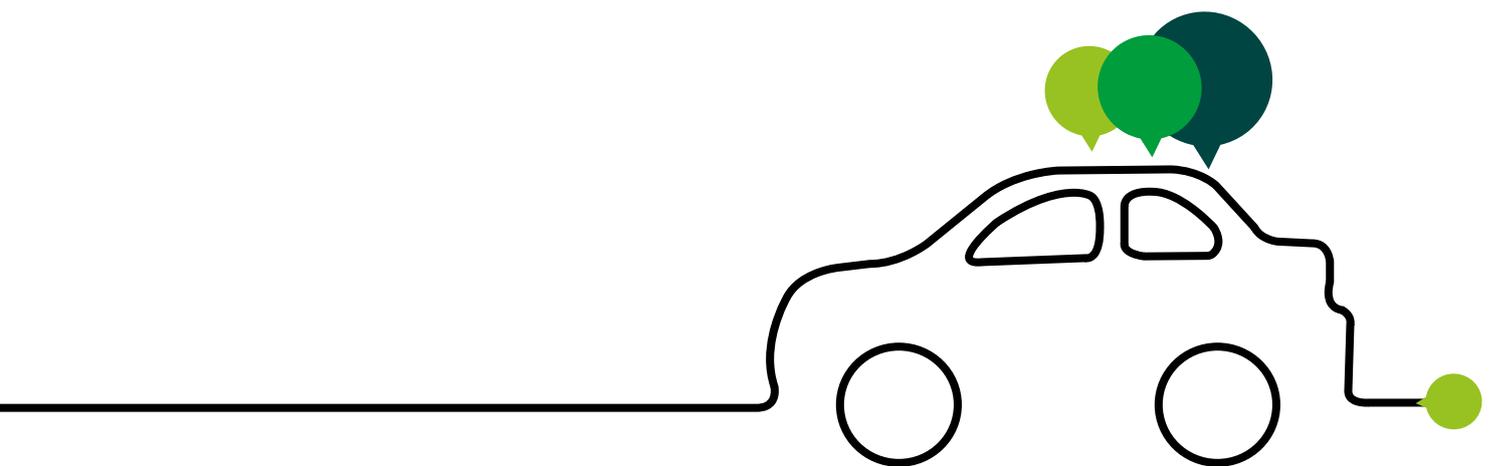




accidents don't have to happen

Driving for Work

Choosing Safer Vehicles



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Introduction

Driving is the most dangerous work activity that most people do. Over 100 people are killed or seriously injured every week in crashes involving someone who was driving or riding for work. This includes other road users, such as passengers, pedestrians and riders, as well as at-work drivers and riders themselves.

HSE 'Driving at Work' Guidelines state that "health and safety law applies to on-the-road work activities and the risks should be effectively managed within a health and safety system." Vehicles used on company business must be fit for purpose and in a safe condition and drivers must be capable and trained to use them safely.

The Provision and Use of Work Equipment Regulations also require employers to ensure that work equipment (including vehicles and their equipment) is suitable and safe, and employees are properly trained in its use.

Therefore, employers must conduct suitable risk assessments and put in place all 'reasonably practicable' measures to ensure that:

- Work related journeys are safe
- Staff are fit and are competent to drive safely
- Vehicles are fit for purpose and in a safe condition.

While steps to ensure safe driving behaviours are fundamentally important in achieving good road safety performance, a key component in any road safety management system is an effective vehicle selection policy that helps the organisation to choose safer vehicles.

The design and construction of vehicles has constantly improved over the years, with things like crumple zones, seat belts, ABS, airbags, head restraints, safer vehicle fronts and side impact protection. Today, vehicle technology is developing rapidly, with the increasing use of technologies designed to prevent collisions and/or reduce their severity.

This guide gives advice to fleet managers and buyers on choosing safer vehicles. It does not cover other issues, such as the options for funding fleet vehicles, or vehicle management systems.

Produce a Clear Policy

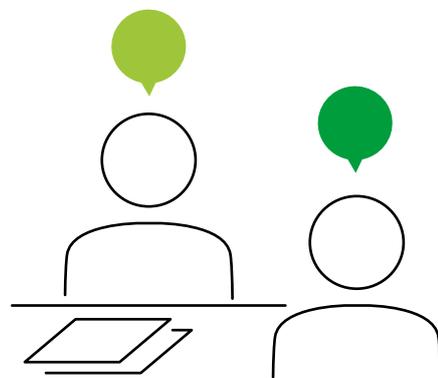
Produce a clear written policy on the type of vehicles that the organisation will use, procedures for their procurement, and appropriate staff training. Review the policy and procedures regularly.

