must only be used in exceptional circumstances such as emergencies. Regular planned activities such as stock taking are not regarded as exceptional circumstances.
- Prevent falls from the vehicle:
- Provide On-Vehicle Fall Protection Systems such as collapsible guardrails.
- Such systems must be of sound construction, properly maintained and securely fixed.
- If on-vehicle systems cannot be provided, provide On-Site Systems such as platforms and gantries. Use drive through or drive past systems where possible.

- Ensure that there is adequate equipment for the number of vehicles and people using the systems.
- If falls cannot be prevented, reduce the distance and effect of the fall by using collective protective fall measures such as soft landing systems or nets.
- If it's not feasible to use collective protective fall measures then use Personal Protective Equipment such as fall arrest equipment or restraint systems. If using such systems, employees must have adequate instruction, information and training in their safe use. Also ensure that a rescue plan is in place.
- Ensure that there is an inspection and maintenance system in place for all equipment and vehicles. A defect reporting system should be in place so that any vehicle defects or wear and tear can be reported and addressed promptly. Remember that certain equipment must be thoroughly examined under the General Application Regulations, 2007. For instance, vehicle tailboard goods lifts must be thoroughly examined every 12 months and examination reports must be available for inspection.
- Consider using anti-slip coatings or finishings on critical areas or non-slip colour contrast on the edges of load areas, steps and tailboard goods lifts.
- Provide proper on-vehicle storage for equipment such as tarpaulins and lashings. Supply appropriate waste disposal facilities for waste materials and packaging.
- Establish documented safe systems of work. Provide appropriate equipment for vehicle cleaning, housekeeping and for dealing with spills or contamination such as diesel, oil or grease.

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What about drivers visiting other people's premises?

Vehicle drivers may operate in another company's premises and in such cases, the law requires that employers must co-operate with one another and take all reasonable steps to ensure that safety measures are co-ordinated. Vehicles on which employees of more than one company are working are usually considered as shared workplaces. Liaise with other employers to ensure that your workers are safe when visiting other places of work. Liaison will ensure that your equipment is compatible with the other employer's place of work and also that the necessary facilities to allow drivers safe access to the vehicle are available.

What should be done to prevent slips trips and falls whilst accessing and egressing vehicles?

- Specify good access when purchasing vehicles.
- Provide and maintain safe vehicles with safe access to all parts of the vehicle such as the vehicle cab, load area or fifth wheel. If vehicle-based access is not feasible, then use a workplace based solution such as access steps with handrails. If retrofitting a vehicle, consult with the manufacturer and ensure that it is safe to do so and that the structural integrity will not be affected.
- Ensure that vehicle steps are anti-slip and large enough for the foot. Where possible, specify materials that are slip resistant during wet and dry conditions.
- Provide drivers with safety footwear which has compatible slip resistance with the surfaces they will be walking on. Remember that the slip resistance of shoes can vary greatly. In some cases, shoes that are compatible with the surface of the cab steps may not be compatible with the catwalk surface. Involve and consult with employees if purchasing vehicles and equipment including safety equipment such as safety footwear.
- Provide employees with adequate instruction, information and training. People climbing onto vehicles or access equipment should be instructed to keep at least three points of contact (with their hands and feet) on the vehicle they are climbing.
- Ensure that there is adequate lighting in depots and on vehicles.

- Provide appropriate vehicle washing facilities and foot scrapers in order to remove mud, diesel or grease.
- Do not tolerate unsafe practices, challenge anyone who jumps down from their vehicle. Appropriate action should be taken against those who work in an unsafe manner.





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Entering/exiting the cab.

Getting in and out of the vehicle can be hazardous.

Some drivers do not use the steps or the hand-grips provided, but jump directly out of the cab to the ground. This can cause painful injuries that result in high costs to the employer and loss of earnings for the employee.

Both large and small drivers must be able to enter and leave the cab working space easily.

- Always enter and exit the vehicle in a safe manner. Never jump down from the vehicle cab or climb onto a moving vehicle.
- Always use the access steps or ladders provided,
- Open the door,
- Face the vehicle,

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- Grab the handhold, and
- Step down backwards, This will give you more control and if you become aware of another vehicle moving towards you, it is easier to get back into the cab or load area. Take your time and always check for uneven surfaces before stepping down from the vehicle. Avoid parking where there are obvious hazards such as uneven ground or puddles and check around steps for trip or slip hazards.
- Never climb into the vehicle with anything in your hands, place items on the seat before entry. Use the proper handholds, do not use the steering wheel and maintain your three points of contact.

- Do not use parts of the vehicle that are not designed as handholds or footholds to access the vehicle such as mudguards or bumpers which are not weight bearing parts. Do not rely on ropes, sheets or loads to support your weight as they can rip or tear.
- Always wear any Personal Protective Equipment provided by your employer. Wear appropriate footwear that is in good condition and has good treads and ankle support. Keep footwear soles clean.

What should an employee do?

- Never raise someone up on a pallet on the forks of a lift truck or travel on a vehicle load.
- Maintain good housekeeping. Keep the vehicle load area and catwalk tidy and ensure that any lashings are safely stored. Clean up any spills and dirt on the vehicle such as oil or mud on the catwalk.
- If you have to walk on a vehicle, always face the direction you are walking in. Do not walk backwards near the rear or side of the vehicle bed.
- Report any defective, worn or damaged equipment to your employer immediately such as damaged steps or handholds, slippery surfaces or broken trailer boards.
- Always follow safe systems of work especially for loading and unloading activities.



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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 List 3 activities that could increase the risk of falling from a vehicle.

	Your Response	

Your Response

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Q.2 How can footwear increase the risk of being involved in a fall?

Q.3 List 3 factors that can contribute to falls from vehicles.

Q.4 What environmental conditions might expose a professional driver to the risk of falling

Your Response

Q.4 What environmental conditions might expose a professional driver to the risk of falling from a vehicle?

Your Response

Q.5 List 3 consequences for you, your family and your employer should you be involved in a fall from a vehicle.

Your Response

Q.6 How might poorly positioned lighting increase the risk of falling from a vehicle?

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the section on Slips, Trips and Falls.

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SECTION E – REVERSING AND SLOW SPEED MANOEUVRES

In Ireland, a recent analysis of fatal accident statistics showed that reversing activities were involved in 11% of all fatal workplace transport accidents.

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Reversing incidents that do not result in injury can result in costly damage to vehicles, plant, equipment and premises. Most of these incidents can be avoided by taking simple safety precautions.

Why is reversing a problem?

The main problem with reversing is poor visibility. For instance, when articulated lorries are reversing into loading bays, the trailer often blocks the visibility of the back of the vehicle. The driver's awareness of people or objects may be hindered by the size of the vehicle, by equipment on the vehicle, by lack of functioning equipment of the vehicle such as badly positioned mirrors or non functioning CCTV cameras or even by other working vehicles in the vicinity. Environmental noise or the noise of the vehicle when it is reversing can also be a driver distraction. Environmental conditions such as poorly laid out sites or poor weather can also hinder the driver's visibility. The risk of a reversing incident may be further increased by the speed the vehicle is being driven at.

However, the majority of reversing accidents actually occur at low speed. On investigating reversing accidents, the main cause can usually be attributed to a failure to manage - the workplace, the vehicle, the driver or a combination of these three aspects of workplace transport management safety.

Legal Provisions:

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Under the Safety, Health and Welfare at Work Act 2005, employers must assess the risks to the health and safety of their employees and anyone who may be affected by their work activity. As part of the risk assessment, workplace transport and the associated risk of reversing should be evaluated and adequate control measures put in place to eliminate or reduce the risk of injury or damage to assets by reversing vehicles. Where reversing cannot be eliminated, safe systems of work of work must be put in place for reversing vehicles.

The Safety, Health and Welfare at Work (General Application) Regulations, 2007 (S.I. No. 299 of 2007) require that outdoor and indoor places of work are organised in such a way that pedestrian and vehicles can circulate in a safe manner and that pedestrian and traffic routes are clearly identified for the protection of employees.

Note: the above is not an exhaustive list of legislation that is applicable to reversing

vehicles. Other relevant legislation for example, construction and quarries legislation may also be applicable to this activity. Construction and quarries legislation lays down legal requirements for certain visual aids and auxiliary devices on specific vehicles and mobile plant.

An employer or person in control of a place of work must;

- Identify what vehicle manoeuvres are necessary and avoid the need to reverse where possible. This will form part of your workplace transport risk assessment.
- Eliminate reversing where possible, by providing one way traffic systems, vehicle turning points, drive through loading and unloading systems or engineering systems such as vehicle turntables. Good design and layout of the workplace can eliminate reversing but this is not always feasible in older workplaces. Reorganise traffic routes and loading and unloading procedures or increase the space for storing materials where possible, to avoid reversing.
- If reversing cannot be eliminated, plan out the reversing area. Good all round vision is essential if reversing is to be carried out. Consult with staff, drivers and visiting drivers when planning the reversing area. Take account of any previous reversing incidents.
- Provide a documented safe system of work for reversing activities and ensure that all employees and visiting drivers are aware of how you operate and supervise the safe system of work.

If vehicles must reverse:

The most effective ways to improve safety during reversing operations are to:

- Segregate pedestrians and vehicles
- Whenever possible, obtain the assistance of someone who is competent to safely guide you
- Improve the driver's ability to see around the vehicle from the driving position. For example, instal a CCTV system which eliminates any blind

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spots. Some vehicles are now fitted with a radar sensing system which warns of anything or anyone in close proximity to the vehicle.



- Remove people from the reversing area, create a vehicle only area and keep the area free from obstructions.
- Ensure that there is adequate space for reversing. Provide large reversing areas where possible. If the workplace is small, you may have to restrict the size of vehicles allowed to access your site.
- Ensure that reversing areas are well laid out, clearly identified for both drivers and pedestrians, have adequate markings, signage and aids to increase visibility such as mirrors. The provision of longitudinal guides, lateral white lines on the ground or fixed mirrors can all be of assistance to the driver in positioning the vehicle correctly. Remember, if left hand drive vehicles visit your premises, they may have different lines of visibility.
- Place fixed mirrors in reversing areas, if required.
- Where vehicles have to reverse up to structures, services or edges, provide physical stops such as barriers, bollards, buffers or wheel stops to warn drivers that they need to stop and to prevent vehicles from overrunning edges. All physical stops should be highly visible, appropriately positioned and well maintained.
- Ensure that there is adequate lighting in the reversing area.

The Vehicle:

- Ensure that vehicles use the most suitable route when reversing and minimise the distance vehicles have to reverse.
- Ensure that the driver has good all round visibility. Provide extra visibility aids if necessary such as CCTV, convex internal rear view mirrors or convex segment wing mirrors.

Certain legislation such as construction and quarries legislation lays down specific legal requirements for certain auxiliary devices and visibility aids on specific vehicles. Ensure that all visibility aids and vehicle windscreens are kept clean and well maintained.

- Consider reversing aids or safety devices if appropriate, for example "sensing" or "trip" systems can assist in the detection of people or obstacles behind the reversing vehicle. Such systems must be correctly installed, set up and maintained. It is important to remember that these systems are an aid and are no substitute for good all round visibility and driver awareness.
- If the vehicle is equipped with an automated manual transmission system, always engage Manoeuvring Mode when engaged in a slow speed forward or reverse manoeuvre.
- Audible reversing alarms which warn people of the danger can be of assistance in certain situations however, they may not be heard by all people and can become part of the background noise on a busy site. Where multiple vehicles operate on a site, distinguishing the reversing vehicle can be difficult and in such cases a flashing warning light may be more appropriate. If using reversing alarms remember that they must be loud enough to be heard over other noises yet should not cause an environmental nuisance. All alarms must be kept in good working order. Alarms should not be considered fail safe and should be used in conjunction with a combination of control measures.
- Consider installing a speed limiting device to the vehicle when reversing.
- Place guard rails near the rear wheels and hazardous access points to prevent people from being dragged under the vehicle.
- Select conspicuous vehicle colours and markings to assist the vehicle in standing out.

The Driver & Other People:

- Identify all the people likely to be affected by reversing on your site and ensure that employees and drivers have adequate instruction, information and training.
- Ensure that any visiting drivers are familiar with the workplace, the site rules regarding reversing and the reversing areas. Ensure that all employees understand everyone's task.

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Using a reversing assistant

If using a reversing assistant, ensure that there is a safe system of work in place and that the assistant is;

- Competent and adequately trained. Remember, new employees will need to be trained with respect to the system at your place of work as they may have used a different system before.
- Authorised to be a reversing assistant.
- Wearing appropriate high visibility personal protective equipment.
- In full view of the driver at all times during vehicle movements. Drivers must stop immediately if the guide goes out of view at all.
- In a safe position where they can guide the vehicle and be a safe distance from the vehicle. The reversing assistant should never stand directly behind the vehicle.
- Using recognisable hand signals, which must be obeyed and enforced if not obeyed. A clear signalling system should be agreed in advance with the driver prior to any reversing activities being carried out. Portable radios or other communication devices may also be of assistance.

