



Cell Phone Policy Kit

Key Research Studies

Effective prevention is grounded in science. The National Safety Council's focus on the risks of distracted driving, including a recommendation to ban the use of hands-free and handheld phones while driving, is based on the extensive research available. The most updated research list is available at <http://distracteddriving.nsc.org> on Key Research page.

Meta-Analyses & Literature Reviews

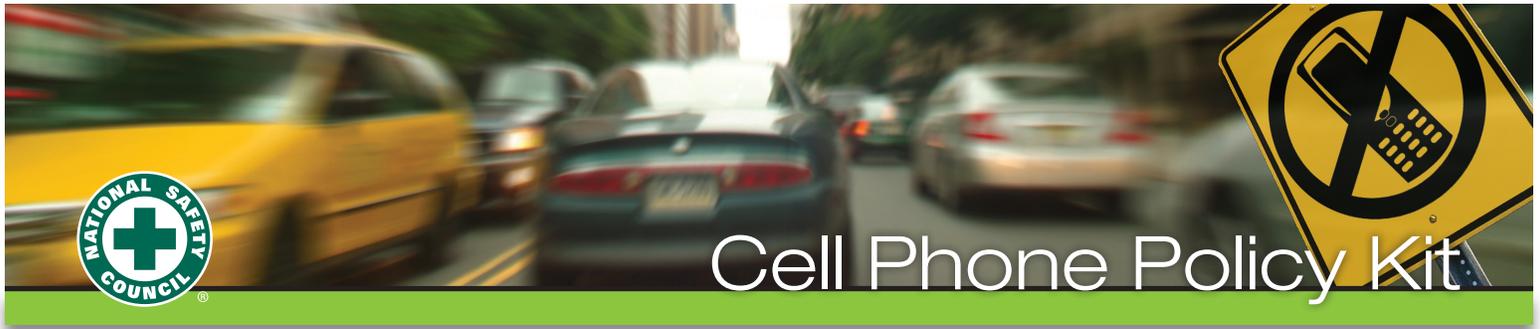
Very convenient for an overview of the issues, these studies have aggregated the results of many studies into single analysis papers.

- [Is a hands-free phone safer than a handheld phone?](#)
Ishigami & Klein. Journal of Safety Research 40 (2009) 157–164.
- [Analysis of the Literature: The Use of Mobile Phones While Driving](#)
Brace, Young & Regan. Monash University Research Centre (2007).
- [Cell phones and driving: review of research](#)
McCartt, Hellinga, Braitman. 2006. Traffic Injury Prevention 7:89-106.
- [The Impact of Cell Phone Conversations on Driving, A Meta-Analytic Approach](#)
Horrey & Wickens. Technical Report. University of Illinois at Urbana-Champaign (2004).
- [A meta-analysis of driving performance and crash risk associated with the use of cellular telephones while driving](#)
Caird, et al. Department of Psychology University of Calgary, Honeywell, Human Factors North. PROCEEDINGS of the Third International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design.
- [Effects of Cellular Telephones on Driving Behaviour and Crash Risk: Results of Meta Analysis](#)
Caird, et al. CAA Foundation for Traffic Safety (2004)

Increased Crash Risk

The first two studies listed are the important epidemiological studies that both identified an elevated crash risk of four times, for property damage and injury crashes.

- [Association between cellular telephone calls and motor vehicle collisions](#)
Redelmeier & Tibshirani. (1997). New England Journal of Medicine, 336; 453-458.
- [Role of mobile phones in motor vehicle crashes resulting in hospital attendance: a case-crossover study](#)
McEvoy, et al. BMJ 2005;331(7514):428
- [Cellular Phone Use While Driving: Risks and Benefits](#)
Lissy, et al. Harvard Center for Risk Analysis (2000). Phase 1 Report.



- [Crashes Induced by Driver Information Systems and What Can Be Done to Reduce Them](#)
Green. University of Michigan Transportation Research Institute (2000).
- [The role of driver distraction in traffic crashes](#)
Stutts, et al. (2001). AAA Foundation for Traffic Safety

Hands-Free Devices

These studies examine the risks of hands-free devices.