This is a good time to review the organisation's vehicle use, length of journeys and overall mileage, for example, to assess whether they can be reduced. This is actually the best way of reducing the organisation's at-work road risk, its impact on the environment, and of reducing associated costs.

Include fleet management and performance indicators in the business plan, with clear links to staff development and training and to the organisation's corporate objectives. Review these performance indicators regularly to ensure they remain relevant and assist with fleet management decisions.

Running older vehicles for longer may seem cheaper but generally speaking, as vehicles become older, their maintenance costs increase and reliability decreases. Newer vehicles usually have

better safety features and improved fuel efficiency and environmental performance. Higher mileage vehicles on the other hand have lower residual value and a vehicle which exceeds its planned mileage may result in excess mileage charges being made by the leasing company. An example of good practice might be to replace cars after four years or 80,000 miles. Consider vehicle rotation to even out mileage between vehicles.



Consider Vehicle Use

When selecting vehicles, consider how they will be used and their safety features and performance. It's important not to make decisions based mainly on cost (e.g. the lowest purchase or lease cost) but very much on whether the vehicles are 'fit for purpose', otherwise this will increase risk and probably operational costs too. Vehicles must be suitable and safe for the employees who use them and for the type of trips they are expected to undertake.

Passengers and Loads

If a vehicle will normally only carry one or two people, and light loads (such as work bags), a saloon or hatchback car will be fine. The boot space must be large enough to safely store the goods or equipment that are carried without having to put some on the rear seats where they could injure occupants in a collision or heavy braking or cornering. If loads are heavy, boots must be easily accessible to avoid manual handling injuries.

If it is occasionally necessary to carry multiple passengers, or heavy, bulky or long loads (conference equipment, for example) hire a people carrier, minibus or van, for those occasions. Of course, the drivers of these larger vehicles must have a valid driving licence, be trained to drive them, and should always receive a suitable familiarisation or briefing session.

If large or heavy loads are carried regularly, a van should be used rather than cramming the loads into a car. For vans, consider the size, shape and weight of the typical loads to be carried and how easy the van can be loaded and unloaded (side doors, double rear doors). Consider whether storage racks are needed, and the implications of staff loading and unloading heavy items.

Type of Journeys

The type of journeys staff will make most often should also inform the choice of vehicle. For example, will they drive mainly on motorways and dual carriageways, in town centres, on rural roads or a combination of all these? If a vehicle will be used off-road, especially on rough terrain, a proper off-road vehicle should be specified.

Ergonomic features

Consider whether the vehicles have ergonomic features appropriate for the staff who will use them. How easily can they get in and out of the vehicle? Do they find the seats comfortable? (e.g., does it have lumbar support?). Can they see and operate all the vehicle controls easily? Is the instrumentation (especially the speedometer) clearly visible and does the driver have a good, all-round field of view from their seat?

Driver Distraction

Consider the potential for driver distraction, especially from hands-free mobile phone technology fitted in the vehicle. See [Driving for Work: Mobile Phones](#) for more information on driver distraction. Also consider the in-vehicle entertainment system, Satnav and other screen-based features and whether they have distraction potential. Are screen based systems difficult to operate?



Pool Vehicles

If vehicles are to be used by different staff, make sure they are fit for purpose for all the staff likely to use them, and the purposes for which they are used. A permit to drive system, in which only authorised drivers are allowed to use pool vehicles, is a good way of controlling their use. Keep records of who uses each pool vehicle every time it is used. As with hire vehicles, drivers should be given vehicle familiarisation training and/or briefing on pool vehicles.

Adapted vehicles

Specialist adaptations can be very helpful for people who have difficulty operating their car controls or getting in and out of the vehicle. A wide range of equipment is available including steering aids, hand controls, special cushions, swivel seats, hoists to lift occupants (and wheelchair if used), and driving accessories. Advice for drivers with disabilities and disabled passengers is available from [Motability](#) and [Motability Scheme Northern Ireland](#) in Northern Ireland.