A driver should

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- Always be aware of pedestrians.
- Use the safe systems of work provided and follow the traffic management system that is in operation.
- If you have to reverse, reverse slowly, checking mirrors at all times.
- Avoid reversing over long distances.

- Use the relevant auxiliary devices and visibility aids provided. Keep your vehicle mirrors and windscreen clean and in good repair. Ensure that your mirrors are correctly aligned.
- Report any defects in equipment, such as faulty CCTV cameras or reversing sirens, or systems of work or any accidents, incidents or near misses to your employer. If there are particular sites where reversing is unsafe notify your employer and the site management.
- Where possible, reverse into parking spaces rather than out of them.

Staff and visitors working in or around an area whilst vehicles are reversing must;

- Look out for reversing vehicles.
- Use the safe systems of work provided and follow the traffic management system that is in place by using the safe pedestrian routes provided.
- Clearly understand everyone's task.
- Never stand or walk behind a reversing vehicle.
- Remember that vehicle drivers cannot always see pedestrians as vehicles have blind spots.
- Do not enter restricted areas or designated reversing areas.
- Always wear High Visibility clothing if working in the vicinity of vehicles.
- Report any defects in systems of work or any reversing accidents, incidents or near misses to your employer.

Remember.

When reversing, professional drivers should not rely solely on auxiliary devices, but must continuously check all around to ensure that it continues to be safe whilst reversing.

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 List 3 of the common problems associated with reversing.

Y	Your Response

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Q.2 List 3 precautions staff and visitors must take when in a reversing area.

Your Response

Q.3 How can visibility into the reversing area be improved?

Your Response
What should a driver do to ensure good visibility when reversing?

Your Response

Q.5 When using a reversing assistant what should both parties clearly agree and recognise?

Your Response

Q.6 What legal provisions apply to the health and safety of employees?

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the section on Reversing and Slow Speed Manoeuvres.

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SECTION F – SAFE LOADING/UNLOADING AND LOAD SECURING

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A professional driver is ultimately responsible for the safe carriage of any passengers, goods or load being carried on the vehicle being driven by them, and before starting the drive must check that the vehicle has been loaded safely. It will also be necessary to make further checks at appropriate intervals throughout the day including after any changes such as passengers entering or exiting the bus or loading or unloading parts of the load.

Loads carried in any vehicle, whether a motorbike, car, van, bus, truck or trailer, should be secured so that they cannot move or fall off or out of the vehicle. Loose items such as a computer laptop on the rear seat or tools in a vehicle cab are all potential missiles especially in a collision and can cause serious injury to the vehicle occupants, other road users and pedestrians. Loads must be secured even if the vehicle is only travelling a short distance or at low speeds.

What is Load Security?

Load security is a term used to cover load restraint and load containment, and also includes load distribution.

- Load restraint means preventing the movement of the load in any direction in relation to the vehicle load bed.
- Load containment means preventing goods falling from the vehicle.
- Load distribution relates to how the load is safely arranged to ensure the safety and stability of the vehicle.

Unsecured loads can move in any direction (forward, backwards, sideways and even upwards). The weight of the load and the friction between the load and the vehicle are never enough to keep the load in place. Unsecured loads may become unstable during a journey and fall from a vehicle during unloading. Loads must be secured so that they are unlikely to shift, fall, be dislodged or blown from the vehicle both during the journey and when the vehicle is being unloaded. Incorrectly placed loads may exceed an axle weight limit and impact negatively on the efficiency of the braking system, steering and suspension, and may also lead to prosecution.

Why should loads be secured?

Unsecured or inadequately secured loads can injure and even kill people. Failure to secure a load properly can also result in financial losses due to damaged goods, vehicles, property and roads. Financial losses may also result from lost working time, clean up costs, time delays during unloading, legal costs and damage to company reputation.

Loads that are unsecured or inadequately secured often begin to move when the driver is

accelerating, braking, going around corners or roundabouts, entering or exiting motorway slip roads or taking evasive action such as avoiding a collision. Sudden steering movements can also cause the load to move. Loads can move even at low speeds.

Drivers, vehicle occupants, other road users, pedestrians and anyone who may be involved in loading and unloading the vehicle may be at risk of injury.

- As well as being a distraction to the driver, shifting loads can make the vehicle unstable, result in loss of control of the vehicle and may cause the vehicle to overturn.
- Unsecured loads or objects may fall on or hit people and can cause road obstructions, traffic disruptions and collisions especially if drivers swerve to avoid fallen items.

Poor Load Securing

- Unsecured loads may fall off, hitting people or other vehicles, or may cause other vehicles to swerve.
- Unrestrained goods may crash into the vehicle cab during braking.
- Loads which have shifted may have to be manually removed from the vehicle which may increase the risk of an injury or a fall from the vehicle.
- When loading coaches, loading of luggage is particularly important in relation to axle weights.
- The primary function of a bus or coach driver is to ensure the safety and comfort of the passengers and the safety of other road users. If a driver detects that the handling of the vehicle is adversely affected by either the luggage or

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passenger distribution, it may be necessary to adjust his or her driving style or to redistribute any luggage.

Who is responsible for securing loads?

Load security is primarily but not solely the responsibility of the vehicle driver. Everyone has a role to play in ensuring that loads are transported safely.

- Employers: Must ensure that the vehicle is safe and suitable for the load being carried. They must also ensure that safe systems of work are in place for securing loads, that staff are trained and that during load securing the risk of people falling from the vehicle or suffering an injury is avoided or minimised.
- Vehicle Owners: If the vehicle is leased or rented, the company that owns the vehicle has a responsibility to ensure that the vehicle is safe and fit for purpose.
- Loading & Unloading Staff: Must be trained how to secure loads and competent to load and unload the vehicle safely.
- The Driver: On the road, the driver is responsible for the load so the driver should know how the vehicle has been loaded and how the load is secured. While carrying out the journey, the driver should check that the load is secure at regular intervals as the load may settle or move during the journey.

What is used to secure loads?

Different loads will require different methods of securing for example, fastening straps, chains, adjustable brackets, sliding slatboards, use of dunnage, blocking or bracing. However, what works for one type of load will not necessarily work for another type. The vehicle must always be appropriate to carry the load and have suitable attachment points for chains, straps and other load securing devices. Whatever system is used it must not create an additional risk for people who have to use it. Carry out a risk assessment and select the safest and most appropriate method of securing the load. Consult the vehicle manufacturer, trade industry bodies and suppliers of proprietary load security systems who will be able to provide advice. Many modern coaches have safety belts fitted as standard and it is important to understand the drivers responsibility in regard to their use. It can be useful for the bus or coach to have notices clearly displayed encouraging passengers to wear the safety belts provided. Drivers should always wear their own safety belt when driving.

Collecting and Delivering

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A large number of accidents occur during collection and delivery operations.

A common factor in delivery and collection accidents is the lack of any agreement between the supplier, carrier and recipient about who is responsible for what, in terms of safety.

In most work situations the safety of an employee is primarily the responsibility of their employer, but in order to collect or deliver goods or passengers, drivers have to visit premises and depots which are controlled by others.

The driver plays a key role in safely collecting and delivering, and is often the person who is injured when an accident does occur.

When making a collection or delivery of goods or passengers, a driver needs to know

- Any restrictions on the type or size of vehicle that the site can safely handle
- Any restrictions on the times when a collection or delivery can be made
- The best approach route to the site having regard to the vehicle length and width, one-way streets, low bridges, narrow roads, road weight limits, sharp bends, narrow entrances and parking restrictions
- A site plan showing the road system and parking area, reception, turning, reversing and uncoupling area, rest area, and loading bays/ disembarkation area
- Who is in overall control of the area
- Specific requirements by the supplier or recipient, such as high-viz vests, protective equipment, mobile phones switched off, no smoking, reversing requirements, use of CCTV cameras, or the presence of an assistant
- Who to report accidents or concerns to
- When to give permission to an on-site driver to take over the vehicle
- The method of loading and unloading type of equipment to be used, and whether the driver is expected to operate a forklift truck or load luggage
- Whether the driver is expected to remain in the vehicle or not during loading and unloading operations
- Whether the driver is required to fit and remove sheeting to the load

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- How to operate any equipment such as pumps, hoses, hoists, cranes, tail-lifts, grab-lifts, and forklifts
- What lighting and security facilities are in place at the site
- Whether language differences will present a problem at the site

What areas need to be considered?

The workplace

Layout of the place of work:

- Are vehicles and pedestrians kept safely apart?
- Are there suitable walkways for pedestrians?
- Are there suitable parking areas for all parking needs?
- Do the vehicle routes avoid sharp or blind bends?
- Is there scope for introducing a one-way system on vehicle routes within the workplace to reduce the risk of collisions?
- Are the lighting arrangements adequate both inside and outside?
- Where loading bays are longer than the width of five vehicles, are appropriate numbers of exits or safe refuge points in place?
- Suitability of traffic routes;
- Are they wide enough?

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- Are they well constructed and maintained?
- Are they free from obstructions and other hazards?
- Suitability/provision of safety features;
- Are roadways marked where necessary e.g. to indicate the right of way at road junctions?
- Is there a need for direction signs, speed limit signs and, where applicable, signs such as "give way", "no entry" etc.?
- Is there a need for features such as fixed mirrors to provide greater vision at blind bends, road humps to reduce vehicle-speeds, or barriers to keep vehicles and pedestrians apart?
- Is there adequate warning at the interface of the site with public areas?

The vehicles

Vehicles at the workplace must be safe and suitable for the work application:

- Are vehicles purchased or leased with all the recommended safety features? This is particularly important when second-hand vehicles are purchased or leased.
- Are they provided with horns, lights, reflectors, reversing lights, alarms and other safety features as necessary?
- Are drivers protected against impact, rollover, falling objects, hazardous environments such as cold, dust, fumes and excessive noise or vibration? Adequate ventilation must be provided where mobile work equipment with combustion engines is in use.
- Are there guards on dangerous parts of the vehicles, e.g. power take-offs, chain drives, exposed exhaust pipes?
- Is there a safe means of access to, and exit from, the cabs and other parts that need to be reached?

Loading and unloading operations

- Are loading/unloading operations carried out in an area away from passing traffic, pedestrians and others not involved in the loading/ unloading operation?
- Are the vehicles braked, chocked and/or stabilised, as appropriate, to prevent unsafe movements during loading and unloading operations?
- Is the loading/unloading carried out so that, as far as possible, the load is spread evenly to avoid the vehicle or trailer becoming unstable?
- Are checks made to ensure that loads are secured and stable so that they cannot move about, e.g. slide forward if the driver has to brake suddenly, or slide off if the vehicle has to negotiate steep inclines?



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- Are there checks to ensure that vehicles are not loaded beyond their capacity?
- Bus and coach drivers must carefully consider where they allow school children and other vulnerable passengers to embark and disembark. Under no circumstances should passengers be allowed to disembark into the roadway, such as on the right hand side of the road, or at the mouth of a junction. Drivers should also consider the visibility afforded to other road users.

Safe working practice

Extra care must be taken when working:

- Near or over inspection pits (danger of falling);
- Under hydraulically raised tipper bodies (danger of being crushed – use props);
- Near engines emitting exhaust fumes (breathing problems);
- With solvents or degreasing agents (lung and skin problems);
- Close to vehicle batteries (risk of burns or explosion);
- At the rear of a vehicle fitted with a "tail-lift" mechanism (foot injuries);
- In or near paint spray shops (lung problems from vapour).
- At bus stops and bus depots.



Wheelchair Lift





All passenger lifting equipment must be checked/ certified by a competent person every 6 months. All commercial lifting equipment must be checked/ certified by a competent person every 12 months.

Where can I get further information?

- Visit www.hsa.ie for information on occupational health and safety or contact the Workplace Contact Unit at wcu@hsa.ie or 1890 289 389.
- For information on Road Safety visit www.rsa.ie and www.garda.ie
- See HSA Factsheets for particular types of load.

Load Security Information Series The Basics of Vehicle Load Security

www.hsa.ie - www.garda.ie - www.rsa.ie

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The following tips are provided to help drivers adopt safe working routines. The list is not exhaustive and it is important for drivers to be aware of the correct use of various and suitable restraints.

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Moving Goods Safely – Loading Tips



- 1. Know your vehicle capacity.
- Ensure the vehicle is in good condition & suitable for the type, size & weight of the load.
- 3. Check the vehicle weights & dimensions plate for max. weights allowed (applicable to vehicle including a trailer).
- 4. Load the vehicle within its limits.
- Place the load against the headboard.
 If not possible, use intermediate bulkheads, blocking or dunnage to fill the gap. On rigid-sided vehicles, gaps must be avoided between the load & the sides of the trailer.



- Distribute the load evenly taking account of how the vehicle can be unloaded safely.
- Ensure the load is stable prior to restraining it. Support any unstable loads or place them in a transport frame.
- Place the heaviest items at the bottom with the lighter items at the top, if the load is stacked or a double deck trailer is in use.
- Restrain the load properly to prevent it moving in any direction. The restraint equipment used will depend on the type & composition of the load.



