

Eliminating driver distractions

We're all human: we daydream, get side-tracked, run late and make mistakes. But when we're at the wheel, we all need to tune in to road safety and give it our full attention.

A moment's distraction can be fatal. USA research¹ found driver inattention within three seconds of an incident was a contributory factor in 78% of crashes and 65% of near-misses studied.

At-work drivers are particularly at risk of being distracted. A Brake survey² of UK at-work drivers found they are much more likely to use a hand-held or hands-free phone at the wheel than people who only drive for non-work purposes: 55% of at-work drivers admitted taking this risk, compared to 36% of non-work drivers.

Employers must take steps to educate drivers and reduce this risk. This helps safeguard employees and other road users, and reduces financial costs associated with unnecessary crashes caused by distraction.

This Brake guidance summarises advice from academics and fleet practitioners on how to eliminate driver distractions. The guidance was delivered at a Brake webinar in September 2013.

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Key distraction risks

Distraction can be caused by anything that draws the driver's attention away from the road through sight, sound, thought or physical action.³ Some key risks are listed below.

Passengers

Conversations with passengers, unlike mobile phone conversations, usually pause when the driver approaches a hazard.⁴ However, too much noise in the vehicle calls the driver's attention towards the sound and away from the road. Drivers should keep interaction with passengers to a minimum and avoid getting drawn into in-depth conversations or heated debates.

About this report

This guidance report is one of a series for fleet and road safety professionals produced by Brake, the road safety charity. These reports highlight research and best practice from papers presented at Brake events and from other relevant sources, and aim to help professionals reduce road risk through dissemination of this critical information. These reports are produced for the benefit of Brake subscribers and event participants. To subscribe to Brake or attend a Brake event, visit us online at www.brake.org.



Children can be particularly distracting in a vehicle, so it is essential they are properly restrained and understand the dangers of distracting the driver. If necessary, drivers should pull over to calm children if they are being distracting.

Loud music

Research⁵ has found listening to loud music while driving slows drivers' hazard reaction times, and encourages aggressive driving. It can also prevent drivers hearing what is going on around them. Adjusting the controls of radios and other music players can also be very dangerous. Several studies⁶ into driver distraction have found that operating an entertainment device while driving leads to slower reaction times and more errors such as lane departure.

Eating and drinking

Research⁷ has found drivers who eat and drink at the wheel are twice as likely to crash. Eating and drinking while driving diverts attention away from the driving task, resulting in slower responses to hazards. It also causes physical distraction, as at least one hand is off the wheel while holding food or drink.

Smoking

Finding and lighting a cigarette causes both mental and physical distraction, as the driver's attention will be focused on the cigarette rather than the task of driving, and at least one hand will be off the wheel. Once lit, smoke from the cigarette may impair the driver's vision, and a lit cigarette falling into the driver's lap or onto a seat could cause further distraction as the driver tries to find it to put it out. Several studies⁸ have found smoking while driving increases crash risk. A study⁹ of distraction-related crashes in the USA from 1995-99 found smoking was a source of distraction in 12,780 crashes.

In some countries, including the UK, it is illegal to smoke in a vehicle used for work purposes.

Using electronic devices

There is a vast body of research on the dangers of using either hand-held or hands-free mobile phones at the wheel: some of the evidence on this topic is cited by Dr Nick Reed of TRL, below.

Adjusting a sat nav while driving distracts from the task at hand, with potentially devastating consequences. For example, in September 2012, a woman who had been looking at her sat nav for at least 18 seconds while driving at 40-50mph (65-80km/h) hit and killed a cyclist in Berkshire, UK.¹⁰

Why is driver distraction so dangerous?

Dr Nick Reed, principal human factors researcher, Transport Research Laboratory

nreed@trl.co.uk



Modern life places demands on our capabilities to multi-task. A variety of tasks have the potential to distract a driver from the activities critical for safe driving. These include eating, smoking, and adjusting a music player or navigation system. A relatively common task in which drivers choose to engage is the use of a mobile phone.

Observational studies across Europe, Australia and the US have found that 1-6% of drivers are engaged in phone calls when driving.¹¹ Telephone communication in vehicles began in the 1940s¹² when car phones first became available. In the 1990s, with the advent of digital cellular networks combined with further miniaturisation of the technology and improved affordability, uptake became widespread. Data from the World Bank¹³ shows how market penetration of mobile phones increased rapidly in Europe and the US through the 1990s and worldwide in the 2000s, making mobile phones near ubiquitous.

