





Driving and Occupational Health

An essential guide

August 2024



Introduction

This guide, commissioned by National Highways, aims to offer advice to both employers and occupational health professionals on supporting the health of at work driving populations and reducing road traffic incidents. The scope of this guide focuses on any worker who drives on public highways, rather than a specific industry or type of licence holder. This guide does not aim to offer guidance on managing occupational road risk in its entirety; however, HSE driving for work¹ offers valuable advice and resources.

A 2020 study found that nearly a third of all road fatalities involved someone driving for work. The study also concluded that more deaths occur from work-related road travel than from incidents in the workplace². Statistically, five people will die on our roads each day, and over half of all registered vehicles in the UK are driven for work in some capacity³.

For this guide, 'at work drivers' refers to individuals who drive on public roads for the purpose of their occupation. It is important to remember that many job roles likely fall into this description, not only those where individuals are employed specifically to drive. At work drivers include grey fleet/company car drivers and van and minibus drivers, who fall under the scope of DVLA Group 1 licensing. LGV and HGV drivers who require a DVLA Group 2 licence are also included, and they are subject to more stringent licensing requirements.

This guidance aims to help organisations, who are responsible for the health and safety and well-being of their employees and the public, and occupational health professionals, who have a responsibility to support their clients and safeguard the public.



The role of Occupational Health

Occupational health professionals are uniquely competent in providing both health services for employees and professional support to management. Good employee health and well-being contributes to business performance, enhances employee engagement, and reduces avoidable business costs due to sickness absence and lost productivity. Work-related ill health and chronic disease are a significant burden for individuals, employers and the national economy. Therefore, occupational health professionals should engage with employers of at work drivers, to provide proactive support and monitoring and offer targeted interventions to improve mental and physical health outcomes of at work driver populations.

Occupational health professionals are experts in assessing fitness for work and should offer medical assessment and screening, to reduce risk of incidents and improve health outcomes for at work drivers.

To support at work drivers, occupational health professionals should consider focusing on educating employees about their duty to monitor and manage any physical or mental health conditions they may have, to ensure they are safe and fit to drive. Focus for at work drivers should be on the danger of fatigue and excessive sleepiness.

Occupational health professionals will be familiar with carrying out fitness for work medicals and covering safety-critical work tasks. When assessing at work drivers, in addition to screening for conditions which may result in sudden disabling events (such as diabetes), it may be useful to consider assessing the following medical conditions:

Obstructive sleep apnoea (OSA)

Excessive daytime sleepiness is a common symptom of obstructive sleep apnoea (OSA). Evidence shows that drivers diagnosed with OSA are more than three times more likely to be involved in a crash than drivers without OSA. The risk of crash significantly increases when drivers also report a diagnosis of depression or have not completed fatigue management training¹.

Through a programme of fitness to work assessments, it is possible to proactively measure and review the risk of OSA within an at work driver population. Evidence-based screening tools, such as STOP-Bang² and/or the Epworth Sleepiness Scale (ESS)³, should be used.

Where a driver has been identified as at risk of OSA, guidance from the National Institute for Health and Care Excellence states that at work drivers should have their GP arrange an 'urgent referral', clearly requesting the Sleep Clinic provide fast-track treatment within four weeks⁴.

Musculoskeletal health

A systematic review found that musculoskeletal pain is highly prevalent in at work drivers, with lower back pain being the most common⁵.

Loughborough University conducted a targeted six-month health programme – Structured Health Intervention For Truckers (SHIFT) – which showed a significant increase in physical activity had a meaningful impact on reducing the risk of long-term disease in a professional driver population⁶.

Physical health initiatives should focus on increasing physical activity amongst at work drivers. Specialist occupational physiotherapy services, including musculoskeletal education and prehabilitation, aim to reduce injury and improve musculoskeletal health. Ergonomic vehicle assessments should also be conducted so vehicles can be adjusted to support drivers.