Fuel Efficiency

Choosing vehicles with low emissions will reduce the organisation's environmental impact and operational costs. Vehicles with high CO₂ emissions are more expensive to tax and as fuel is a significant proportion of the running cost of a vehicle, selecting fuel efficient vehicles could save money for the company and the employee.

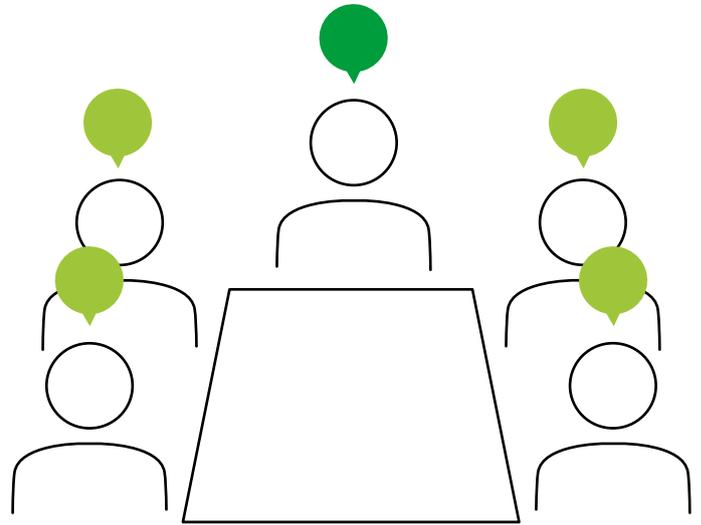
If you drive in London, be aware of the [London Low Emission Zone](#). Consider electric vehicles, especially if they are intended mainly for urban use.

Consult Widely

Develop the vehicle selection policy and procedures in consultation with the fleet manager, human resources and finance departments and department heads, as well as the organisation's insurer, broker and/or lease vehicle company.

Include drivers, and where appointed, their safety representatives, in the vehicle selection process. If possible, arrange for demonstration drives to ensure they have opportunities to provide feedback and views and input into the decisions made. This will help to make sure that the vehicles are fit-for-purpose, meet the organisation's business needs and personal dislikes (such as finding the driving seat uncomfortable) are resolved. It will also reduce the chance of opposition from staff about the vehicles allocated to them.

It's common to allow staff some flexibility in the choice of make, model, colour, optional features, CO² emissions and list price of their vehicle. However, parameters should be set in consultation with managers, drivers and key personnel to ensure that unsuitable vehicles are not chosen.



Train Your Drivers & Managers

Consider whether drivers have enough experience to drive the vehicles, and whether additional driver training is needed. Provide familiarisation training to make sure that they are familiar with the vehicle's controls and vehicle safety checks. Anything unusual about the vehicle (for example, keyless entry, foot operated parking brake) should be highlighted. Drivers should also know how to adjust the seat and head restraint for a safe and ergonomically sound driving position. If they carry loads, they need to know how to safely load and unload the vehicle, and how to secure loads.

Driver training should include the safe use of any technology provided with the vehicle. When new equipment is retro-fitted, the driver should also be trained in its use.

In particular, drivers should understand that they should not adjust or operate devices while they are actually driving. For example,

routes in the SatNav should be set before the journey starts. If it is necessary to input new information, the driver should only do so when stopped in a safe place. Devices mounted in a cradle should not be handled while driving.

Training should include the risk of relying too much on vehicle technology, and ensure that drivers understand they are responsible for remaining alert and making safe decisions. Ensure drivers read the vehicle handbook, and understand the features and technology in the vehicle.

Managers should receive similar training, as well as training on how to manage their drivers, including the importance of good, two-way communication and consultation.

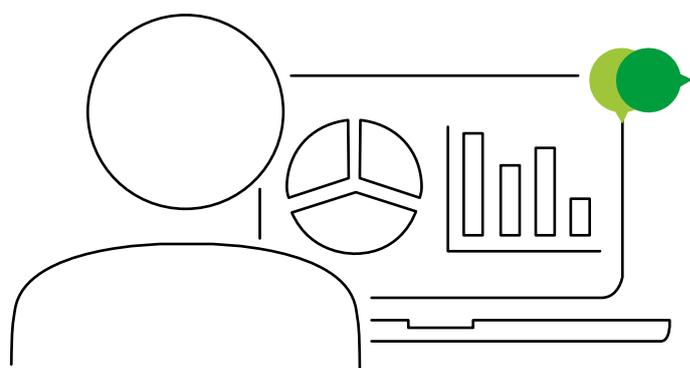
Expect Safe Driving

Ensure all staff, including managers, understand that the organisation expects everyone to drive within the law, safely and responsibly, that vehicle technology must only be used as designed, and that the organisation will provide appropriate help and training in the safe use of such technology.