- 10. Contain the load to stop it falling from the vehicle e.g. use restraints bars, side slats etc. where necessary.
- 11. Check the load & the load restraints regularly throughout the working day & prior to commencing a new journey. Remember loads can settle or move & restraints can loosen.
- 12. Never rely on curtains to secure or contain a load. Curtains are there to provide weather protection only.

For further information on Load Securing see www.hsa.ie.

Moving Goods Safely – Loading Tips

Load Restraint Equipment

- 1. Check load restraint equipment for damage, wear & tear, every time you use it.
- Check that equipment is being used, stored & maintained in accordance with manufacturer's instructions.
- 3. Ensure that load restraint equipment is marked to show the load it is rated for.





- 5. Protect webbing straps from sharp edges, use edge protectors or sleeves.
- 6. <u>Never</u> knot webbing straps.



- 7. Always use the same type of load restraint equipment for a specific load. Never mix webbing straps & chains for example.
- Never use webbing straps suspended from the roof of a curtain-sided vehicle for load restraint.



For further information on Load Securing see www.hsa.ie



If you are unfamiliar with the correct use of any restraint, ask a competent person for advice. Do not leave it to chance.

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 In general, what are the 3 main aspects of load security?

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Q.2 When in transit, who is ultimately responsible for the safety and security of passengers or a load?

Your Response

Q.3 List 3 things that load restraint equipment must be checked for before use.



Your Response

Q.4 List 3 things a driver should find out before making a collection or delivery of passengers or goods

Q.5 List 3 effects of overloading a vehicle.

and load securing?

Q.6 Where can further information be obtained on safe loading and unloading of vehicles

Your Response

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the section on Safe Loading/unloading and Load Securing.

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SECTION G – PERSONAL PROTECTION EQUIPMENT

Along with the many responsibilities of a professional driver, he or she is also responsible in so far as is reasonably practicable for their own personal safety at work. Employers commonly provide suitable Personal Protection Equipment (PPE) for use by staff. Self-employed drivers also have a duty of care to themselves and to their families to maintain their own personal safety. Drivers must consider the risks associated with their duties and what equipment may help protect them. Simply having equipment available is not enough. Drivers must maintain and use it in accordance with the manufacturers and employers instructions. Failure to do so will lead to a higher risk of accident or injury and possibly to disciplinary action.

Personal protection Equipment (PPE) refers to protective clothing, helmets, goggles or other garment or equipment designed to protect the wearers body from injury by blunt impacts, electrical hazard, heat, chemicals and infection.

Where PPE for communal use is provided, employers and those using it must have a safe system in place to clean and maintain it.

Why use Personal Protection Equipment?

Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007)

The fundamental principle enshrined in these provisions is that personal protective equipment (PPE) should only be used as a last resort. The safety and health of employees must be primarily safeguarded by measures to eliminate workplace risks at source, through technical or organisational means, or by providing protection on a collective basis. Collective protective measures covering numbers of employees in a workplace must have priority over protective measures applying to individual employees. If these measures are not sufficient, PPE must be used to protect against the hazards that are unavoidable. The four principles for eliminating or reducing work-related hazards are:

- 1. Eliminate the risk
- 2. Isolate the risk
- 3. Bar access to hazard zones
- 4. Use PPE

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There are strong arguments for attempting to control hazards on a general or collective basis before resorting to providing PPE:

- (i) PPE only protects the wearer.
- (ii) With PPE, theoretical levels of protection are seldom reached in practice, and actual levels of protection are difficult to assess. For example, with face masks the effectiveness of the mask depends on many factors, such as facial hair or contours and composition of contact material between face and mask.

In order to cater for the physical differences in employees, more than one type or size of PPE should be available where numbers of employees are involved.

- (iii) The use of PPE may restrict the wearer to some degree, e.g. in movement, visibility, hearing, breathing ability, and may be uncomfortable to wear and cause irritation at points of contact with skin due to perspiration etc.
- (iv) In some cases the psychological effect of PPE may be such that the individual wearing it feels more protected than he or she actually is.

The Safety, Health and Welfare at work Act places a duty on employers to supply PPE where risks cannot be eliminated or adequately controlled. The Act also places a duty on employees, having regard to their training and instruction, to wear and make correct use of PPE. Chapter 3 of part 2 of the regulations applies other duties on the employer in respect of selection, assessment, conditions of use and compatibility, maintenance and replacement, information



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and training regarding PPE provided for employees, where risks to safety and health cannot be avoided or sufficiently limited by technical means or collective protection or by measures, methods and procedures of work organisation.

Examples of Personal Protective Equipment include:

- Hi Visibility clothing
- Boots
- Gloves
- Work clothing
- Head protection
- Eye protection
- Ear protection
- Face protection
- Hi visibility jackets
- Knee protection

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Personal Protective Equipment

An employer or owner-operator must ensure that Personal Protective Equipment, including any such equipment provided by an employee, is inspected before initial use during each work shift. Defective or damaged equipment must be repaired, or the unserviceable equipment must be replaced before work is commenced.

THE EMPLOYER OR OWNER-OPERATOR MUST ENSURE THAT ANY PERSONAL PROTECTIVE EQUIPMENT;

- 1. Meets industry standards.
- 2. Is maintained in serviceable condition.
- 3. Is used consistently in the field.

High Visibility Clothing

As a bus or truck driver you are strongly advised to wear class 3 high-visibility clothing, which provides the highest type of visibility.

Visibility hazards are most severe when a driver is on the ground, or when the driver enters any work zone. It may include all manner of clothing, including jackets, hats, overalls, gloves and footwear.

The Safety, Health and Welfare at Work (General Application) Regulations 2007 require many factors to be taken into account to ensure that the correct clothing is chosen for a particular work task.

1. Is it suitable for the risk?

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Choice of clothing should take into account ambient and artificial lighting conditions at the workplace, and the effect of conditions such as fog and snow. For some jobs a High Visibility [hi-vis] waistcoat, for example, may be all that is needed, but those workers who are particularly at risk, e.g. from moving vehicles (drivers, loaders, or maintenance workers), may need full body high visibility clothing so that they are as visible as possible to the driver. Hi-vis clothing should provide adequate protection during the day and at night, as well as in adverse weather. As a rule: the darker the conditions or worksite, the greater the amount of hi-vis clothing required.

To be effective hi-vis clothing should be of a colour that will allow the wearer to stand out against the ambient background found in the working environment. In practice the best colours for this purpose are likely to be day-glow, or fluorescent yellow. Where necessary the clothing should also incorporate retro reflective material to make the wearer visible when seen in headlights in poor lighting conditions or during darkness. This may require reflective strips at or below waist level on waistcoats or jackets, or strips on trousers.

2. Is it suitable for the job?

People working in warehouses may find that some types of loose fitting tabard may snag on moving machinery parts. Also hi-vis coats may be too warm in summer months, in which case, waistcoats or overalls with the appropriate hi-vis qualities could be supplied. Remember: PPE must always be suitable for the work; if the way of working changes - check that the PPE is still suitable.

3. Is it suitable for the wearer?

Hi-vis clothing should be comfortable and fit the wearer properly. It should cause the minimum of restriction in the wearer's movement.

4. Is it compatible with other forms of PPE?

If two or more types of PPE are worn, they should not interfere with each other. Therefore, in the case of maintenance staff for example, protective clothing for chemical spills should also provide the necessary level of conspicuity. Similarly, wet or cold weather clothing should have suitable hi-vis qualities or be capable of being worn under hi-vis garments.

5. Are there any standards which the clothing should meet?

Hi-vis clothing should be manufactured to a recognised standard. The Standard for high visibility warning clothing is IS EN 471. This is a

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harmonised European standard produced with the legal requirements for PPE in mind. Clothing which conforms to the standard is marked with a pictogram of a hi-vis vest which outlines the class of conspicuity which it incorporates. This depends on the minimum area of conspicuous materials that are incorporated into the clothing, with Class 3 being the best and Class 1 the lowest; it also outlines the retro reflection performance with Class 2 being more visible than Class 1 when seen in headlights during darkness. The standard gives specifications for coveralls, jackets, waistcoats, tabards, trousers and harnesses.

Hi-vis clothing must be 'CE' marked to show it meets the new European rules on the manufacture of PPE. Remember: the CE mark only means that the clothing meets the standard. It does not mean it can be used in all situations. Hi-vis clothing must be suitable for the actual conditions of use.

Employers or owner-operators must;

- provide any hi-vis clothing needed for the job free of charge to any employees who may be exposed to significant risks to their safety;
- maintain hi-vis clothing in a clean state and in good working order. It should be checked before being given to employees;
- provide storage facilities for clothing when not in use;
- provide adequate information, instruction and training to enable employees to use HI-VIS clothing correctly. This should include an explanation of the risks, why the clothing is needed, how and when it should be worn; and
- supervise employees to ensure that they wear the clothing correctly and whenever it is needed.

Employees and owner-operators.

For the purpose of this section the term employee can be interchanged with owner-operator. Employees should wear the hi-vis clothing provided as instructed by your employer. Look after clothing issued to you, check for and report any damage or defects to your employer. Use the storage facilities provided when the clothing is not in use. Remember: damaged or ill-fitting clothing will not protect you properly. Make sure all hi-vis clothing is clean and in good condition and free of defects before every use. **Head Protection:** Depends on the working environment at the time or the activity being undertaken. Hard hats or approved head protection such as bump caps should be worn whenever the driver is outside the vehicle cab.

Eye Protection: Requirements are dependent on the nature of the cargo being transported, the operational activities and the working environment at any given time. This may range from protective spectacles to goggles to a full-face visor. Normal prescription eyewear or sunglasses do not meet the approved standards.



Hand Protection: Suitable gloves provide the best protection for the hands. Hand protection must be worn when handling cable binders, straps and during some maintenance and repair procedures. There must also be an awareness of the particular dangers arising from the transport and handling of low or high temperature products. Many drivers keep gloves on board for use during refueling, coupling and uncoupling, or loading and unloading activities.

Safety Footwear: Slips, trips and falls are a common cause of workplace injuries for drivers. Safety footwear, either boots or shoes which comply with the appropriate standard should be worn at all times and should be of an approved type for the nature of the work and the area of operation. The footwear should.

- Protect feet from dropped or rolling objects steel toe.
- 2. Cover and provide support to the ankle.
- Provide adequate traction in all conditions

 aggressive lug sole. This is particularly
 important for drivers when in areas that may
 have been contaminated by grease, or fuel or
 oil spillage.

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This may include additional devices during icy conditions.

Hearing Protection: Appropriate hearing protection must be immediately available and is required if the driver operates, or is near a noisy environment. It may also be required for certain working environments, where the noise is not deemed acute, but the duration of time spent in the environment is prolonged. However, drivers should not use or wear hearing protection equipment whilst driving where to do so would reduce their ability to hear warning signals or to make a timely response to developing hazards.

Knee Protection: Suitable knee and/or leg protection should be used as necessary when drivers are required to work at ground level.

Many drivers wear high visibility jackets or vests while driving. This helps to protect against getting out of the vehicle and forgetting to put it on.



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Examples of typical Personal Protective Equipment.(PPE)

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 List 3 types of Personal Protective Equipment which are particularly relevant to professional drivers.

Your Response	

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Q.2 In choosing suitable PPE, what 5 issues should be considered by the employer and driver.

Your Response		

Q.3 List 3 effects which an inability to work as a result of an accident could have on a driver and their family.

Your Response

Q.4 List the 3 key obligations regarding the condition of PPE for an employer or owner-operator.

Your Response

Q.5 In order of importance, list the 4 key steps to managing and reducing work related hazards.

Your Response

Q.6 What standards must High Visibility clothing meet?

Your Response

Having completed these questions your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided. If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

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> SCENARIO

Safety equipment

Truck drivers should consider themselves in a similar set of circumstances with their truck on fire, particularly with regard to the 4 questions.

While driving on a dual carriageway Marie, a coach driver, was approached by a passenger who advised her that there was smoke coming from the rear of the vehicle. She immediately stopped the coach on the hard shoulder, applied the handbrake, and, leaving the engine running, she got out of the vehicle to investigate what was causing the smoke. She quickly realised that there was a fire in the engine compartment and, acting quickly, she tried to extinguish the fire by using her company-issue fleece jacket to smother the flames. When this failed to work she returned to the driver's cab to get the fire extinguisher. She called to the passengers to leave the bus immediately as it was on fire. She then returned to the back of the bus and tried to put out the fire with the fire extinguisher. When the fire began to spread, she asked one of the passengers to call the emergency services on 112.

- 1. What do you think of the actions the driver took in this scenario?
- 2. Did she follow the correct sequence of actions? If not what sequence of actions should she have followed?
- 3. What could have been the consequences of the decisions the driver made?
- 4. What is the best advice you would give to a professional driver when dealing with a fire in his/her vehicle?



This concludes the section on Personal Protection Equipment.