The role of Occupational Health

Mental health

Occupational health professionals should focus on interventions to support and improve the mental health of at work drivers, who deal with long periods of isolation and lack of social connection.

Studies have found that the longer an individual spends driving their work vehicle, the higher their reported level of depressive symptoms. Similarly, the number of hours spent driving and the number of accidents during an individual's career also correlate with increased depressive symptomology.

Research has also shown that the odds of being involved in a collision in the last 12 months are significantly related to higher levels of psychological distress⁸.

Driver health assessments could use a validated screening tool, such as PHQ-9 or GAD-7, if relevant medical history or symptoms have been disclosed.

Eyesight and cataracts

By law, all licensed drivers must meet the specific eyesight requirement set out in the DVLA medical standards. Occupational health professionals should ensure eyesight is tested as part of any fitness to work assessment for at work drivers, with a clear escalation process to appropriately qualified clinicians if any defects are identified.

Impairment from medication, alcohol and substance abuse

Whilst certain prescribed medications are associated with measures of impaired driving performance, it is difficult to determine if such associations are a result of medication use or the medical diagnosis itself. Considering the prevalence of chronic conditions in the UK, occupational health professionals should discuss with drivers the potential effects of any medication declared over the counter and of any prescription medication. Drivers should also be encouraged to discuss side effects with their prescriber and/or pharmacist and explore alternative medications where fitness to drive might be impaired.

The link between alcohol consumption and impaired driving led to legislation, with enforcement of legal limits based on blood alcohol concentration levels.

Research has identified that driving with a hangover on a typical commute to work results in significant driving impairment, even though participants overall were below the legal alcohol limit for driving. The level of impairment seen was comparable to driving while intoxicated, which indicates the danger of driving whilst hungover, even when breath alcohol is at zero¹⁰.

A 2023 study by Drinkaware found that 39% of respondents reported using alcohol as a coping mechanism, to help them unwind and deal with negative mood¹¹. Individuals also use alcohol for its sleep-promoting effects; however, alcohol is known to disrupt sleep and increases breathing-related sleep events, especially for people with pre-existing problems¹².

Occupational health professionals should consider using an approved alcohol screening tool, such as the Alcohol Use Disorders Identification Test (AUDIT)¹³ and educate at work drivers on the risks associated with alcohol use and driving.

Occupational health professionals can also support organisations to develop policies and support frameworks which will enable employers to demonstrate confidence that their at work drivers are not impaired by medication, alcohol or illicit substances. This may include developing a drug and alcohol testing regime and support services where dependency/addiction has been disclosed.



Chronic conditions and modifiable risk factors

Health promotion activities should focus on modifiable risk factors, such as obesity and lack of physical activity, to reduce the risk of developing cardiovascular and other chronic physical health conditions. Consideration could be given to using a recognised screening tool, such as QRISK3¹⁴, to quantify the risk of a future cardiovascular event.

Organisations should support positive health behaviours in their at work driver populations. Reviewing rest breaks and route plans and making sure there are appropriate facilities on routes will help drivers stay hydrated, eat well and take effective mobility breaks. Organisations should also ensure they have processes for putting in place workplace adjustments for drivers with health issues.

Facilitating a psychologically safe and fair culture will create opportunities for employees to speak up about any health concerns, and for organisations to demonstrate confidence in the health of their at work drivers.

Consider shift planning to help support fatigue management

Fatigue is a decline in mental and/or physical performance which results from prolonged exertion, sleep loss and/or disruption of the internal clock. It is also related to workload, and workers are more easily fatigued if their work is monotonous¹.

A study has shown that after two hours of driving, subjective fatigue levels and certain driving performance measures begin to deteriorate. After four hours, driving performance indicators reduce significantly. A 15-minute rest allows drivers to recover from two hours of driving, and a 30-minute break helps those who have been driving for three to four hours₂.