Consider Telematics

Telematics are used by many employers to monitor and improve their staff's driving. It collects accurate information about a person's driving so it can be analysed in order to identify strengths and weaknesses, crash risk and to create personalised feedback. This can help employers to:

- Monitor and analyse the real driving behaviour of their staff who drive for work
- Provide tailored, personalised feedback to help drivers improve their driving
- Identify driver training and education needs of their drivers
- Identify other ways of reducing a driver's risk (e.g. changing journey schedules)
- Incentivise improved driving
- Improve accident investigations
- Reduce costs, with savings paying for the investment in the technology.



For more advice see 'Driving for Work: Telematics' and 'Using Telematics to Improve Driving for Work Safety: A Good Practice Guide' at rosipa.com/roadsafety/resources/employers

Maintain Vehicles

Ensure that vehicles are serviced and maintained according to the manufacturer's recommendations, and if applicable, pass an MOT test. Devices that require periodic software updates should be updated according to the manufacturer's recommendations.

Record and Investigate Accidents

Require staff involved in a work-related crash, including damage-only ones and significant near misses, to report it to their line manager so an investigation can be conducted. This will determine whether the vehicle, or any in-vehicle technology, contributed to it and what (if any) action is necessary to prevent repeat occurrences. Keep the organisation's insurers informed.

See 'Driving for Work: Incident Reporting and Investigation' for more details.

Require Drivers to Notify Driving Offences

Require drivers who have been cautioned, summonsed or convicted for driving offences to inform their line manager so that a discussion can take place to determine whether, among other factors, the use or mis-use of any in-vehicle technology, contributed to the offence, and what (if any) action is necessary to prevent repeat occurrences.

Monitor and Review

Managers should discuss at-work driving, including the use of in-vehicle equipment, with their drivers during staff appraisals and team meetings. Feedback from drivers about equipment should be noted, and used to help employers to make future decisions about the use of such equipment.

Consider Performance

Euro NCAP

Euro NCAP conducts independent tests on cars that far exceed the safety requirements set by law. The tests assess adult and child occupant protection in front and side impacts, pedestrian protection, and Safety Assist. It gives higher ratings to cars with active safety systems, such as Autonomous Emergency Braking, Speed Assistance and Lane Support. Vehicle technology is developing rapidly, with manufacturers often giving different names for similar types of technology. Consider the following safety features when specifying vehicles.



Braking

Braking technology is developing rapidly, and it is estimated that autonomous braking systems have the potential to save 1,100 lives and prevent more than 120,000 injuries over the next ten years.

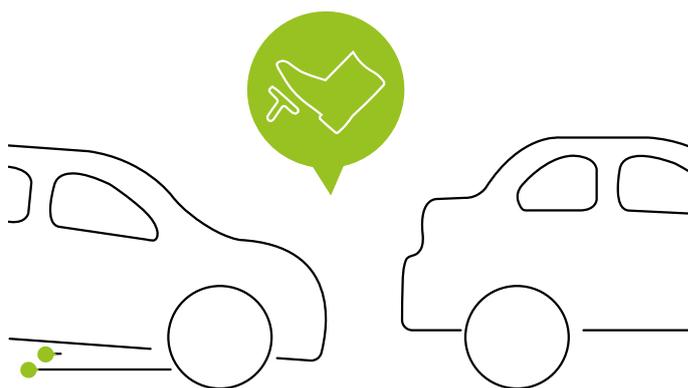
Autonomous Emergency Braking Systems (AEB)

Autonomous Emergency Braking Systems monitor the environment around the vehicle, and if it detects a likely collision, applies the brakes in an emergency stop. Some systems intervene earlier by warning the driver or braking gently to reduce the risk of a potential collision.

However, they are less effective at detecting and responding to pedestrians or cyclists than Pedestrian AEB systems.

