

## **In-Vehicle Cell Phone Use - Assessing Accident Risk**

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Mobile phone use in motor vehicles has increased at a remarkable rate over the past 15 years. Yet it is undeniable that utilizing a cell phone while driving can affect driver performance as it relates to the overall safe operation of a vehicle. There are a number of things to consider in deciding whether the trade off in convenience is worth the potential risks associated with the distraction created by a cell phone. Given the fact that the individual driver (and/or business owner) ultimately pays for the resulting consequences associated with an auto or truck accident (financial, emotional and physical loss); it is prudent to seek out relevant and reliable information in making a decision. In doing so, consider the source, as well as the possible motivation behind the information provider.

### **Source: US Legislation**

In the United States, there are currently no federal laws prohibiting driving while using a cell phone. In an earnest attempt to find a solution, some states (New Jersey, New York, the District of Columbia, Connecticut and pending in California) have passed laws barring hand-held cell phone use while driving. Typical fines range from \$50 to \$100 for drivers caught using a hand-held device. While these lawmakers have the public's best interest at heart by levying fines, not all entities weighing in on this subject are likely to have the same incentive.

### **Source: Manufacturer Research**

As the result of an independent study (found on their web site in the form of a press release), Plantronics, a manufacturer of headsets states, "71% of drivers steer more accurately when using a headset with a mobile phone". They point out that the study was to discover if a person using a mobile phone improves driving if he or she uses a headset. Stephen Wilcox, Ph.D., Principal of Design Science (independent research firm) states, "Driving with both hands on the wheel is the safest option for motorists who use mobile phones, and headsets are tools to enable that improvement." Considering the source, is this statement characteristic of scientific research? Is it objective and free of marketing bias? Could it confuse individuals into thinking that cell phones are safe as long as you are hands-free? Additionally, found toward the end of the press release, is a comment by a senior director of product marketing. Beth Johnson states, "It's important to keep in mind that our study is not intended to address the issue of whether or not it is safe to talk on a mobile phone while driving, but rather what type of technology is safest for drivers to use while talking on their mobile phones". They also state their intent is to "educate drivers on options for using mobile phones comfortably and responsibly while driving". Given that the goal is safety education, is this research responsibly comprehensive to consider it a relevant and reliable source?

Surely, as you go about your own assessment the idea of freeing up both hands to control the steering wheel is a logical consideration. If a driver focuses exclusively on driving the vehicle, then two hands on the wheel is better than one. Unfortunately, this seemingly sensible approach can lead to a false sense of driver security (possibly increasing crash risk) as noted in various reports (<http://www.vcu.edu/cppweb/tstc/reports/reports.html>) by the Crash Investigation Team at Virginia Commonwealth University Center for Public Safety. Their findings illustrated that the cognitive resources required to carry on a phone conversation are equivalent to those necessary to drive. This is an important concern given VCU's history of transportation safety research, as well as other studies concluding this behavior (carrying on a phone conversation while driving), reduces both driver reaction time and driver attentiveness, especially as they relate to braking.

Unlike a computer, humans have a limited capacity to process simultaneous information. If the software on your computer seems to slow down, you might consider increasing the memory or processor speed to compensate for delays resulting from an overload in computing capacity. We as humans have a similar limitation when it comes to processing too much information, but unlike computers, our resources are somewhat fixed. Given the inherent delays in our own thought response time when faced with increased load factors, is it practical or safe to hold a cell phone conversation while driving a motor vehicle?

**Source: Government Transportation Safety Research**

The US government employs many of the top transportation safety experts and funds a major portion of the world's accident prevention research. Given the effects traffic accidents and related congestion have on US productivity, accident reduction is a top priority. Considering that distracted driving accounted for at least 6.4 percent of crash fatalities in 2004 (U.S. Department of Transportation), many researchers are looking closely at the distinguishing distraction caused by cell phone use in vehicles. Furthermore, of the many potential distractions in a vehicle, cell phones are considered equally or more dangerous than the other known distractions such as eating, reading a map or grooming while operating a motor vehicle. In light of the ongoing research for, and by, the National Highway Traffic Safety Administration ([www.nhtsa.gov](http://www.nhtsa.gov)) we should at least consider their policy on using cell phones while driving that states "The primary responsibility of the driver is to operate a motor vehicle safely. The task of driving requires full attention and focus. Cell phone use can distract drivers from this task, risking harm to themselves and others. Therefore, the safest course of action is to refrain from using a cell phone while driving."