Fatigue is implicated in 20% of incidents on major roads³. Short sleep durations and less sleep between 1 and 5 a.m. have been linked to a higher rate of safety-critical driving events⁴.

Organisations should offer night worker assessments where relevant. Seek support from Occupational Health on how shift work and long hours may impact on your at work drivers with long-term health conditions and any potential associated impairment and their ability to drive safely. Organisations can also offer overnight stays, where practicable, to support adequate sleep durations.

Mobility and physical activity

As well as supporting with fatigue management, regular breaks from driving will benefit drivers' musculoskeletal health. Evidence has shown that taking a 10-minute walk during a break from driving significantly reduced discomfort – and for a further hour after returning to driving⁵.

A multicomponent Structured Health Intervention For Truckers (SHIFT) programme, which included health coaching and provision of a Fitbit®, was trialled amongst drivers at a logistics company in the UK. Drivers were encouraged to set goals to increase their time spent walking, alongside completing a 'cab workout' during breaks where they were not able to leave their vehicles. The programme resulted in a notable increase of physical activity – maintained at six months post study – which is likely to have a positive impact on the longer-term health of these at work drivers⁶.



Dehydration and the impact on concentration

According to the Royal Society for Public Health, over half (56%) of the UK public restrict their fluid intake due to concern over lack of toilet facilities. Deliberate dehydration can seriously affect health and exacerbate existing medical problems⁷. It is reasonable to assume that dehydration is an issue for at work drivers in the UK, especially those who do not travel on motorways and therefore do not have easy access to service stations. A study by Mercedes-Benz Vans found that 70% of at work drivers reported that work pressures severely impacted on staying hydrated and eating a healthy diet. One in ten said that they 'wee' on the move, to avoid having to stop and miss challenging targets⁸.

Dehydration is a reliable predictor of impaired cognitive status⁹, and mild dehydration has been found to cause a significant increase in minor driving errors during prolonged, monotonous driving tasks¹⁰.

Organisations should consult with their professional drivers to make sure they feel able to manage their fluid intake and to address any concerns and barriers, such as lack of toilet facilities and time constraints.

Diabetes

Many of the road traffic accidents which can be contributed to diabetes are because drivers continue driving, even though they have the warning symptoms of low blood sugar, a known complication of diabetes¹¹. At work drivers with diabetes should be able to stop driving, when safe to do so, and take a break to manage their blood sugar levels. Organisations should be aware that it can take up to 45 minutes for the brain to recover fully from an episode of low blood sugar. Contingencies should be in place to support the driver to return to driving duties once they have fully recovered.

Ensure at work drivers have a mechanism for reporting any issues (medical or otherwise) which mean they need to stop driving and take a break. It is critical to engage with an occupational health service to access specialist advice on how to support professional drivers with diabetes and what safety adjustments may be needed.

Supporting an ageing workforce

Twenty per cent of UK driving licence holders are aged between 50 and the current state retirement age¹². One third of all UK workers are now over 50¹³. With one in three middle-aged British adults suffering from at least two chronic health conditions¹⁴, organisations should consider how they are supporting professional drivers with long-term health conditions.

Completing a personalised risk assessment will identify workplace support and adjustments that may help at work drivers manage their conditions. Key risk areas to focus on might include the impact of fatigue and medication on work tasks and the psychological demands of the work.



Mental health

According to the Health and Safety Executive (HSE), around four in ten cases of work-related ill health in the transportation and storage sector are due to stress, depression or anxiety¹⁵. Initiatives have been developed to raise awareness of mental health issues amongst lorry and van drivers and to make it easy for them to access help:

BeAMate

BeAMate, supported by the Road Haulage Association (RHA) and the HSE's Working Minds campaign, encourages drivers to use an anonymous, confidential text service if they need support with anxiety, stress, loneliness or depression. The service is staffed 24/7, and drivers simply need to text BeAMate to 85258 to get the conversation started.