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SECTION H – ACCIDENTS, EMERGENCIES, BREAKDOWN

Despite taking all necessary precautions, an accident, emergency or breakdown can occur at any time. Professional drivers need to know how to respond to a range of situations they may face with little or no notice, so that they do not add to the danger or risk to themselves or other road users. This section provides important tips and information which should be followed when they find themselves in such circumstances. Some of the advice relates to legal obligations, safety considerations, or both.

What drivers must do at an accident or emergency

- If you are involved in an accident, you must stop your vehicle and remain at the scene for a reasonable time. This is a legal obligation. If vehicles are blocking the roadway or posing a danger to other road users, the roadway should be marked and the vehicle should then be removed as soon as possible. Section 14 of the Rules of the Road gives important information on the correct behavior at the scene of an accident or emergency. Section 11 deals with a breakdown on a Motorway.
- If you are asked by a Garda, you must give your name and address, the address where the vehicle is kept, the name and address of the vehicle owner, the vehicle's registration number and evidence of insurance, such as the name of your insurance company or a disc or motor insurance certificate. If there is no Garda at the scene, you must give this information to any person involved in the crash or, if requested, to an independent witness.
- If you or another person are injured and there is no Garda at the scene, the accident must be reported to the nearest Garda station.
- If the accident damages only property and there is a Garda in the immediate vicinity you must report it to the Garda. If there is no Garda available you must provide this information to the owner or the person in charge of the property. If, for any reason, neither a Garda nor the owner is immediately available you must give all relevant information at a Garda station as soon as reasonably possible.
- Keep a disposable camera with built-in flash in your vehicle and if safe and practical take photographs of the scene and any damage done. Photographs taken with a digital or phone camera may be accepted as evidence by the Courts or by Insurance Companies.
- Take care when moving damaged or brokendown vehicles and make every effort to warn oncoming traffic of the accident.

- You can warn them by using your hazard lights.
- If you need to ask for another road users help to warn traffic, do so right away.
- If you have a reflective advance-warning triangle, (heavy vehicles and buses must have one), place it on the road far enough from the scene of the accident to give enough warning to approaching traffic.

A red warning triangle must be placed at a distance behind the vehicle sufficient to give following traffic adequate warning of the obstruction ahead to enable them to slow down or to stop if necessary.

The distance for the triangle to be placed behind the vehicle is not prescribed, but the drivers personal safety must take priority at all times.

The driver is responsible for placing the triangle, provided he or she is able to do so, using his or her best judgement as to its effectiveness.

When placing a triangle you should take account of prevailing road conditions, traffic speed and volume. This is particularly important on dual-carriageways where traffic may be travelling at speed.

Never attempt to place a warning triangle on a Motorway as it is too dangerous. In some countries it is an offence to do so.

See Accident Facts on pages 91 and 92.



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- If the breakdown occurs near a bend in the road, make sure you give warning to traffic on both sides of the bend. For this reason, it is advisable to carry two warning triangles.
- Leaking fuel from a crashed vehicle is dangerous, so be careful approaching any vehicle after an accident.
- Carry a high visibility vest or jacket and a torch in your vehicle. If there is an accident, wear the vest or jacket and use the torch to alert other road users of your presence. As a guide, you should carry a high visibility jacket or vest for every seat in your vehicle. By doing so, you ensure a degree of protection for whoever else might be carried.
- In addition to carrying a red warning triangle, buses and coaches must also carry a 1st Aid kit and a fire extinguisher. Where a fire extinguisher is fitted, there is an onus on the employer to ensure that the user knows how to operate it. Fire extinguishers should be properly secured so as not to roll or move about during the course of a journey.

What to do if you arrive at the scene of an accident

Do's

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Do remain calm.

Do switch off the engine and apply the handbrake.

Do use a reflective advance-warning triangle

Do switch on hazard warning lights and parking lights.

Do make sure you are safe as you try to help others.

Do make sure others are safe, however you should keep any injured people warm by placing coats or rugs around them, and assess the need to provide First Aid

Do organise bystanders to warn oncoming traffic from both directions, if this has not already been done. Be particularly careful at night so that people giving help are visible (by wearing reflective armbands or bright clothes or carrying lit torches).

Do call for help. Contact the emergency services on 999 or 112.

Do make some notes or complete your companies Accident Report Form as soon as it is safe and practical to do so, while the details are still fresh in your mind and easier to recall. See sample Accident Report Form on Page 50.

Don'ts

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Don't panic

Don't stay at the scene if there are enough people helping and keeping it under control.

Don't get injured yourself - park your vehicle safely out of the way

Don't move an injured person unless there is a risk of fire or of the vehicle turning over.

Don't attempt to lift a car off an injured person without help.

Don't remove helmets from injured motorcyclists. Neck injuries are common in motorcycle collisions, and any attempt by inexperienced people to remove the helmet may leave the injured person paralysed from the neck down.

Don't allow anyone to smoke at, or close, to the scene

Don't give an injured person anything to eat or drink.

First Aid

As a professional driver, the vehicle you are driving can be described as a 'place of work' and as such it is important to be aware of the obligations associated with that place of work. While not part of this training course, guidelines on First Aid at places of work are available from www.hsa. ie. The guidelines explain the responsibilities and provide information on suitable training at various places of work. Many people undergo voluntary First Aid training and some hold and maintain a qualification in Occupational First Aid.

The Irish Red Cross has developed a useful 'app' that can be used to obtain practical advice either before or during an Emergency. It offers advice on situations or events where first aid might typically be needed. It has advice on how to prepare for emergencies including chemical and first aid emergencies. The app contains step by step guidance including some short video clips on some of the most common everyday situations where a little knowledge could make a lot of difference and possibly save a life. It has been developed by the British Red Cross society and is based on their everyday first aid program.

The app may help you whether you encounter someone in need of help whilst working, or whilst

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you are with family, friends or you are just out and about in the community. It also provides advice on suitable first aid training courses.

Don't keep it to yourself - tell your colleagues, friends and family members where they can get the app.

Finally, don't leave it until a time when you need it. The app can be downloaded free of charge onto a smartphone or tablet from Google Playstore or from the Apple App store.

See www.redcross.ie/first-aid-training for more information.



Breakdown

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If your vehicle develops a fault or breaks down, try to pull it as far to the left as possible. Try to get off the main carriageway without causing danger or inconvenience to other road users, but do not park on a footpath as the weight may collapse underground ducts or damage underground services.

Switch on the hazard warning lights and place the red warning triangle - not on a Motorway.

Do not attempt to carry out repairs on the side of the vehicle nearest the traffic unless it is safe to do so.

If your vehicle is causing obstruction or danger to other road users, you must inform the Gardai as soon as possible. This is particularly important if your vehicle is carrying dangerous goods or hazardous materials.

If your vehicle has an intermittent mechanical problem, do not be tempted to continue on your journey. A small defect could develop into a major problem if it is left without attention, and you could end up causing traffic chaos if your vehicle eventually breaks down in a busy location.

Many injuries and fatalities have occurred at locations of what were initially simple breakdowns.

Many breakdowns are the result of tyre failure or blowouts. Not only are these dangerous in themselves by causing loss of control, but the resulting debris may cause a significant hazard to other road users.

A sudden deflation of a front tyre can result in a loss of steering control. If this happens, you should

- Keep a firm grip on the steering wheel
- Be aware on any traffic on your left hand side
- Signal to move to the left

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- Try to steer a steady course to the left
- Reduce speed gradually and avoid harsh braking
- Try to bring the vehicle to a halt under control and as close to the left as possible

If a rear tyre on your vehicle or trailer deflates suddenly, the effects may not be quite as severe. On a large vehicle you may hear the characteristic loud bang of a tyre blowout. If this happens, you should always stop as soon as it is safe to do so and check all the tyres on your vehicle.

It is important to regularly check the condition of the tyres, the air pressure, and to ensure that the wheel-nuts are tightened to the manufacturers specifications. It is important that these checks are routinely carried out as part of your daily walkaround checks.

If your vehicle breaks down on a Motorway, you should pull into the hard shoulder and stop as close to the left as possible. Do not attempt to carry out even minor repairs on a Motorway. Switch on the hazard warning lights, but do not attempt to place a red warning triangle on a Motorway.

Call the emergency services or use the roadside emergency telephone to inform the Gardai of your situation.

Do not try to cross the Motorway to get to an emergency telephone on the other side.

If something falls from your vehicle on to the Motorway, do not attempt to recover it yourself.

Remember, in the event of an accident, breakdown or emergency, you must ensure your own personal safety as well as the safety of others at risk.

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Night Driving

A common time for accidents to occur is when driving at night.

You should ensure that all the front and rear lights, brake lights, reflectors, indicators, reflective markings, side marker lamps, number plates and number plate lighting are clean and can be clearly seen by other road users.

Always dip your headlights when meeting oncoming traffic, or when following behind traffic so as not to dazzle the driver in front in the mirrors.

When driving in dense fog, day or night, use dipped headlights and front and rear fog lights if fitted.

Make sure to switch off the fog lights when they are no longer needed. Failing to do so can cause dazzle to following drivers who may not then see brake-lights coming on in front of them, or may not see other hazards on the road.

Drive at a speed that allows you to stop within the distance covered by your lights. Do not wear tinted or sunglasses at night (or in poor visibility). Whilst being aware of the official lighting up time, always use lights as appropriate to the conditions prevailing at any time of the day. Allow time for your eyes to adjust from brightly lit conditions into the darkness and vice-versa, (this advice may also apply to driving in and out of tunnels). Always use dipped headlights in built up areas at night as it helps others to see you and aids your visibility.

Give yourself time to adjust to dark conditions and remember it is more difficult to judge speed and distances at night and in dark conditions.

If you are dazzled, the advice given in the Rules of the Road is; slow down and stop if necessary. Always watch for pedestrians or cyclists on your side of the road. If the dazzle is from an oncoming vehicle, avoid it by looking towards the verge (edge of your side of the road) until the vehicle has passed. If the dazzle is from a vehicle behind you and reflected in your mirror, operate the night driving mode on the mirror. (if fitted).

Remember, in the event of an accident, breakdown or emergency, you must ensure your own personal safety as well as the safety of others at risk.

Drivers should be particularly aware of the effects of sun-glare, especially on a wet road, where pedestrians, cyclists, children, motorcyclists and smaller vehicles may become temporarily invisible. Before every journey, drivers should ensure that the windscreen is clean and clear on the inside as well as on the outside. During journeys, take time to clean it as necessary.

Signals

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Avoid giving signals which could confuse – especially when you are going to pull up just after a road on the left when another road user might misunderstand the meaning of the signal.

Do not give unauthorised signals – despite how widely you assume they are understood.

This applies to headlight "codes" and alternating indicator signals. Always consider the effect of flashing your main beam headlights or the use of alternating signals might have on other road users.

Daytime Running Lights (DRLs).

Daytime running lights make vehicles easier to see and increase road safety by reducing the number and severity of road traffic collisions. They involve motorists either using their dipped headlights during the hours of daylight or using dedicated DRLs. Do not use parking lights as DRLs. The RSA recommends that you drive with your dipped headlights switched on during the hours of daylight. They are particularly effective in:

- Preventing head-on and front corner collisions which frequently occur during the daytime
- Making it easier to identify oncoming vehicles in the distance
- Promoting safe user behaviour
- Encouraging all motorists to turn their dipped headlights on
- Ensuring all lights are clean and in proper working order
- Exposing motorists with faulty lights
- Making your vehicle more visible to other road users

Drivers should be aware that Daytime Running Lights (DRLs) are generally only shown to the front of the vehicle and do not show red tail-lights. For that reason, drivers should switch on their dipped headlights in low light or adverse weather conditions.

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Sample Accident Report Form

In order to help drivers recall key information relating to an accident, it is important to have an Accident Report Form readily available in the cab of the vehicle. Once the accident scene is safe the driver should complete as much of the form as possible and include a sketch of the accident showing roads, junctions, roundabouts, bends, and the position of the vehicles, etc. Further information should be recorded on the back of the Report Form. The example below is a form typically used for this purpose. Your company may have a different version which you should complete. It is good advice to carry several blank copies of an Accident Report Form in the cab of your vehicle and also to have a working pen available.

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Some drivers take photographs of an accident scene either using a camera or a mobile phone. If doing so, be careful to avoid inadvertently placing yourself in danger by e.g., stepping backwards to get a wider shot of a road or traffic lane.

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 If you are involved in an accident, what must you do first?

Your Response

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Q.2 List 3 things you should not do if you are involved in an accident.

Your Response

Q.3 Where should you avoid placing a red warning triangle?

 $\mathbf{0}$ 4. List 2 important items to be carried in a vehicle for use in the event of an accident

Your Response

Q.4 List 3 important items to be carried in a vehicle for use in the event of an accident, emergency or breakdown.

Your Response

Q.5 When should you routinely check that the wheelnuts are tightened correctly?

Your Response

Q.6 In sequence what are the first 3 things you should do at the scene of an accident or emergency?

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the section on Accidents, Emergencies and Breakdowns.