Pedestrian Autonomous Emergency Braking

Pedestrian AEB systems detect and prevent collisions with pedestrians as well as vehicles. They are increasingly fitted as standard in new cars, and Euro NCAP tests include Pedestrian AEB as part of its five star rating.



Reverse Autonomous Emergency Braking

Reverse AEB detects potential obstacles in the path of a reversing vehicle and automatically applies the brakes to slow or stop, preventing a crash. Parking damage accounts for up to 25% of insurance claims in the UK and 75% of these are for damage caused while reversing.

Electronic Stability Control (ESC)

Electronic Stability Control (ESC) is mandatory on all new cars. It monitors the vehicle's direction and the speed of each individual wheel. If it detects that a wheel is losing grip and the vehicle's direction is changing, it reduces the engine power and brakes individual wheels to prevent loss of control and keeps the vehicle heading in the intended direction. ESC significantly reduces the risk of crashing.

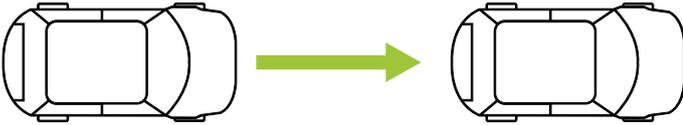
Traction Control

When a vehicle accelerates on a slippery surface like ice or snow, the wheels may slip and spin without gaining grip. Traction control monitors the rotation of the wheels, and if necessary applies and releases the brakes in rapid succession to reduce wheel spin and help the driver to move off.

Speed

Adaptive Cruise Control (ACC)

Adaptive Cruise Control maintains vehicle speed at the level pre-set by the driver, unless the driver brakes. It is designed for high speed roads rather than town and city driving. It reduces the vehicle's speed if the vehicle ahead slows down or the distance to it reduces.



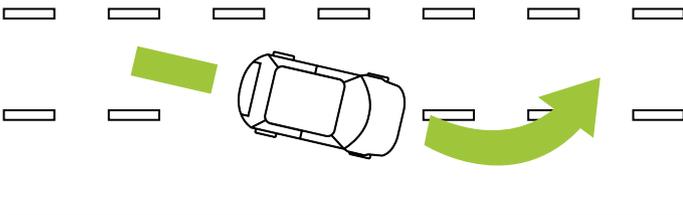
Speed Assist Technology

Euro NCAP promotes the use of voluntary Speed Assist Systems to help drivers to control their speed. These systems give the driver a visual and/or audible warning if they exceed a pre-set speed. Some systems also show the speed limit of the road they are using. The most advanced systems can prevent the vehicle speed exceeding a pre-set speed limit. Speed Assist systems are often, but not always, incorporated into SatNavs, but some vehicles have built-in technology.

Road Position

Lane Assist

Euro NCAP rewards manufacturers that fit Lane Departure Warning or Lane Keeping Support systems. These systems warn the driver if they are unintentionally straying out of their lane or if they change lane without indicating. They monitor the position of the vehicle in its lane and warn if the car unintentionally wanders from the path. Lane Keeping Support also helps the driver by gently steering the car back into the lane. They rely on clear lane markings so their effectiveness can be reduced in poor weather. If the driver uses their indicator, the system does not issue an alert.



Blind Spot Monitoring

The systems monitor the area behind, and adjacent to, the car that the mirrors do not cover (blind spots). If it detects movement, it warns the driver so they do not change lanes into the path of a vehicle they have not seen.

Reversing and Parking Aids

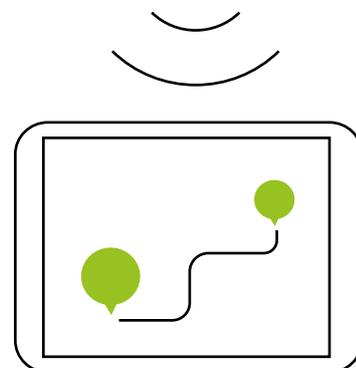
Reversing and Parking Aids alert the driver to the proximity of objects or people behind the car. Reversing cameras can help drivers to see behind when reversing.

Satellite Navigation (SatNav)

SatNavs help drivers to make earlier and better decisions, and to avoid hesitation and sudden late manoeuvres. Many require annual (or more frequent) updates, without which the information they contain becomes out-of-date. They are generally designed for cars and may not have information such as weight and height limits on roads and bridges that are relevant to large vehicles.