#Cabversation



Launched by service station operator Moto in partnership with mental health charities Mind and the Scottish Association for Mental Health, #Cabversation encourages HGV drivers to chat to other drivers when they stop for a break at a service station. The #Cabversation hub is full of tips, tools and resources for supporting the mental health of HGV drivers. Moto has also installed 60 talking benches at their service stations across the UK as a physical space for HGV drivers to start a 'cabversation'.

Driving better mental health for HGV drivers - Mental Health at Work

National Highways and Driving for Better Business have teamed up with CALM to help drivers get through tough times. The CALM Driver campaign enables employers to let their drivers know there is someone there, every day, to help if they are struggling. To get support, drivers can visit www.drivingforbetterbusiness.com/CALMdriver.

National Highways and Driving for Better Business have also created and funded 20,000 vehicle packs containing a flyer and discreet stickers to go inside commercial vehicles so drivers know where to turn.





Organisations need to recognise that supporting drivers' mental health is not just the right thing to do but also makes good business sense, helping keep operations running smoothly and drivers safe and healthy on the road. Creating a workplace culture where talking about mental health is seen as a positive for the business and for the staff is key to getting drivers to open up without fear.

Accessing workplace support

Certain medical issues cause barriers to returning to driving. The DVLA will sometimes require further evidence/medical investigations to renew a driving licence. The National Health Service has limited capacity and resources to complete the required assessments, which can result in lengthy wait times and extended sickness absence – and have a negative impact on both organisations and employees.

To expedite the process and enable drivers to return to work, organisations could explore the potential benefits of facilitating access to private medical treatment and support. This would reduce sickness absence and improve engagement and attrition.

Due to long working hours, shift work and long-distance travel, at work drivers are also likely to have difficulty accessing health and well-being support. Initiatives such as a 24/7 employee assistance programme and a virtual GP service may help drivers access timely support, which will minimise negative health outcomes and sickness absence.



Case study

After looking at incidence statistics amongst their mobile technician population, a water company found a higher-than-average incidence rate of musculoskeletal injuries and sickness absence. The role of a mobile technician involves long periods of driving interspersed with intensive periods of manual handling activities. The water company's internal occupational health team developed a physical resilience programme, to enable their technicians to recognise the importance of education, maintaining their musculoskeletal health and recognising the early signs of musculoskeletal symptoms so they can self-treat.

Physical resilience programme

- Developed with someone who rehabilitated from injury by doing Pilates.
- Worked with a specialist physiotherapist group to develop a targeted programme.
- Interactive session focused on how to prevent and manage injury, myth-busting guidance, and how to self-treat common musculoskeletal issues (see picture below)

The session

The aim of the interactive session was for attendees to gain an understanding of musculoskeletal conditions, how to manage these conditions and how to reduce the risk of musculoskeletal pain. This type of training is used globally in elite sports injury prevention programmes, to help athletes manage their injuries. The water company combined this programme with their role risk profiles, to provide bespoke education packages for their teams. Senior management buy-in was crucial. Operational managers involved in the training sent local invites, which was key to the uptake. Participants sent their feedback via SurveyMonkey.

- Half-day seminar-based session led by a specialist physiotherapist.
- Combination of discussion and practical activities designed to help manage any current musculoskeletal pain.
- Education on how to reduce risk of injury both inside and outside of work.
- Opportunity to discuss any personal pain one on one with the physiotherapist.

Results and feedback

Over the course of a year, the water company's mobile technician population achieved an **80% reduction** in sickness absence due to musculoskeletal issues. They also achieved a **70% reduction** in long-term injuries due to musculoskeletal injuries.