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SECTION I – AWARENESS OF THE RISKS OF MANUAL HANDLING

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Professional drivers are at risk of accident or injury as a result of the physical effort in the handling of loads, whether that is goods or passengers luggage. This section provides backgrounds to the risks associated with manual handling and provides important advice to help drivers avoid injury.

How the Law seeks to protect workers.

Under the general Application Regulations, manual handling is defined as `Any transporting or supporting of a load by one or more employees, and includes lifting, putting down, pushing, pulling, carrying, or moving a load, which by reason of its characteristics or of unfavourable ergonomic conditions involves risk, particularly of back injuries, to employees. Council Directive 90/269/EEC sets out health and safety requirements for manual handling, particularly where there is a risk of back injury to workers.

The manual handling of loads regulation and its related schedule sets out a framework for employers to reduce the risk of injury from manual handling activity. Manual handling includes the use of the human body to lift, lower, fill, empty, or carry loads and also includes climbing, pushing, pulling, and pivoting, all of which pose the risk of injury to the back. The load can be inanimate (an object) or animate (animal or person) and manual handling injuries occurs in most industrial sectors including transport, manufacturing and warehousing, retail, construction, agriculture and the health care sector.

Council Directive 90/269/EEC

Council Directive 90/269/EEC sets out health and safety requirements for manual handling, particularly where there is a risk of back injury to workers.

It seeks to reduce the very large incidence of injury and ill health arising from the manual handling of loads at work. The main concern with manual handling activity is the increased risk of injury due to wear and tear on the back, especially on the lumbar inter-vertebral discs. Professional drivers have additional risks repeated on a daily basis due to their work routines. For example, coach drivers are routinely involved in loading/unloading luggage on a daily basis. Goods drivers regularly handle loads where automation such as forklifts and hoists are not available. When things go wrong, a common injury that occurs is back injury. Back injuries can be painful and reduce one's mobility and can lead to long absences from work and are among the main causes of early disability. Almost every occupational setting requires some form of manual handling. Space limitations, the varied nature of the activity, and the reluctance to make substantial investment in mechanised/ automated equipment are some of the reasons for not avoiding or reducing manual handling. Invariably, the abilities of individuals to perform these activities, either frequently or occasionally, are exceeded, resulting in severe or acute injuries.

As with all risk assessment drivers or owner/ operators should seek to reduce or eliminate the risk. In order to do that,

there are four key requirements:

- Avoidance of Manual Handling
- Reduction of Manual Handling
- Risk Assessment of Manual Handling Tasks
- Provision of Instruction and training for relevant employees

Traditionally in Ireland there has been an over reliance on the provision of training in correct manual handling as the only means of reducing the risk of injury. Current scientific evidence now tell us that training interventions predominantly based on technique training have no impact on work practices or injury rates (Hignett 2003) Manual Handling is a physical activity that takes place in every workplace, and in some cases the activity does not pose a problem. However it can be a potential workplace hazard when an employee for example is required to handle heavy loads, which could result in a back injury. It will be necessary to carry out a risk assessment of existing manual handling tasks before making an informed decision on which manual handling tasks need to be avoided or reduced. Employers and owneroperators must then take steps to avoid or reduce the risk of injury. As with all risk management, drivers and owner-operators should seek to reduce or eliminate the risk. In order to do that there are four key requirements;

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HAZARDS AND RISKS ASSOCIATED WITH MANUAL HANDLING OF LOADS IN THE WORKPLACE

Where possible the risks from Manual Handling should be eliminated or reduced through

- the use of lifting aids
- reducing the load
- sharing the load; and
- providing training in ergonomic lifting techniques

Injuries can be as a result of a single incident, from the cumulative effect of manual handling or from repetitive actions.

Potentially injurious tasks may involve bending and twisting, repetitive motions, carrying or lifting heavy loads, and maintaining fixed positions for a long time.

An effective manual handling risk assessment process highlights the need for proactive ergonomics at the planning and design stage, and



explains how the risks associated with manual handling can be avoided or reduced through better planning, consultation and systematic management.

It provides ideas for solutions to different manual handling problems.

Not all the ideas will be relevant in all circumstances; different manual handling situations require different solutions, depending on the nature and extent of the risk. It is not within the scope of this manual to deliver specific manual handling training or to cover in detail the area of back care management and injury management. These are necessary elements of back injury prevention, which need to be considered but fall outside the realms of the manual handling regulations. Nevertheless, drivers need to be aware of steps which they can take to protect themselves from the effects of poor manual handling techniques.

How MHL can affect workers' health

Manual handling of loads may cause:

- cumulative disorders due to gradual and cumulative deterioration of the musculoskeletal system through continuous lifting/handling activities, e.g. low back pain; Drivers are particularly at risk due to the repetitive nature of their work.
- acute trauma such as cuts or fractures due to accidents.

Back pain is a major work-related health complaint (23.8 %) in the EU, with significantly more workers (38.9 %) affected in the new Member States.

What makes MHL hazardous?

There are several risk factors that make MHL hazardous and thereby increase the possibility of injury. Particularly for back injury, they are related to four aspects of MHL.

The task

The risk of back injury increases if the task:

- is too strenuous, e.g. it is carried out too frequently or for too long a time;
- involves awkward postures or movements, e.g. a bent and/or twisted trunk, raised arms, bent wrists, over-reaching;
- involves repetitive handling.

The individual

Some individual factors might affect the risk of back injury:

- lack of experience, training and familiarity with the job; If you are at risk as a result of these reasons, seek help or guidance from a competent person.
- age the risk of low back disorders increases with age and with the number of years at work;
- physical dimensions and capacity such as height, weight and strength;
- prior history of back disorders.

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The load

The risk of back injury increases if the load is:

- too heavy: there is no exact weight limit that is safe — a weight of 20–25 kg is too heavy to lift for most people;
- too large: if the load is large, it is not possible to follow the basic rules for lifting and carrying — to keep the load as close to the body as possible; thus, the muscles will get tired more rapidly;
- difficult to grasp: this can result in the object slipping and causing an accident; loads with sharp edges or with dangerous materials can injure workers;
- unbalanced or unstable: this leads to uneven loading of muscles and fatigue due to the centre of gravity of the object being away from the middle of the worker's body;
- difficult to reach: reaching with outstretched arms, or bending or twisting the trunk takes greater muscular force;
- of a shape or size that obscures the worker's view, thus increasing the possibility of slipping/ tripping, falling or collision.

The environment

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The following characteristics of the work environment may increase the risk of back injury:

- insufficient space for MHL may lead to awkward posture and unsafe displacement of loads;
- an uneven, unstable or slippery floor may increase the risk of accidents;
- heat makes workers feel tired, and sweat makes it hard to hold tools, meaning that more force must be used; cold can make hands numb, making it hard to grip;
- insufficient lighting may increase the risk of accidents, or force workers into awkward positions to see clearly what they are doing.

Risk assessment

Employers are required to assess the health and safety risks that their employees face. Simple steps can be followed to carry out an effective risk assessment.

- Look out for hazards that could cause accidents, injuries or ill health.
- Evaluate who might be harmed and how this might happen.
- Evaluate whether existing precautions are adequate or if more should be done.

Monitor the risks, and review preventive measures.

Prevention measures

Accidents and ill health can be prevented by eliminating or at least reducing MHL risks. The following hierarchy of prevention measures should be used.

- Elimination consider whether MHL can be avoided, for example by using powered or mechanical handling equipment such as conveyers or lift trucks.
- Technical measures if MHL cannot be avoided, consider the use of supporting devices such as hoists, trolleys and vacuum lifting devices.
- Organisational measures such as job rotation and the introduction of breaks of sufficient length should only be considered if elimination or reduction of MHL risks is not possible.
- Provide information on the risks and negative health effects of MHL, and training in the use of equipment and correct handling techniques.

Rehabilitation and reintegration of workers with musculoskeletal disorders (MSDs) back into work should form an integral part of workplace MSD policy. This will improve workers' health and wellbeing, and prevent reductions in productivity.

CORRECT HANDLING TECHNIQUES

Lifting

Before successfully lifting a load you need to **plan** and **prepare** for the task.

Make sure that:

- you know where you are going;
- the area where you move is clear of obstacles;
- you have a good grip on the load;
- your hands, the load and any handles are not slippery;
- if you are lifting with someone else, both of you know what you are doing before you start.

You should use the following technique when lifting a load.

- Put your feet around the load, with your body over it (if this is not feasible, try to get your body as close as possible to the load).
- Use the muscles of your legs when lifting.
- Straighten your back.
- Pull the load as close as possible to your body.

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Lift and carry the load with straight downward turned arms.

Pushing and pulling

It is important that:

- Drivers should take extra care and use a safe technique when coupling or uncoupling a trailer, particularly those fitted with the newer 'self-sealing' couplings. NOTE : Due to the automatic supply of pressurised air, additional effort may be required when pushing or pulling a 'Suzie' (air-line)
- pushing and pulling is done using the body's own weight; lean forward when pushing, lean backwards when pulling.
- you have enough grip on the floor to be able to lean forward/backwards;
- you avoid twisting and bending your back;
- handling devices have handles/hand grips so that you can use your hands to exert a force; handle height should be between the shoulder and waist so that you can push/pull in a good, neutral posture;
- handling devices are well-maintained so that the wheels have appropriate size and they run smoothly;
- floors are hard, even and clean.

It is accepted that there are situations where the cause of injury may be multi-faceted, however the official HSA statistics do show a large incidence of injury due to manual handling activity.

MAKING A SUCCESSFUL LIFT

As already noted, making a successful lift requires careful planning and preparation.

Step 1. Planning

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Assess the load

- Determine the objects weight:
- Is it evenly distributed, can you lift it on your own, or will you require help?
- Inspect it for slivers, sharp edges, rough or slippery surfaces.
- Decide how to hold the load.
- Keep heaviest side to body.
- If it is too large/heavy use a trolley or get assistance.

Assess the area

Make sure the path is clear. Look for obstructions, spills, steps, etc.

- Think about the best way to lift the load. For a long lift – such as floor to shoulder height – consider resting the load mid-way on a table or bench in order to change grip.
- Do not carry a load that obstructs your view.

Step 2. Preparation

Place the feet

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- Flat on the floor for stability.
- About hip distance apart.
- Positioned in direction of travel.
- Place one leg slightly forward to help maintain balance (alongside the load if it is on the ground).

Bend the knees

- Lower the body by relaxing the knees.
- This brings you (and your centre of gravity) closer to the load.
- Gives greater stability.
- Allows legs to do work.

Maintain normal curves of the back

- Keep chin tucked in.
- At start of the lift keep the back straight but inclined forward.
- Avoid twisting the trunk or leaning sideways, especially while the back is bent.
- Keep shoulders level and facing the same direction as the hips. Turning (by moving the feet) after lifting is better than twisting and lifting at the same time.

Firm Grip

- Take a firm grip by using the palms of the hands and the fingers.
- Taking weight on finger tips will create pressure at the end of fingers and could strain muscles and tendons in the arms.
- Lean forward a little over the load if necessary to get a good grip.
- Place hands diagonally to each other on the object to be lifted.
- If you need to change your grip set the load down – don't attempt to do it while walking.

Keep the load (and your arms) close to your waist

- Minimise the distance between your lower back and the centre of gravity of the load.
- **Try hugging it close to the body if possible.**

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- Keep the heaviest side of the load next to your body.
- If a close approach to the load is not possible, try sliding it towards you before attempting to lift it.
- Lift smoothly, raising the chin as the lift begins, keeping control of the load.

Pivot feet in direction of move

- Spinal discs are most vulnerable to twisting, turning, bending forwards/sideways while lifting.
- If you must turn, move your feet, not your waist.
- This allows weight to be transferred from foot to foot, instead of on your discs.
- Do not turn at the waist to change direction or to put an object down.
- Put the load down, then slide it into the desired position.



Seven points to a successful lift

- 1. Assess the task, the area and the load
- 2. Place the feet

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- 3. Bend the knees
- 4. Maintain normal curves of the back
- 5. Firm grip
- 6. Keep the load (and your arms) close to your waist
- 7. Turn feet in direction of movement



Safety Tips for Transport Drivers

- High visibility clothing and safety footwear must be worn.
- Report to security before entering and leaving any premises.
- Observe due care while driving on the premises.
- Use reverse alarm when reversing.
- Only load and unload in specified areas.
- Obey all safety signs.

- Report all accidents and incidents, including spills and leaks.
- Never obstruct an emergency exit or route.
- No smoking at any time.
- Make sure to use handling aids such as a sack truck or hand pallet truck.
- Plan the loading of the vehicle, e.g. last goods in, first goods out.
- Ensure good housekeeping within the van / truck.
- Allow for safe access routes during loading and unloading.
- Only have one pallet at a time on a tail- lift.
- Where possible, always stand sideways on the tail-lift.



Note: This is not a Manual Handling training programme.

If you wish to obtain a recognised qualification in Manual Handling, you should contact an appropriately qualified Manual Handling instructor.

