THE UNIVERSITY OF WESTERN AUSTRALIA | WESTERN AUSTRALIAN CENTRE FOR ROAD SAFETY RESEARCH

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MOBILE PHONE DISTRACTION

and how it influences road safety

Your mobile phone can distract you from the tasks that are critical for safe driving, especially when you:[1]

- make or receive phone calls, or create or read text messages; or
- use any phone apps (e.g., browse the internet, watch videos, read or send emails, or scroll through social media).

Mobile phones can distract a driver in three ways: visually (what you see), cognitively (what you're thinking about), and physically (what you're doing).[2 3]

When you look at or use your mobile phone while driving you may take your eyes and/or mind off the road, or your hands off the steering wheel.[2 3] Even using your phone hands-free (and this includes accessing phone functions with technology such as Apple CarPlay and Android Auto) still contributes to cognitive distraction while driving.[2]

Potential consequences of mobile phone distraction

Decreased road awareness

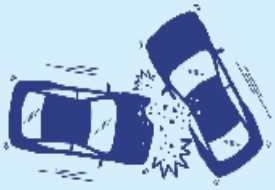
- Delays your responses to different traffic light signals.[2 3]
- You pay less attention to the road in front of you, other cars around you, and obstacles on the road.[1 3]
- You miss important activity on the road in your periphery – e.g. other vehicles, cyclists, and pedestrians.[1-3 5]
- Delays your overall response to events happening on the road.[2 4]

Reduced driving ability

- Makes it difficult to maintain a correct lane position.[2]
- Makes it difficult to maintain a consistent and appropriate speed, so you often drive slower.[2 3]
- You drive too close to the car in front of you.[2]
- You do not safely negotiate turns into traffic according to the traffic flow.[2 3]

Slowed reaction time

- You take longer to react to what's happening on the road, which can affect your response to different road events.[2 5 6]
- You are less able to respond to road traffic signals appropriately.[1-3]
- It takes you longer to react to an event and begin braking, which leads to harsh and abrupt braking.[3 7]



Harsher braking

- Abrupt and excessive braking can occur with any type of phone call (hands-free or hand-held).[2 3 7]
- You can put others in danger due to abrupt braking, especially the vehicles behind you.[7]

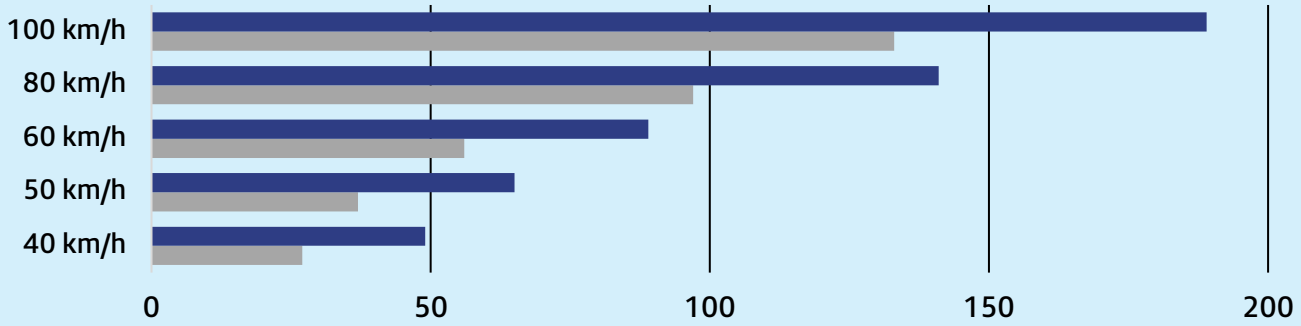
Crash risk and mobile phone distraction

- While the risk of being involved in a crash varies depending on the task (e.g. talking versus texting), it is always higher if you use a mobile phone while driving.[10]
- When sending or reading text messages, you can leave your lane up to 28% more and incorrectly change lane up to 140% more.[2]

Using a mobile phone while driving can increase your risk of crashing by four times or more.[2 10]

- When you're distracted by your mobile phone, your reaction time to hazards can be 50% longer.[5] The distance it takes you to stop (stopping distance) includes the time it takes you to react and brake. By taking your eyes off the road for even 2 seconds, your stopping distance is significantly longer than normal, which increases your crash risk.[11]

Stopping distance (metres)[9 11]



Mobile phones and driving: the rules in WA

Making or receiving an audio call on the phone while driving[8]

- If your phone is mounted to the vehicle you may touch it to make or receive an audio call.
- If your phone is not mounted to the vehicle you may only make or receive an audio call if you don't touch your phone.
- Penalty for breaking this rule: $500 fine + 3 demerit points (except when double demerits apply).

Using your phone for a purpose other than an audio call while driving[8]

- You may use your phone's GPS or navigation function ONLY IF you do not touch the phone AND the phone is mounted to the vehicle. You must not use your phone's GPS where the phone is unmounted or by touching the phone.
- You must not use your phone to read or write text messages, video messages, emails, etc., even if it is mounted and/or can be used without touching. However, on-demand transport drivers may touch a mounted phone to accept, confirm or decline a job, UNLESS they are in a school zone, on a freeway or road with a speed limit of 80 km/h or more, or passing a stationary incident response vehicle with lights activated.
- Penalty for breaking these rules: $1000 fine + 4 demerit points (except when double demerits apply).

To reduce your crash risk, turn off your phone, keep it out of reach, put it on mute, or put it on 'do not disturb' while you're driving. The safest option is not to use your mobile phone at all while you're driving.

References

[1] Wijayaratna KP, et al. Mobile phone conversation distraction: Understanding differences in impact between simulator and naturalistic driving studies. Accident analysis and prevention. 2019;129:108-118. [2] World Health Organization. Mobile phone use: A growing problem of driver distraction. 2011. [3] Centre for Accident Research & Road Safety - Queensland (CARRS-Q). Mobile phone use & distraction. 2020. [4] Choudhary P, Velaga NR. Modelling driver distraction effects due to mobile phone use on reaction time. Transportation research. Part C, Emerging technologies. 2017;77:351-365. [5] Haque, MM and Washington S. Effects of mobile phone distraction on drivers' reaction times. Journal of the Australasian College of Road Safety. 2013;24(3):20-29. [6] Horrey WJ and Wickens CD. Examining the Impact of Cell Phone Conversations on Driving Using Meta-Analytic Techniques. Human factors. 2006;48(1):196-205. [7] Haque MM, Washington S. The impact of mobile phone distraction on the braking behaviour of young drivers: A hazard-based duration model. Transportation research. Part C, Emerging technologies. 2015;50:13-27. [8] Road Traffic Code reg 265. [9] New South Wales Government, Centre for Road Safety. Driving too fast. [10] King M, et al. Scoping Study of Mobile Phone Use While Driving. Centre for Accident Research & Road Safety (CARRS-Q). 2017. [11] Klauer, SG et al. The Impact of Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data. US Department of Transportation. 2006.