How useful did you find the information in the training? All of the information was useful Most of the information was useful Some of the information was useful

Participants in the interactive session



"Thanks for getting me on the physical resilience session yesterday. In a nutshell, I thought the training was absolutely brilliant. I would argue it is probably the best training day I have had whilst being here. I am a little biased as I am very interested in the subject outside of work, but despite this it was very informative, delivered brilliantly by the physio, and, in my opinion, very relevant. I observed the 12 technicians in the session, and in the first 30 minutes and before the start, it was all typically negative comments: "This is a waste of time", "We're busy," etc. However, by the end, they were very engaged, and it was evident that we had all learned something. Being able to recognise injury, and have some idea of self-help, is such a great tool for us all to have. In trying to be fit and able for work, this knowledge will help. I want to roll this out to all my team."

"I didn't know half of that."

"I will use that in daily life, not just at work."

"One of the best courses I have attended for a long time."



What next...?

A common theme throughout this guide is the importance of collaboration between Occupational Health and organisations. Proactive support will result in a positive impact on the health and well-being of at work drivers and reduce the risk of road traffic incidents related to health. Statistically, five people will die on our roads each day, and over half of all registered vehicles in the UK are driven for work in some capacity. If you were to look at any busy stretch of motorway during a normal working day, this would be way more. If vehicles are driven for work, organisations can influence choices and behaviours in the same way as any other area of operations.

For organisations that do not currently have occupational health provision in place, the Society of Occupational Medicine (SOM) offer a free, open-to-all directory for occupational health (OH) companies. The directory includes details of the OH companies' quality certifications, services offered and direct contact details. The SOM also offer guidance on steps to take when commissioning an occupational health service.

Driving for Better Business offer a '<u>Driving for Work Policy Builder</u>' to help you have a 'good practice' Driving for Work policy. There is also a free <u>fleet confidence footprint</u> tool, which explores how confident an organisation is regarding six basic statements about driver safety, including fitness to drive.

The Royal Society for the Prevention of Accidents (RoSPA) have free information and resources to support both organisations and at work drivers, including a section on <u>driver</u> <u>health</u>.

Through proactive action by both Occupational Health and organisations, significant improvements can be made to the health of at work drivers, which will not only benefit individuals and businesses but save lives.



References

Introduction

- **1.** Driving and riding safely for work Overview HSE
- 2. https://www.ucl.ac.uk/civil-environmental-geomatic-engineering/sites/civil-environmental-geomatic-engineering/files/final_report_ward_christie_walton_dec_2020.pdf
- **3.** Driving Change. It is personal. Driving for Better Business

Role of Occupational Health

- 1. Meuleners, L., Fraser, M.L., Govorko, M.H. & Stevenson, M.R. (2015). Obstructive Sleep Apnea, Health-Related Factors, and Long-Distance Heavy Vehicle Crashes in Western Australia: A Case Control Study. Journal of Clinical Sleep Medicine, 11(4). Published Online: 15 April, 2015. https://doi.org/10.5664/jcsm.4594
- **2.** STOPBang Questionnaire (britishsnoring.co.uk)
- **3.** The Epworth Sleepiness Scale (nasemso.org)
- 4. Scenario: Management | Management | Obstructive sleep apnoea syndrome | CKS | NICE
- 5. Joseph, L., Standen, M., Paungmali, A., Kuisma, R., Sitilertpisan, P. & Pirunsan, U. (2020). Prevalence of musculoskeletal pain among professional drivers: A systematic review. Journal of Occupational Health, 62(1). e12150. https://doi.org/10.1002/1348-9585.12150
- 6. Clemes, S.A., Varela-Mato, V., Bodicoat, D.H. et al. (2022). The effectiveness of the Structured Health Intervention for Truckers (SHIFT): a cluster randomised controlled trial (RCT). BMC Med, 20(195). https://doi.org/10.1186/s12916-022-02372-7
- 7. Chalmers, T., Maharaj, S. & Lal. S. (2021). Associations Between Workplace Factors and Depression and Anxiety in Australian Heavy Vehicle Truck Drivers. Annals of Work Exposures and Health, 65(5), 581–590. https://doi.org/10.1093/annweh/wxaa134
- **8.** Mann, R.E., Asbridge, M., Stoduto, G., Smart, R.G., Goldbloom, D.S., Vingilis, E.R. & Wickens, C.M. (2010). Psychological distress and collision involvement among adult drivers. Stress and Health, 26(2), 127–134.
- 9. Hetland, A. & Carr, D.B. (2014). Medications and Impaired Driving. Annals of Pharmacotherapy, 48(4), 494–506. doi:10.1177/1060028014520882
- 10. Alford, C., Broom, C., Carver, H., Johnson, S.J., Lands, S., Reece, R. & Verster, J.C. (2020). The Impact of Alcohol Hangover on Simulated Driving Performance during a 'Commute to Work'—Zero and Residual Alcohol Effects Compared. J. Clin. Med. 9(5), 1435. https://doi.org/10.3390/jcm9051435
- **11.** drinkaware_monitor_2023_research_report.pdf
- **12.** He, S., Hasler, B.P. & Chakravorty, S. (2019). Alcohol and sleep-related problems. Curr Opin Psychol. 30, 117–122. doi: 10.1016/j.copsyc.2019.03.007. Epub 2019 Apr 19. PMID: 31128400; PMCID: PMC6801009.
- 13. Alcohol use disorders identification test (AUDIT) (publishing.service.gov.uk)
- **14.** QRISK3