Research in 2003¹⁴ found drivers who drove between one and 80% of their annual mileage for work had a 13% higher crash risk than a control group of drivers who did no driving for work. Those who drove more than 80% of their annual mileage for work had a 53% greater crash risk than those who did not drive for work. These increased crash risks took into account annual mileage, proportion of motorway driving, age and sex of participants. This suggests there is something characteristically different about driving for work that increases crash risk. The study also found those who drive for work to be far more likely to adopt risky behaviours, including: using a hands-free mobile phone; reading a map; or driving when tired.

One frequently-cited study¹⁵ examined mobile phone records of drivers involved in collisions. It found a four-fold increase in collision risk for drivers using a mobile phone, whether hand-held or hands-free. The evidence indicated this increased risk persisted for a short time after a call finished.

Many studies have investigated the distracting effect of mobile phones on driving. Strayer and Drews¹⁶ recorded brain activity during a simulated driving task. The brain's physiological response to the appearance of brake lights on a vehicle ahead was found to be lower for drivers who were having a hands-free conversation on a mobile phone, suggesting this was interfering with driving responses.

In conclusion, a variety of studies have demonstrated that mobile phone use is associated with an increase in collision risk. Our mobile phones are increasingly essential multifunctional tools which help us to manage our everyday lives, but the temptation to use them when driving must be resisted.

3M tackles mobile phone risk through policies and education

John Klee, corporate communications manager, 3M

john.klee@mmm.com



3M is a producer of vehicle and highway safety products with more than 4,000 employees across the UK and Ireland. The company has operated a total ban on using hands-free and hand-held mobile phones at the wheel since July 2008.



Employees can only use phones if their vehicles are stationary, with the engine switched off. The ban covers all employees, whether they are driving company cars or using their own vehicles on business. Shortly after the ban was introduced, almost three quarters of 3M employees said their customers either welcomed the ban or were neutral about its introduction.

The company carries out regular employee surveys to determine the effect of the ban. The surveys have shown steadily increasing support among employees. When the ban was first introduced just 19% of employees were in favour of it and 56% were against. By July 2012 the majority had swung in favour of the ban at 43%, with only 34% against.

The ban has also had a beneficial effect on behaviour. In October 2008, 59% of employees said they had

hands-free kits in their cars; this percentage has reduced every year since, dropping to just 9% by July 2012. Almost half (49%) of 3M's employees say they have stopped using their personal mobile phones when driving, or have reduced the number of personal calls made, indicating the company's educational messages are hitting home.

As well as its internal staff surveys, in December 2008 3M carried out an online survey of UK businesses on driving and distraction issues. More than 1,600 drivers responded, of whom more than 1,000 drove for business purposes.

The survey found the risk of using a hands-free mobile phone is widely understood by UK drivers: 62% agreed that talking on a hands-free phone makes a crash more likely. 44% said they thought the roads would be safer if using a hands-free mobile while driving was banned by law. However, only 24% said they thought it actually should be banned, and 62% admitted they used hands-free mobile phones while driving.

The survey confirmed that drivers are aware they are distracted by hands-free phones: more than half (56%) agreed it had a negative effect on their driving, and almost one in three (30%) admitted to having missed a turning while talking on a hands-free phone – a clear indication of distraction. The fact that so many drivers continue to use hands-free phones despite recognition of the risks indicates that employers should take the lead and implement clear, unambiguous bans on using hands-free while driving.

Advice for fleet managers

Tackle the risk of driver distractions by:

- educating drivers on key distraction risks including mobile phones, sat navs, eating and drinking, loud music, and conversation with passengers;
- having appropriate policies in place to guard against distractions, for example banning the use of hand-held or hands-free mobile phones while driving;
- supporting drivers to abide by these policies, for example by allowing adequate time on journeys to take lunch breaks, rather than eating at the wheel;
- enforcing policies consistently, for example by carrying out spot checks of vehicles for cigarette ash or food debris, and taking action on drivers who violate policies;
- communicating policies to suppliers, customers and other contacts, to manage expectations (for example, that drivers will not receive calls at the wheel) and spread best practice throughout the supply chain;
- running anonymous staff surveys to measure engagement with road safety messages and compliance with policies; and

- lobbying local and national governments for changes to road safety laws on distractions, for example a full ban on hand-held or hands-free mobile phone use.

Road Safety Week

Road Safety Week is coordinated annually by Brake in the UK and New Zealand. It involves thousands of people around the country taking action for safer roads including organisations, local authorities, emergency services, schools, colleges and community groups.

The theme for Road Safety Week UK 2013 (18-24 November) and Road Safety Week NZ 2014 (19-25 May) is 'tune in'. Brake is calling on drivers and fleet managers to tune in to road safety and avoid distractions at the wheel, giving driving the full attention it deserves for safety.

For information and advice on getting involved, and to see what other organisations did for Road Safety Week in previous years, visit www.roadsafetyweek.org.uk/organisations or www.brake.org.nz/roadsafetyweek.

End notes

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