If portable SatNavs are provided, they must not be fitted where they might reduce a driver's view, be hit by an airbag if one went off or cause injury in a collision. It should also be easy for the driver to see.

For further advice see '[Driving for Work: Safer Journey Planner](#)'.



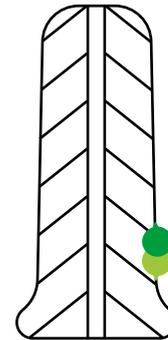
Tyres



Tyres that are in poor condition increase a vehicle's stopping distance and the chances of a 'blow out', all of which increase the risk of crashing. Tyres need to comply with the manufacturer's specifications and recommendations for different conditions (e.g. mud and snow). Make sure they are in good condition, free from defect and are inflated to the correct pressure. Do not cut corners when fitting replacement tyres.

Tyre Pressure Monitoring Systems (TPMS) monitor the pressure of each tyre and warn the driver if one or more is incorrectly inflated. Different makes vary in their accuracy, and how they alert the driver. Therefore, it is important that drivers know what levels of deflation trigger the TPMS warning, how it will warn them, and

what they should do. Drivers should understand that they still need to manually check tyre pressures, tread depths and tyre condition regularly.



Lighting



Automated lights

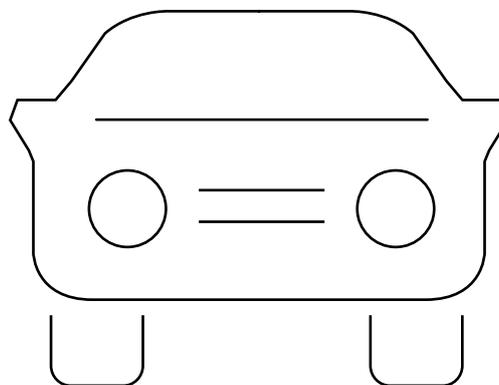
Some vehicles now have automated lights that switch on headlights and rear lights in the dark or low light levels (e.g. in a tunnel or multi-storey car park). The system only works if the light switch is set in the automatic position. However, they may not work in poor visibility, such as in fog, if light levels are high.

Daylight Running Lights (DRL)

New cars and vans are now fitted with dedicated daytime running lights (DRL). Some countries (not the UK) require drivers to use specific daytime running lights, or switch on their headlights during the day. Daytime running lights are front lights only; they do not switch on rear lights.

Adaptive Front Lighting Systems (AFLS)

Adaptive Front Lighting Systems direct the headlight beams to the direction of travel, based on the angle of the steering wheel. Advanced Systems turn the headlights to boost visibility through bends; some also adjust the light pattern for different road speeds and visibility (e.g. narrower beam on motorways). Similar technologies are Cornering Light Assist that illuminates a wider angle when turning corners (especially at junctions), and Auto High Beam that automatically switches high beam lights on and off to improve vision, but avoid dazzling oncoming drivers.



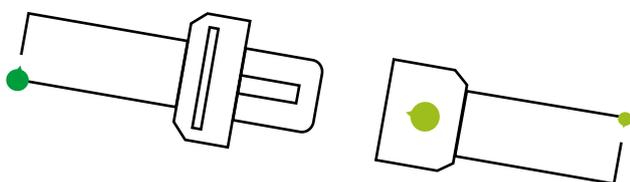
Occupant Protection

Seat Belts

New vehicles will have seat belts fitted in every seat, of course. They are extremely effective at reducing the risk of death or injury in a collision. However, they only work if they are worn.

Seat Belt Reminder systems

Seat belt reminder systems can significantly increase seat belt wearing rates. EuroNCAP awards points for vehicles that are fitted with a seat belt reminder system. They monitor whether the seat belt is fastened in an occupied seat, and if not, alert the occupant that the seatbelt should be worn. They are most common for the driver's seat, but many also cover the passenger seats.



Head Restraints

Head restraints are an important, but often undervalued, part of a vehicle's occupant protection system. When correctly positioned, head restraints reduce the likelihood of whiplash. However, their effectiveness is reduced if they are not correctly positioned:

- The top of the head restraint should be as high as the top of the head
- The head restraint should be as close to the rear of the head as possible.