- [Is a hands-free phone safer than a handheld phone?](#)
Ishigami & Klein. Journal of Safety Research 40 (2009) 157–164.
- [Hand-Held or Hands-free? The Effects of Wireless Phone Interface Type on Phone Task Performance and Driver Preference](#)
Mazzae, et al. NHTSA Report
- [Analysis of the Literature: The Use of Mobile Phones While Driving](#)
Brace, Young & Regan. Monash University Research Centre (2007).
- [Driving performance while using cell phones: an observational study](#)
Rosenbloom. Journal of Safety Research, Volume 37, Issue 2, 2006, Pages 207-212
- [Phone-Induced Failures of Visual Attention During Simulated Driving](#)
Strayer, Drews & Johnston. University of Utah. (2003). Journal of Experimental Psychology No. 1; 23-32.
- [The Impact of Auditory Tasks \(as in Hands-Free Cell Phone Use\) on Driving Task Performance](#)
Insurance Corporation of British Columbia (ICBC) Transportation Safety Research (2001).
- [Mobile phone use—Effects of Handheld and Handsfree Phones on Driving Performance](#)
Törnros & Bolling. Accident Analysis and Prevention. 2005 Sep;37(5):902-9

Cognitive Distraction

Explore the variety of outcomes of cognitive distraction and impact on driving performance.

- [A decrease in brain activation associated with driving when listening to someone speak](#)
Just, et al. Brain Research 1205 (2008) 70-80.
- [Telephone conversation impairs sustained visual attention via a central bottleneck](#)
Kunar, et al. Psychonomic Bulletin & Review 2008, 15 (6), 1135-1140.
- [Using mobile telephones: cognitive workload and attention resource allocation](#)
Patten, et al. Accident Analysis and Prevention 36 (2004) 341–350.
- [Cell Phone Induced Perceptual Impairments During Simulated Driving](#)
Strayer, et al. Department of Psychology, University of Utah (2001).
- [Cell Phone Induced Failures of Visual Attention During Simulated Driving](#)
Strayer, Drews & Johnston. Journal of Experimental Psychology: Applied. 2003, Vol. 9, No. 1, 23–32.



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Text Messaging

Risk of text messaging is specific focus of this research.

- [The Effect of Text Messaging on Driver Behavior: A Simulator Study](#)
Reed & Robbins. Published Project Report PPR 367. Transport Research Laboratory (2008)
- [The effects of text messaging on young novice driver performance](#)
Hosking, Young & Regan. Report No. 246. Monash University Accident Research Centre (2006)

Cell Phones Compared to Impaired Driving

The media frequently refers to studies that compared cell phones with driving while impaired by alcohol.

- [Fatal Distraction? A Comparison of the Cell-Phone Driver and the Drunk Driver](#)
Strayer, Drews, Crouch. Department of Psychology, University of Utah.
PROCEEDINGS of the Second International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design.

Passenger vs Cell Phone Distraction

People often ask how cell phones are different from talking with passengers. Here is information comparing the two.

- [Passenger and Cell Phone Conversations in Simulated Driving](#)
Drews, Pasupathi, Strayer. Journal of Experimental Psychology: Applied 2008; 14(2): 392-400

Prevalence & Observation Studies

These studies estimate how many drivers are using cell phones either through direct observation of traffic or other methods.

- [An Examination of Driver Distraction as Recorded in NHTSA Databases](#)
(2009) NHTSA Traffic Safety Facts Research Note DOT HS 811 216.
- [Driver Electronic Device Use in 2008](#)
(2009) NHTSA Traffic Safety Facts Research Note DOT HS 811 184.
- [Driver Electronic Device Use in 2007](#)
(2008) NHTSA Traffic Safety Facts Research Note DOT HS 810 963.
- [Driver Cell Phone Use in 2006 — Overall Results](#)
Glassbrenner & Ye. (2007) NHTSA Traffic Safety Facts Research Note DOT HS 810 790.