**Source: Cellular Telecommunications & Internet Association (CTIA)**

According to the CTIA, there are currently more than 218 million subscribed cell phone users as of August 2006 (compared to some 4.3 million in 1990). Based on the extraordinary growth of cellular phone industry and the CTIA's advisory role, it may be of value to think about their point of view on this topic. In doing so, you might consider a document found on the CTIA's web site, entitled "SafeDrivingTalkingPoints2" (created June 6, 2006) that states "But for some reason, legislative efforts to prevent driver distractions have been narrowly focused on wireless phone use. According to government statistics and respected research studies, this approach is well off point." Consider that, there are more than 220 million vehicles on the road and a similar number of cell phones subscribers. Based on the amount of time customers might potentially spend using their cell phones in vehicles, we would hope to find the CTIA an objective source. Given the magnitude of the revenue at stake, is a greater degree of scrutiny in order here? Would the CTIA hold a different position if they were liable, in part, for distracted vehicle accidents?

**Source: Leading Universities & Independent Researchers**

While there are a number of valuable studies on this subject, the following are extensive research projects provided by highly accredited organizations:

1) Virginia Tech Transportation Institute researchers and the National Highway Traffic Safety Administration (NHTSA) tracked 100 cars and their drivers for a year; they discovered that talking on cell phones caused more crashes, near-crashes and other incidents than other distractions (100-Car Naturalistic Driving Study, April 2006).

2) University of Utah researchers determined that motorists on the blood-alcohol threshold of being legally drunk were able to drive better than sober cell phone using drivers. A key researcher and author in this field, Psychology Professor David Strayer notes, "Just like you put yourself and other people at risk when you drive drunk, you put yourself and others at risk when you use a cell phone and drive. The level of impairment is very similar." Also, consider they found motorists to be more accident-prone and slower to react when talking on cellular telephones. It did not matter if it

was hands-free either because of "inattention blindness", a syndrome that makes a driver less able to process visual information.

3) The George Institute for International Health (University of Sydney, Australia), Insurance Institute for Highway Safety (Arlington, Virginia) and Injury Research Centre, University of Western Australia (Crawley Australia) jointly presented research entitled "Role of mobile phones in motor vehicle crashes resulting in hospital attendance: a case-crossover study". The research consisted of 456 drivers aged  $\geq 17$  years who owned or used mobile phones and had been involved in road crashes requiring hospital attendance between April 2002 and July 2004. They concluded that a driver who uses a mobile phone (up to 10 minutes prior to a crash) has a four times higher likelihood of crashing and an increased likelihood of a crash resulting in injury. Using a hands-free phone is not any safer.

### **Eliminate the Risk & Keep the Benefits**

If you are the head of a household, a guardian or the parent of a less experienced driver, your decision to allow any in-vehicle cell phone use carries a major emotional and financial risk. If you are a fleet manager or you employ individuals that conduct work-related conversations while driving, the risk of liability for distracted accidents could fall on you. Strongly consider the legal ramifications for the careless operation of an employee-owned or company-supplied vehicle before deciding to ignore the inherent danger created by a major cognitive distraction such as a cell phone.

Obviously, there are no easy or certain solutions without sacrifice of convenience. Remember that the benefit of having a cell phone (emergency use and times when you are not operating a vehicle) is not lost just because it remains off while driving. If you consider the facts presented by relevant and reliable sources, it really is not a matter of a trade off after all, but an opportunity to prevent an accident or possibly a fatality. In the mean time, until it is proven otherwise, think about instigating a life saving strategy NOW for the safe use of cell phones - limit yourself, loved ones and employees to use (personal and business) only when the vehicle is in park!

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