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Manual Handling Risks

The table below gives typical examples of the risks associated with manual handling. The list is not exhaustive.

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Risk Factor	Example
The load is too heavy.	A person has to manually lift a part from floor level to waist height.
The load is too large.	A long or bulky load has to be lifted down a stairwell.
The load is unwieldy or difficult to grasp.	This includes bulky loads with sharp edges or loose contents. It could also include a patient while being transported in a hospital setting.
The load has to be held a distance from the trunk.	A person has to over-reach when lifting a heavy load into or onto a vehicle.
The physical effort is too strenuous.	A heavy load is manually lifted from a truck.
The physical effort is only achieved by a twisting movement of the trunk.	A person with restricted room for movement has to lift a load from a pallet.
The physical effort is likely to result in a sudden movement.	A load which had been jammed suddenly comes free and the handler is unprepared and cannot control it.
The physical effort is made with the body in an unstable posture.	A person stands on an insecure support while carrying out a lifting operation.
There is not enough vertical room to carry out the activity.	A person has to lift product through a narrow aisle.
The place of work prevents the handling of loads at a safe height.	A person has to lift product above shoulder height.
The floor is slippery, uneven or unstable.	A surface with cracks or spillages makes secure footing difficult.
The temperature, humidity or ventilation is unsuitable.	Excessive heat, cold, dust, noise or lack of air makes conditions unsuitable.
Over-frequent or prolonged physical effort involving the spine.	Work which involves bending the back for long periods of time.
There is insufficient rest or recovery time.	A rest phase of light activity should alternate with more demanding activity.
There is excessive lifting, lowering or carrying distances.	Lifts of heavy loads beginning or ending at floor level or above shoulder height.

Your trainer will now facilitate a short discussion on typical manual handling risk factors associated with driving as a professional bus or truck driver.

The HSA Manual Handling Risk Assessment Case Study Videos illustrate the approach that should be taken when carrying out manual handling risk assessments.

The FAQ section provides basic coverage of the main questions that drivers might need answered in relation to manual handling issues.

See www.hsa.ie/eng/Workplace_Health/Manual_Handling

As an example, your trainer will now show a short Case Study video clip outlining some of the risks which a professional bus or truck driver may encounter when moving a heavy or awkward load.

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SELF-ASSESSMENT OF KNOWLEDGE

Please complete the following questions to help assess your understanding of this section:

Q.1 In order to make a successful lift what 2 key steps should a driver take?

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Q.2 What percentage of workers in Europe complain of back pain?

Your Response	

Q.3 If you need to change your grip on a load what should you do first?



Q.4 What are the consequences of injuring your back?

	Your Response	

Q.5 As part of step 1 in making a successful lift, list 3 things a driver should look out for.

Your Response

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Q.6 What is the correct placement of your feet when lifting?

Your Response

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Q.7 If a close approach to the load is not possible what should you do?

	Your Response	

Q.8 Why are spinal discs subject to an increased risk of injury?

Your Response						
0 Namo ono bo	nofit from niv	oting your fo	ot in the dire	ction you are m	oving while	

Q.9 Name one benefit from pivoting your feet in the direction you are moving while lifting an object

Your Response

Having completed these questions, your trainer will discuss typical answers with the group to ensure that drivers have a comprehensive understanding of the information and guidance provided.

If you would like more information on any of the issues raised during this exercise, ask your trainer who will be pleased to discuss the issues and will encourage other participants to share their experiences to the benefit of all.

This concludes the CPC module on Health and Safety for the Professional Driver.

Your trainer will ask you to complete a training evaluation form which will provide them and the RSA with important feedback on your experiences today. You will also be provided with a receipt confirming your attendance. You will be able to check your personal CPC training record by visiting the My CPC Portal on the RSA website. See appendix 7 at the back of this manual for information on how to check your record.

In conclusion, please carefully check your training record prior to making arrangements to attend additional modules. Failure to do so may result in drivers attending and paying for CPC training unnecessarily.

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LIST OF APPENDICES

The following appendices are provided as an information resource for professional drivers. It may help to refer to them when you require particular information. Please be aware that regulations, conditions and standards can change from time to time and up-to-date information is available on the RSA website at www.rsa.ie

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- 1. Walk-around Checks
- 2. Road Signs of Particular Interest to Drivers of Large Vehicles
- 3. Motorway and Dual-Carriageway Speed Limits
- 4. Changes to Rigid-and-Drawbar-Trailer Weight Limits
- 5. Penalty Points List
- 6. Stress Reduction Techniques
- 7. Driver Portal

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- 8. Glossary of Terms used in the Transport Industry
- 9. Reflection on CPC workshop.
- 10. RSA Posters on excessive speed
- 11. References

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APPENDIX 1 Daily walk-around checks

Responsibilities of the driver

Before driving the vehicle in a public place the driver of a CVR vehicle must conduct a visual inspection of the condition of the interior and exterior of the vehicle by walking around it.

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What do daily walk around checks entail?

Walk-around daily checks prior to driving the vehicle are a simple and effective way to spot potentially dangerous issues before vehicles are used. These walk-around checks may be carried out by any person trained to conduct such checks, including drivers or mechanics.

Potential vehicle roadworthiness issues can also be identified while they are being driven, and driver feedback is a good source of information on vehicle condition.

Obligations in relation to recording of defects

For the daily walk-around checks to be effective, there must be a system in place for reporting and recording vehicle defects. It is good practice for drivers to carry a book of check-sheets and defects forms, or an electronic recording device, where all completed checks and any defects can be recorded.

When a defect is identified during an inspection, the following information must be recorded:

Description of the defect

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- Time and date of the discovery of the defect; and
- Any temporary measure taken to mitigate the effect of the defect

Detection of defects by drivers when on the road

If a defect to a vehicle is likely to be a danger to the vehicle or other road users when on the move, the driver should stop driving the vehicle as soon as possible at a safe location, and not drive the vehicle again until the defect is inspected and, if necessary, repaired by a suitably qualified person.

Vehicle owners should be aware that they may be prosecuted if they knowingly, or could have discovered by the exercise of ordinary care, caused or permitted a driver to drive a defective vehicle.

Repairing defects to vehicles

All reported defects must be followed up and appropriate action must be taken before the vehicle is used on a public road. The corrective action taken must be recorded and included in the vehicle's maintenance record.

See sample Walk-around check sheets and defect reports.

See www.rsa.ie/cvrt for further information

Overleaf you will find a useful guide to carrying out vehicle walkaround checks, following on from which you will find typical examples of walkaround check-sheets which should be used to record the status of each item – defect or ok. Your company may have an alternative version which you should use.





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	Bu	ıs / PSV Driver	Walk-Arou	nd Ch	eck She	eet			
Vehicle Regis	/ehicle Registration Mileage			ОК	-				
Numbe	Number				Defect	X			
		Che	eck Items						
In-Cab Check	(S								
1	Good visibility for driver through bus windows and mirrors. All required mirrors fitted and adjusted correctly.								
2	Driving controls, seat and driver safety belt adjusted correctly.								
3	Windscreen washer, wipers, demister and horn operating correctly.								
4	Tachograph calibrated with correct hours. Speed limiter plaque displayed.								
5	All instruments, gauges and other warning devices operating correctly (including ABS/EBS in-cab warning lights).								
6	No air leaks or pressure drop.								
PSV Checks									
7	Fire exting	guisher, first aid kit, emergency h	ammer (if applicable) in pl	ace and servi	ceable.				
8	Passenger	r safety belts, seats, handrails, wa	lkways, lighting and lugga	ge racks in go	ood condition.				
9	Emergenc	y exit door and buzzer working o	correctly. Emergency signs	in place.					
External Vehi	icle Checl	ks							
10	Vehicle sitting square and not leaning to one side.								
11	Tax disc, insurance disc and PSV plate (if applicable) present and valid. Number plates clearly visible.								
12	Wheels in good condition and secure. Tyres undamaged with correct inflation and tread depth.								
13	All lights and reflectors fitted, clean and in good condition.								
14	Exhaust secure with no excess noise or smoke.								
15	Vehicle body work in good condition, fuel cut off working.								
16	Vehicle access, steps, handholds and surfaces in good condition.								
17	Air suspension correctly set (if fitted).								
18	Engine oil	, water, windscreen washer reser	voir and fuel levels checke	ed and no leak	s (including fuel	cap).			
Prior to Leav	ing Depo	t							
19	Steering and brakes operating correctly.								
20	Luggage door secure.								
On-the-Road									
21	Tachograph, speedometer and speed limiter operating correctly.								
22	ABS/EBS warning lights off.								
Defect Detail	Defect Details								
Signed				Date					
			1.1.1.1						

NOTE: This is a sample driver walk-around Bus / PSV checklist. It is recommended that operators prepare their own driver walk-around checklists to account for the type and use of their own vehicles.



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		HGV Driver W	alk-Around	Check Sh	eet		
Vehicle Registration Number						ОК	-
			Mileage			Defect	X
		Che	ck Items				
In-Cab Cheo	:ks					<u> </u>	
1	Good visibility for driver through cab windows and mirrors. All required mirrors fitted and adjusted correctly.						
2	Driving controls, seat and driver safety belt adjusted correctly.						
3	Windscreen washer, wipers, demister and horn operating correctly.						
4	Tachogra	ph calibrated with correct hours.	Speed limiter plaque displa	yed.			
5	All instruments, gauges and other warning devices operating correctly (including ABS/EBS in-cab warning lights).						
6	No air lea	ks or pressure drop.					
External Ve	hicle Chec	ks					
7	Vehicle sit	tting square and not leaning to o	ne side.				
8	Tax, insura	ance and transport discs (if applie	cable) present and valid. Nu	mber plates clearly visi	ble.		
9	Wheels in	good condition and secure. Tyre	s undamaged with correct	inflation and tread dep	th.		
10	All lights,	reflectors and markings fitted, cle	ean and in good condition.				
11	Exhaust secure with no excess noise or smoke.						
12	Air & electrical suzies and connectors fitted correctly (inc. ABS / EBS cable).						
13	Vehicle access, steps, catwalk or drawbar coupling in good condition.						
14	Vehicle body / wings / guards, side and rear / curtains and straps / doors / tail lift in good condition.						
15	Fifth wheel located and locked correctly, landing legs and handle in correct position.						
16	Trailer park brake operating correctly.						
17	Air suspension correctly set.						
18	Engine oil	l, water, windscreen washer reser	voir and fuel levels checked	l and no leaks.			
Prior to Lea	ving Depo	ot				-	
19	Steering and brakes operating correctly.						
20	Loads secured and weight distributed correctly.						
On-the-Roa	d						
21	Tachogra	ph, speedometer and speed limit	er operating correctly.				
22	ABS/EBS warning lights off.						
Defect Deta	nils						
Signed			1	Date			

NOTE: This is a sample driver walk-around HGV checklist. It is recommended that operators prepare their own driver walk-around checklists to account for the type and use of their own vehicles.







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APPENDIX 2

Road signs of particular interest to drivers of large vehicles.

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See Rules of the Road for the complete list of Road Signs.



Height Restriction



to Weight



School Warden



Clearway

K x3

No Entry for HGVs. by no. of axles

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No Entry by reference



Contra-flow bus lane



Tram lane on right



No Parking of Large Vehicles



Cycle Track



Tunnel Speed Limit



Variable Speed Limit



Move to Left Hand Lane



Tunnel lane open



Tunnel Lane Closed



Move to Left Hand Lane

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Tunnel Lane Prohibition







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Axle weight restriction



No entry to vehicles



Width restriction



Lay-by Ahead



Lay-by facilities



Parking Bay for **Disabled Persons**



Motorway ahead



End of Motorway

SOS

SOS Lay-by



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300 metres to next exit



Traffic Calming



Speed Limits per lane



Speed control ramps



Speed limit sign for minor local roads



No overtaking for 3 axle vehicles



Overhead variable Message



Cluain Dolcáin LONDALKIN

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Ceansú Tráchta TRAFFIC CALMING

Speed camera ahead



Alternative Route for High Vehicles





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APPENDIX 3

Motorway - Dual carriageway.

1. HGVs;- The ordinary speed limit for HGVs is increased to 90 km/h on motorways where no lower speed limit is in place.

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You must not use the lane nearest the central median, that is, the outside lane (lane 2 or lane 3, depending on the number of lanes), if you are driving; a goods vehicle with a maximum authorised mass of more than 3,500 kilograms, such as a lorry or heavy goods vehicle, or a vehicle towing a trailer, horsebox or caravan. See Appendix 5 on Page 72 for details of the penalty points offence of driving a vehicle subject to an ordinary speed limit of 90 km/h or less on the outside lane of a motorway. You may use it, however, in exceptional circumstances when you cannot proceed in the inner lane because of an obstruction ahead.

- 2. The ordinary speed limit for HGVs is 80km/h on a dual carriageway. A HGV may use the outside lane of a dual carriageway.
- 3. Buses;- The ordinary speed limit for buses is increased to 100km/h on motorways and dual carriageways where no lower speed limit is in place.