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- [Driver Cell Phone Use in 2005 — Overall Results](#)
Glassbrenner. (2005) NHTSA Traffic Safety Facts Research Note DOT HS 809 967.
- [Passenger Vehicle Driver Cell Phone Use Results from the Fall 2000 National Occupant Protection Use Survey](#)
Utter. (2001) NHTSA Research Note DOT HS 809 293
- [Observed Driver Phone Use Rates in Canada](#)
Burns, Lécuyer, Chouinard. Transport Canada (2008) Proceedings of the 18th Canadian Multidisciplinary Road Safety Conference.

Evaluations of Laws

These papers share findings of the effectiveness of laws that address wireless device use while driving.

- [Longer-term effects of Washington, DC, law on drivers' hand-held cell phone use](#)
McCartt & Hellinga. Traffic Inj Prev. 2007 Jun;8(2):199-204.
- [Effects of Washington, D.C. law on drivers' hand-held cell phone use](#)
McCartt, Hellinga, Geary. Traffic Inj Prev. 2006 Mar;7(1):1-5.
- [Longer term effects of New York State's law on drivers' handheld cell phone use](#)
McCartt & Geary. Inj Prev. 2004 Feb;10(1):11-5.
- [Drivers' use of handheld cell phones before and after New York State's cell phone law](#)
McCartt, Braver, Geary. Prev Med. 2003 May;36(5):629-35.

More Key Studies

- [The Impact of Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data](#)
Klauer, et al. (2006) NHTSA Technical Report. DOT HS 810 594.
- [Effects of Simulator Practice and Real-World Experience on Cell-Phone-Related Driver Distraction](#)
Cooper & Strayer. Human Factors 2008; 50(6): pp. 893–902
- [Distractions in Everyday Driving](#)
Stutts, et al. University of North Carolina at Chapel Hill Highway Safety Research Center (2003) AAA Foundation for Traffic Safety.
- [Mobile telephone simulator study](#)
Kircher, et al. Swedish National Road and Transport Research Institute (2004)
- [The Use of Mobile Phones in Road Traffic, SNRA inquiry into the use of mobile phones and other IT systems while driving](#)
Patten, et al. (2003). Swedish National Road Administration.
- [Predicting the effects of in-car interface use on driver performance: an integrated model approach](#)
Salvucci. Int. J. Human-Computer Studies (2001) 55, 85}107



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Public Opinion Surveys

Recent surveys have measured public support for hands-free, handheld and texting bans. These surveys also offer insight into driver attitudes, beliefs and behaviors.

- [Nationwide's third annual Driving While Distracted Survey](#)
The survey reports that 80 percent of drivers surveyed are in support of some type of legislation to restrict cell phone use while driving. Nationwide Insurance, 2009.
- [2009 Traffic Safety Culture Index](#)
AAA Foundation for Traffic Safety, 2009.
- [The Harris Poll. Large majority of drivers who own cell phones use them while driving even though they know this is dangerous.](#)
Harris Interactive, 2009.

Reports

- [Cell Phones and Driving: Research Update](#)
AAA Foundation for Traffic Safety (2008)
- [NHTSA Status Summary: Using Wireless Communication Devices While Driving](#)
July 2003 report. Obtained via Freedom of Information Act and published by the New York Times.
- [Cell Phone Use](#)
Monteressi. ExxonMobil Biomedical Sciences Inc.

Conferences and Events

- [USDOT NHTSA Distracted Driving Summit, 2009](#)
- [National Safety Council 2008 International Symposium on Distracted Driving](#)
- [Traffic Injury Research Foundation \(TIRF\) 2005 International Conference on Distracted Driving](#)

Disclaimer: Although the information and recommendations contained in this publication have been compiled from sources believed to be reliable, the National Safety Council makes no guarantee as to, and assumes no responsibility for, the correctness, sufficiency or completeness of such information or recommendations. Other or additional safety measures may be required under particular circumstances. Visit distracteddriving.nsc.org for the latest material and updated content for the Cell Phone Policy Kit.