References

Role of Organisation

- **1.** Road safety factsheet: Driver fatigue and road collisions. rospa.com
- 2. GB Driving Licence Data. data.gov.uk
- **3.** Guang, X.C., Fang, Y., Guo, F. & Hanowski, R.J. (2016). The influence of daily sleep patterns of commercial truck drivers on driving performance. Accident Analysis & Prevention, 91, 55–63. https://doi.org/10.1016/j.aap.2016.02.027
- **4.** Wang, L. & Pei, Y. (2014). The impact of continuous driving time and rest time on commercial drivers' driving performance and recovery. Journal of Safety Research, 50, 11–15. https://doi.org/10.1016/j.jsr.2014.01.003
- 5. Sammonds, G.M., Mansfield, N.J. & Fray, M. (2017). Improving long term driving comfort by taking breaks How break activity affects effectiveness. Applied Ergonomics, 65, 81–89. https://doi.org/10.1016/j.apergo.2017.05.008
- 6. Clemes, S.A., Varela-Mato, V., Bodicoat, D.H. et al. (2022). The effectiveness of the Structured Health Intervention For Truckers (SHIFT): a cluster randomised controlled trial (RCT). BMC Med, 20, 195. https://doi.org/10.1186/s12916-022-02372-7
- **7.** https://www.rsph.org.uk/static/uploaded/459f4802-ae43-40b8-b5a006f6ead373e6.pdf
- **8.** Wilson, M.M. & Morley, J. (2003). Impaired cognitive function and mental performance in mild dehydration. Eur J Clin Nutr, 57, S24–S29. https://doi.org/10.1038/sj.ejcn.1601898
- **9.** media.mbvans.co.uk/en-gb/releases/1019
- **10.** Watson, P., Whale, A., Mears, S.A., Reyner, L.A. & Maughan, R.J. (2015). Mild hypohydration increases the frequency of driver errors during a prolonged, monotonous driving task. Physiology & Behavior, 147, 313–318. https://doi.org/10.1016/j.physbeh.2015.04.028
- **11.** Driver & Vehicle Licensing Agency. A guide to insulin treated diabetes and driving (INF294). inf294-a-guide-to-insulin-treated-diabetes-and-driving.pdf
- **12.** GB Driving Licence Data. data.gov.uk
- 13. Work | State of Ageing in 2020 | Centre for Ageing Better. ageing-better.org.uk
- **14.** Centre for Longitudinal Studies (CLS) UCL. 1970 British Cohort Study
- **15.** Working Minds. Work Right