However, see restriction below relating to vehicles designed to carry standing passengers and Appendix 5 on Page 72 for details of the penalty points offence of driving a vehicle subject to an ordinary speed limit of 90 km/h or less on the outside lane of a motorway.

4. Buses not designed to carry standing passengers may use the outside lane of a motorway or dual carriageway.

Type of Vehicle	Built up Areas	Regional or Local Roads	Ordinary Speed limit on National Roads (Primary or Secondary)	Ordinary Speed limit on a Dual Carriageway	Ordinary Speed limit on a Motorway	Permitted in outside lane of a Dual carriageway	Permitted in outside lane of a Motorway
Car or Motorcycle	50 km/h	80 km/h	100Km/h	100 km/h	120 km/h	Yes	Yes
Bus/coach	50 km/h	80 km/h	80 km/h	100 km/h	100 km/h	Yes	Yes
Bus (designed to carry standing passengers)	50 km/h	65 km/h	65 km/h	65 km/h	65 km/h	Yes	No *see Appendix 5 – (List of Penalty Point and Fixed Charge Notices and Note 3 above)
Truck	50 km/h	80 km/h	80 km/h	80 km/h	90 km/h	Yes	No *See Appendix 5 – (list of Penalty Point and fixed Charge Notices and Note 1 above).

This table is provided for information purposes only. Drivers should always refer to the most recent version of the Rules of the Road.

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APPENDIX 4

Changes to Rigid and Drawbar Trailer Weight Limits.

These changes relate to the introduction of the 46 tonne national weight limit for six (or more) axle rigid and drawbar trailer combinations

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New Regulations relating to combinations operating at 46 tonnes g. v. w. came into effect on 1-June-2015.

The new Regulations are titled the Road Traffic (Construction and Use of Vehicles) (Amendment) Regulations 2015 (S.I. No. 136 of 2015), amending the Road Traffic (Construction and Use of Vehicles) Regulations 2003 (S.I. No. 5 of 2003), otherwise known as the 'C&U' Regulations.

A summary of the qualifying criteria necessary for 46 tonne operation is as follows:

- 1. Rigid vehicles and drawbar trailers already in service prior to 1 June 2015 will require air suspension or equivalent systems1 and Electronic Braking Systems (EBS). Anti-lock Braking Systems (ABS) are not sufficient.
- 2. New rigid vehicles registered on or after 1 June 2015, will in addition to requiring air suspension or equivalent systems and EBS, also require Electronic Stability Control (ESC). However an exemption from the ESC requirement is provided for rigid vehicles having more than 3 axles.
- 3. New drawbar trailers licensed on or after 1 June 2015, will in addition to requiring air suspension or equivalent systems and EBS, also require Roll Stability Control (RSC).
- 4. The distance between the rearmost axle of the towing vehicle and the foremost axle of the trailer must be 3 meters or greater to operate at a gross combination weight of 46 tonnes.

Changes to Roadworthiness (CVR) Test requirements

Since 1st June 2015, 'manual shut-off' taps will no longer pass the CVR test. Trailer brake lines must be fitted with 'self-sealer' couplings.

This is naturally important for operators but is equally important for the drivers who will need to couple or un-couple a trailer. Drivers who are unfamiliar with the 'self-sealing' coupling devices should fully familiarise themselves with their safe operation before attempting to couple or un-couple a trailer. Because of the automatic supply of pressurised air, it is vitally important to follow a safe procedure. If you do not know how to use them, get someone competent to show you and then practice under their guidance - before attempting it alone.

Further information can be obtained at vehiclestandards@rsa.ie where a FAQ document is available, or by calling the RSA on 096)25014 between 8.00 am and 6.00 pm, Monday to Friday. Please note that the FAQ document is not an interpretation of the law.

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APPENDIX 5 Penalty Points

As a professional driver the accumulation of Penalty Points on your driving record can impact negatively on your ability to secure employment or to obtain Insurance cover. The following information is provided to inform and assist you in avoiding their accumulation.

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OFFENCES INCURRING PENALTY POINTS AND FIXED CHARGE NOTICES AT 8 DECEMBER 2014

These are summary descriptions of the offences and not a legal interpretation.

Offences incurring Penalty Points and Fixed Charges	Penalty points on payment	Penalty points on conviction	Amount paid in 28 days Fixed Charge €	Amount paid in next 28 days Fixed Charge €
Learner permit holder driving unaccompanied by qualified person	2	4	80	120
Failure to display N Plate or tabard	2	4	60	90
Contravention of ban on U-turns	2	4	60	90
Contravention of rules for use of mini roundabouts	1	3	60	90
Proceeding beyond no entry to vehicles sign	1	3	60	90
Proceeding beyond a traffic lane control sign other than in accordance with such sign or without yielding	1	3	60	90
Using vehicle in a public place that has been modified or altered such that authorisation plate is inaccurate	3	5	60	90
Using vehicle not equipped with a speed limitation device or using a vehicle equipped with	3	5	60	90
Proceeding beyond maximum vehicle length sign where length exceeds maximum displayed	1	3	60	90
Proceeding beyond maximum vehicle width sign where width exceeds maximum displayed	1	3	60	90
Proceeding beyond maximum design gross vehicle weight (safety) sign where design gross vehicle weight exceeds maximum displayed	1	3	60	90
Proceeding beyond maximum vehicle axle loading weight sign where	1	3	60	90
vehicle axle loading weight exceeds maximum specified		•		<u> </u>
Using vehicle (car) without valid test certificate (NCT)	3	5	60	90
Failure to drive on the left hand side of the road	3	5	60	90
Dangerous overtaking	3	5	80	120
Contravention of prohibition of driving vehicle along or across median strip	2	4	60	90
Failure to stop a vehicle before stop sign/stop line Failure to vield right of way at a vield sign (vield line	3	5	80	120
Failure to comply with mandatory traffic signs at junctions	2	5 4	80	120
Crossing continuous white line	3	5	80	120
Failure by vehicle to obey traffic lights	3	5	80	120
Failure to leave appropriate distance between you and the vehicle in front	3	5	80	120
Driving vehicle before remedying dangerous defect	m*	3	Court	Fine
Driving dangerously defective vehicle	m*	5	Court	Fine
Using commercial vehicle without certificate of roadworthiness Bridge strikes, etc.	m*	5	Court	Fine
Holding a mobile phone while driving	3	5	60	90
Failure to act in accordance with a Garda signal	1	3	80	120
Entry by driver into hatched marked area of roadway, e.g. Carriageway reduction lane	1	3	80	120
Pailure to obey traffic rules at railway level crossing Driving a vehicle on a motorway against the flow of traffic	2	5	80	120
Driving on the hard shoulder on a motorway	1	3	80	120
Driving a vehicle (subject to an ordinary speed limit of 90 kms per hour or less)	1	3	80	120
Failure to obey requirements at junctions,	1	3	60	90
e.g. Not being in the correct lane when turning onto another road			60	
e.g. Reversing from minor road onto main road	1	3	60	90
Driving on a footpath	1	3	60	90
Driving on a cycle track	1	3	60	90
Failure to stop for school warden sign	2	5	80	120
Failure to stop when so required by a member of the Garda Síochána	2	5	80	120
Failure to yield	2	4	80	120
Driving without reasonable consideration Failure to comply with prohibitory traffic signs	2	4	80 60	90
Failure to comply with keep left/keep right signs	1	3	60	90
Failure to comply with traffic lane markings	1	3	60	90
Illegal entry onto a one-way street	1	3	60 Court	90 Fine
Breach of duties at an accident	m*	5	Court	Fine
Speeding	3	5	80	120
Driving without insurance	m*	5	Court	Fine
Driver of Car or Goods vehicle not wearing safety belt Failure by Driver to comply with rear seat belt requirements for passengers under 17 years	3	5	60	90
Driver of car or goods vehicle permitting child under 3 years of age to travel in	3	5	60	90
it without being restrained by appropriate child restraint				
Driver of car or goods vehicle permitting child over 3 years of age to travel in it without being restrained by appropriate child restraint	3	5	60 60	90 90
Driver of car or goods vehicle permitting child to be restrained by rearward facing	3	5	60	90
child restraint fitted to a seat protected by active frontal air-bag	3	5	60	90
Driver of bus not wearing safety belt Driver found to be driving carelessly	3	5	60 Court	90 Fine
Using vehicle – (a) whose weight un-laden exceeds maximum permitted weight.	1	<u> </u>	200	300
(b) whose weight laden exceeds maximum permitted weight, or (c) any part of which		-		-
transmits to ground greater weight than maximum permitted weight		n /-		2
of alcohol per 100 millilitres of blood)	3	n/a	20	U
12 Penalty Points = Automatic Disqualification				
7 Penalty Points = Automatic Disqualification where the person was first issued with a learner permit on or after 1st August 20:	14, during the			
period the person drives under a learner permit and during the first two years while the person drives under a first full driving l * Mandatory Court Appearance	icence.			-RSA
managery over appearance		an state of	In a state of	
For mo	re informati	on visit pena	ittypoints.ie	

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APPENDIX 6

STRESS REDUCTION

The following information has been provided to help professional drivers practice stress reduction techniques. Anticipation and avoidance

Stress reduction technique 1

By anticipating stress you can prepare for it and work out how to control it when it happens. This can be done in a number of ways:

- 1. Rehearsal
- Polish performance and build confidence
- Practice for interviewing
- 2. Planning
- Analyse the likely causes of stress
- Plan your responses
- Use formal planning for this
- 3. Avoidance

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- If situation likely to be unpleasant
- Will not yield any benefit to you
- Should be one to avoid

Stress reduction technique 2

Reduce the importance of an event

Factors can make an event take a high level of significance and can cause stress:

- The importance and size of the event;
- The prospect of a large financial reward, of promotion, or of personal advancement;
- The presence of family, friends or important people;
- If event seems big compare it in your mind to bigger events you know of;
- If financial reward remind yourself there may be other opportunities;
- Focus on quality of your performance;
- If members of family are watching remember they love you;
- If important people are there remind yourself you will have other chances.

Stress reduction technique 3

Reduce uncertainty

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Uncertainty causes high levels of stress

Causes of uncertainty

- Not having a clear idea of what the future holds;
- Not having any career development plans;
- Not knowing what will be wanted from you in the future;
- Not knowing what your boss or colleagues think of your abilities;
- Receiving vague or inconsistent instructions.

How to address this

- Ask for information;
- Ask for performance review;
- Get clarification.

Stress reduction technique 4

Imagery

- Imagine pleasant scenes bring all senses into it;
- Use the place as a retreat from stress and pressure;
- Imagine mental pictures of stress flowing out of your body;
- Use imagery in preparation and rehearsal it allows you to pre-experience achievement of your goals.

Stress reduction technique 5

Meditation techniques

The essence of meditation is to quieten your thoughts by focusing completely on just one thing. Unlike hypnosis, which is a more passive experience, meditation is an active process, which seeks to exclude outside thoughts by concentrating all mental faculties on the subject of meditation.

In all cases it helps if your body is relaxed. It should be in a position that you can comfortably sustain for a period of time (20-30 minutes is ideal). Sitting in a comfortable chair or lying on a bed may be effective.

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A number of different focuses of concentration may be used. Which one you choose is a matter of personal taste. Some of these are detailed here:

Breathing

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A useful method may be to focus your attention on your breathing. Concentrate on breaths in and out. You can accompany this by counting your breaths using the numbers 0-9. You can visualise images of the numbers changing with each breath. Alternatively you could visualise health and relaxation flowing into your body when you inhale, and stress or pain flowing out when you exhale.

Focusing on an object

Here you completely focus attention on examination of an object. Look at it in immense detail for the entire meditation. Examine the shape, colour differences, texture, temperature and movement of the object. Objects often used are flowers, candle flames or flowing designs. However you can use other objects equally effectively (e.g. alarm clocks, desk lamps, or even coffee mugs).

Focus on a sound

Some people like to focus on sounds. The classic example is the Sanskrit word "Om", meaning "perfection". Whether or not this is practical depends on your lifestyle.

Imagery

This can be very refreshing and pleasant way of meditating. Here you create a mental image of a pleasant and relaxing place in your mind. Involve all your senses in the imagery: see the place, hear the sounds, smell the aromas, feel the temperature and the movement of the wind. Enjoy the location in your mind.

In all cases it is important to keep your attention focused. If external thoughts or distractions wander in, let them drift out. If necessary, visualise attaching the thoughts to objects and then move the objects out of your attention.

You will find that as you practise meditation your attention will improve.

Stress reduction technique 6

Keep things in perspective

- Under stress it is easy to lose perspective;
- Take a positive approach to life trying to find a good side to every situation - much less prone to stress;
- Learn to view mistakes as learning experiences;
- When you face what seems to be a huge, overwhelming problem, ask:
 - Is this really a problem at all? reframe it;
 - Is this a problem anyone else has or has had? - ask how they dealt with it;
 - Can you break it down? break into smaller, more manageable size;
 - If you are facing a lot of problems, can you prioritise them?
 - Does it really matter anyway?