Active Head Restraints

In some vehicles, the seat and head restraint changes position to reduce the effect of a collision on the neck, which can reduce the effects of whiplash significantly.



Child Car Seats

If child passengers are carried in the course of work, they must be carried in appropriate child car seats. In this case, vehicles with Isofix points should be used as this will make it easier to ensure that the child seats are fitted correctly. See childcarseats.org.uk for more information.

Airbags

New cars usually come with multiple airbags, including front driver and passenger airbags, and side airbags in the rear (and sometimes the front). Airbags are designed to work with the vehicle's seat belts and seats to absorb the energy of an impact, and protect the occupants. They are not a substitute for seat belts and do not provide adequate protection if the occupant is not also wearing a seat belt.

Drivers should consult their vehicle handbook for specific information on their vehicle's airbags.

(Pre-) Crash Systems

This technology adapts a vehicle's occupant protection system to occupants of different sizes and sitting positions. Typically, it removes slack from seatbelts, adjusts seating positions to optimise airbag performance and closes windows to prevent ejection. Some do this in the preceding micro-seconds of a collision; others react during the impact.

eCall

eCall automatically makes a 112 emergency call to the nearest emergency centre when it detects a severe impact, and sends the exact location of the crash and other data. It alerts the emergency services even if the occupants are not able to call for help, or do not know where they are. eCall can significantly reduce emergency services' response time, and it has been estimated that this will save hundreds of lives in the EU every year. It is due to become mandatory in new types of passenger cars and light commercial vehicles in early 2018.

Further Advice



Driving at Work (HSE Guide INDG 382)

Work Related Road Safety (HSE)

Occupational Road Safety Alliance (ORSA)

Scottish Occupational Road Safety Alliance (SCORSA)

RoSPA Driving for Work Guides

Driving for Work DVD

RoSPA Vehicle Safety

RoSPA Fleet Safety

Driving for Better Business

Euro NCAP

Thatcham Research Centre

Highways England

Road Safety GB

Highway Code

Think Road Safety

Department for Transport

Road Safety Scotland

Road Safety Wales

Driver and Vehicle Standards Agency

Top Ten Tips for Staying Within the Limit

Vehicle Selection Policy



As part of our health and safety policy, we are committed to reducing the risks which our staff face and create when on the road as part of their work. We ask all our staff to play their part. When driving for work, staff must always drive within road traffic laws, safely and responsibly.

Our vehicle selection policy and procedure is designed to ensure that vehicles used on company business are fit for purpose and in a safe condition and our drivers are capable and trained to use them safely.

All work-related road accidents, incidents and near misses (including damage-only ones and ones involving privately owned vehicles when they are used for work) must be reported to a line manager or other nominated manager.

Failure to comply with our vehicle policy and procedures will be regarded as a disciplinary matter, in accordance with our HR and disciplinary policies. Persistent failure to comply with the policy and procedure, or a single serious instance, will be regarded as a serious disciplinary matter.

Senior managers must ensure:

- They lead by example
- They understand and follow the organisation's policy and procedures on choosing safer vehicles
- Staff and managers understand and follow the organisation's policy and procedures
- The organisation's vehicles are fit for purpose
- Staff receive training about their vehicles, the technology they contain, and how to drive safely.

Line managers must ensure:

- They lead by personal example
- They understand and follow the organisation's policy and procedures on choosing safer vehicles
- Their staff's vehicles are fit for purpose
- Their staff understand and follow the policy and procedures
- Their staff receive appropriate driver training, including the safe use of vehicle technology
- Visual inspections of nomadic technology are conducted to ensure that it is safely located and can be safely used by the driver
- Their staff are confident that they can report and discuss with an appropriate person any driving issues they might have without fear of being treated unfairly
- Work related road safety is included in team meetings and staff appraisals and periodic checks are conducted to ensure the Policy is being followed
- Their staff follow monitoring, reporting and investigation procedures to identify and resolve any vehicle related problems

Staff who drive for work must ensure:

- They understand and follow the organisation's policy and procedures on choosing safer vehicles
- They report problems or defects with their vehicle
- They report crashes, incidents, fixed penalties, summons and convictions for any offence, including vehicle defects, to their line manager
- Co-operate with monitoring, reporting and investigation procedures.



accidents don't have to happen