Stress reduction technique 7

Taking exercise

- One of the best physical stress reduction techniques available, it:
 - Improves blood flow to your brain;
 - Gets rid of toxins from the body;
 - Releases endorphins into your blood stream. These give you a feeling of happiness and well-being.
- Make sure you get a customised exercise plan drawn up for you by professionals

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APPENDIX 7

The RSA has provided an online CPC Driver Portal to assist professional drivers in planning for their Periodic Training requirements/obligations. Checking their record will help drivers to avoid unnecessary costs and wasted time in attending the wrong CPC module. Drivers can also take a printout of the screen in order to assure employers on the status of their CPC qualifications.

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Once users click or screen is presented	the Register now button, the below 4. Fill in your Driver Number, Date of
Birth and email add (Note: Your Driver	Iress and click Register Number may be found at line 5 on
released plastic car	rd driving licence)
Driver Number:	123456
Date of Birth:	03 💌 03 💌 1980 💌
Email Address:	Luke@hotmail.com
	▶ Register

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Once logged in, the user will be presented with his/her training records as can be seen on the next page, the orange numerical tags highlighting the following:

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1. Links to supporting content and essential reading on the right-hand sidebar to aid the Driver.

2. Completed modules display the Module Name, Training Centre, Trainer, Status, a green tick and the date of completion. The green tick confirms that the training has been completed within the requisite period and is thus compliant.

3. Completed but Non-Compliant Modules display the Module Name, Training Centre, Trainer, Status, a red exclamation mark and date of completion. The red exclamation mark is to signify that in this instance the Driver is not compliant as training was not completed before the end of their training year. Driver needs to notify the RSA in writing of the reason that training was completed late.

4. Uncompleted modules display the Module Name, Status, a grey X and an N/A for the date completed.

5. Once each 5-year CPC cycle has passed, previous modules will be stored separately and a new table of modules will appear for the next 5-year period. There will be a maximum of 10 years of Driver Training Records displayed

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Cycle 2			▶ Update	My Details	• RSA
Module Name	Training Centre	Trainer	Status	Date Completed	Erequentity Asked Questions
Health and Safety of the Professional Driver			Not Completed	N/A	Compliance Explanation
Minimising risks and Managing Emergencies in the Transport Industries			🐰 Not Completed	N/A	Completed Modules If you have undergone training in accordance with legislation i.e.
The Professional Bus Driver			Not Completed	N/A	periodic training per year, your training record will be noted as
Role of the Professional Driver in the Transport Industries			Not Completed	N/A	Completed.
The Professional Truck Driver			Not Completed	N/A	The 'Completed but Non- Compliant' Module message
Control of Vehicle and Eco Driving Techniques			🔀 Not Completed	N/A	is not compliant. You may not have completed training as required. In other words you may
Cycle 1					not have completed one training module per year e.g. missed one year and caught up with two or more modules in a subsequent
Module Name	Training Centre	Trainer	Status	Date Completed	year. In this instance you must e- mail cocorsa is or write to the
Control of Vehicle and Eco Driving Techniques	Castlebar	Jimmy	Completed	27/03/2010	the reason for your non- compliance. This will enable the
Minimising risks and Managing Emergencies in the Transport Industries	Castlebar	Liam	Completed	25/06/2011	and change it to compliant.
Health and Safety of the Professional Driver	Castlebar	Mary	Completed	14/01/2012	
Role of the Professional Driver in the Transport Industries	Ballina	Liam	Completed but Non-Compliant	28/07/2012	
The Professional Bus Driver			X Not Completed	N/A	

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APPENDIX 8 Glossary of terms used in the transport industry

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TERM	MEANING
А	International motoring symbol for Austria
ABS	Anti-lock braking System
ACC	Adaptive Cruise Control
Accompanied	When a driver ships with the vehicle and load
Ad Blue	A Urea based additive for diesel fuel to reduce noxious emissions
ADI	'Approved Driving Instructor'- Accredited by RSA
ADR	'Accord Dangereuses Routier' - carriage of dangerous goods by road
Aduana	Identifies a Customs area or person (Spanish)
Air Dryer	A filtration system to remove moisture from air system
Ambient	The external temperature on any given day
AMT	Automated Manual Transmission
Artic	A tractive unit pulling a trailer
ASR	Anti skid reduction
AS-Tronic	DAF's automatic transmission system
ATA	Customs document for temporary import of goods
ATP	Certificate relating to refrigerated units
Autobahn	Motorway in Germany
Autopista	A toll road in Spain
Autovia	Motorway class road which is toll free (Spain)
В	International motoring symbol for Belgium
Baffles	Used to divide a road tank to reduce the effects of surge
BAR	A unit of pressure, 1 BAR = 14.72 psi
BG	International motoring symbol for Bulgaria
Caddie/s	A rolling pallet with a frame for cargo handling
Catwalk	A metal frame allowing safe passage on top of or around a vehicle or trailer
СН	International motoring symbol for Switzerland
Chilled	Temperature controlled cargo usually between 0c & 10c
CMR	'Convayance Merchandise Routier' - An International Transport Document (Also Insurance Document)
CNG	Compressed Natural Gas
COD	Cash on Delivery - Payment to be collected by driver
Consignee	The person or company receiving the load (Importer)
Consignor	The person or company sending the load (Exporter)
СРС	Certificate of Professional Competence – (manager)

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TERM	MEANING
СРС	Certificate of Professional Competence – (driver)
Cut-In	The shorter track taken by the rear wheels when turning
CVR	Commercial Vehicle Roadworthiness
Cyclops Mirror	Enables driver to see in of area in front of truck
CZ	International motoring symbol for the Czech Republic
D	International motoring symbol for Germany
Deep Frozen	Temperature controlled cargo usually between -15 to -30
DGSA	Dangerous Goods Safety Advisor
DGVW	Design Gross Vehicle Weight – Max weight of vehicle
Diff Lock	Differential Lock, used to stop drive wheels slipping on ice, gravel, loose surfaces only at very low speeds
DK	International motoring symbol for Denmark
Douane	Identifies a Customs area or person (French)
Drawbar	A rigid truck pulling a trailer
Drive Axle	The set of wheels which are driven by the engine
Driver Portal	The link on the RSA website which gives information on CPC attendance
Driver Qualification Card	A CPC card which must be carried at all times
Driving Ban	A restriction for heavy vehicles usually exceeding 7.5 t
DRL	Daytime Running Lights
DZ	International motoring symbol for Algeria
E	International motoring symbol for Spain
EBD	Electronic Brake force Distribution
EBS	Electronic Braking System
EEV	Enhanced Environmental Vehicle
EGR	Exhaust Gas Recirculation
ESP	Electronic Stability Programme
Euro 3, 4, 5,	A rating system for engine emmsions
Europallet	A pallet measuring 800 X 1000 mm
Eurotronic	Iveco's automatic transmission
F	International motoring symbol for France
Fifth Wheel	Connects tractor unit to trailer
Fridge	A temperature controlled unit for transporting cargo
Frozen	Temperature controlled cargo usually between 0c & -15c
GB	International motoring symbol for Great Brittan

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TERM	MEANING
GO-Box	Road Tolling System in Austria
GR	International motoring symbol for Greece
Green Diesel	Marked Gas Oil, not to be used in a road vehicle
Groupage	A load comprising of many consignors and consignees
GVW	The Gross Weight of the vehicle –(Truck, Trailer & Load)
Н	International motoring symbol for Hungary
Hanging Load	A load suspended from the roof of the cargo area (Meat)
Hazchem	See ADR
HGV	Heavy Goods Vehicle
Hybrid	Vehicle using Diesel & Electric Motors
I	International motoring symbol for Italy
IBC	Intermediate Bulk Container – Palletised liquid container
IRHA	Irish Road Haulage Association
IRL	International motoring symbol for Ireland
I-Shift	Volvo's automatic transmission (heavy FM, FH, & FH16)
I-Sync	Volvo's automatic transmission (light trucks FL & FE)
Jack-knife	When the tractor unit collides with the trailer
L	International motoring symbol for Luxembourg
Landbridge	To transit the UK when delivering to mainland Europe
LCS	Lane Control System, warns driver of vehicle direction
LCS	Lane Changing Support, warns driver of blind spot n/side
LEV	Low Emission Vehicle
LEZ	Low Emission Zone
LGV	Light Goods Vehicle
LHV	'Longer Heavier Vehicles' usually 25.25 metres long
Lift Axle	A set of wheels which can be lifted off the ground
Lo / Lo	Lift On / Lift Off – referring to containerised freight
LT	International motoring symbol for Lithuania
LV	International motoring symbol for Latvia
м	International motoring symbol for Malta
МА	International motoring symbol for Morocco
МАМ	Maximum Authorised Mass (Equates to Gross Vehicle Weight)
Manifest	A authorised list of the contents consignors & consignees

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TERM	MEANING
Master Switch	Turns off all electrical power in a vehicle
MAUT	Road Tolling System in Germany
MC	International motoring symbol for Monaco
МО	International motoring symbol for Moldova
Multi-modal	A load transported by at least two different means
Ν	International motoring symbol for Norway
NDLS	National Driver Licensing Service
Near side	The side of the vehicle nearest the kerb
NL	International motoring symbol for Netherlands
Off side	The side of the vehicle furthest from the kerb
Opticruise	Scania's automated transmission
Optronic	Renault's automatic transmission system
Р	International motoring symbol for Portugal
Pallets	A system used to ease the handling of cargos
Payload	The weight of the cargo a vehicle can carry
PCV	Passenger Carrying Vehicle
Peaje	A road toll booth, or a section of road that is tolled
Pin Release	Handle when pulled releases the Jaws from the Kingpin
Pin Weight	The weight exerted on the fifth wheel by the trailer
PL	International motoring symbol for Poland
POD	Proof of Delivery, document signed by receiver
РТО	Power Take-Off, using the vehicle to drive extra equipment by means of a drive-shaft
Pusher Axle	Axle placed usually placed in front of drive axle,
Range Change	A air/electric switch to select another range of gear ratios
Rear Steer	The rearmost axle of a rigid or trailer which steers itself
Retarder	A braking device operated independently
Rigid	A one piece vehicle
RO	International motoring symbol for Romania
Ro / Ro	Roll On / Roll Off – referring to trailer freight
Road Barrel	A method of transporting liquids substances by road
Rollcage	Cargo handling device on wheels
Route Express	Motorway class road which is toll free (France)
RSA	Road Safety Authority

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TERM	MEANING
RSM	International motoring symbol for Rep of San Marino
RUS	International motoring symbol for Russia
S	International motoring symbol for Sweden
SCR	Selective Catalytic Reduction
Semi Trailer	The trailer of an articulated vehicle
SF	International motoring symbol for Finland
SGR	Selective Gas Recirculation
Skeletal	A trailer for the transport of tank containers
SLO	International motoring symbol for Slovakia
Split Fridge	Trailer which can keep cargo at different temperatures
Splitter	An air/electric switch to select a high/low ratio of a gear
STC	Said to Contain, A clause inserted when receiving a load
Susies	Air and electrical connections between truck and trailer
Tachograph	A device that records the time, speed and distance travelled by a vehicle over 3.5 tonnes
Tag Axle	Axle affixed to rear of truck , not driven by engine
Tail Lift	Used for loading/unloading from truck without ramp
Tail-swing	The distance from rearmost axle to rear bumper
Telligent	Mercedes automated transmission and driving system
Tip-matic	MAN's automatic transmission system
TIR	'Transport Internationaux Routier' (French)
TN	International motoring symbol for Tunisia
TR	International motoring symbol for Turkey
Trailer Brake	An device to apply the brakes on the trailer only
Trailer swing	When the trailer collides with the tractor unit
Tranship	To transfer a load from one vehicle to another
Transit	To pass through a place or country
Twin Steer	Truck with two sets of wheels that both steer the vehicle
Ullage	The space above a liquid in a container. (For expansion)
Unaccompanied	When a trailer or vehicle is shipped without a driver
VEB	'Volvo Engine Brake' a retardation device (Volvo Trucks)
Vignette	The road tax payable in (B, L,S,NL,DK)
Wheel Choc	A device placed under wheels to stop vehicle from rolling
ZEV	Zero Emission Vehicle (Usually Electric)
Zoll	Identifies a Customs area or person (German)

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APPENDIX 9

REFLECTION ON CPC WORKSHOP

Take a few moments to reflect on the following questions and discuss your answers with at least one other colleague from the programme:

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What have I gained/learned from the workshop?

Your Response
For myself
In my work
In relation to my colleagues
What personal changes will I undertake/implement?

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What do I want to leave here?

(Anything that I used to do before I came to the programme that I am now going to discontinue thinking, saying or doing.)

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Your Response	

What do I want to take with me?

(Anything that I did not do, say or think before I came to the programme that I am now going to start doing, saying or thinking.)

Your Response	

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APPENDIX 10 Hard and Fast Facts.



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ROM DRIVING



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APPENDIX 11

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