



# What is cognitive distraction?

Cognitive distraction is the trickiest of the three distractions drivers face behind the wheel. This is because drivers do not know when they are cognitively distracted and, therefore, do not remedy the situation the way most would if they took their hands off the wheel or eyes of the road.

## Multitasking is a myth

Driving and engaging in a cell phone conversation are two tasks that require significant brain power. Contrary to popular belief, **the human brain cannot multitask**. The brain switches, often rapidly, between two cognitive activities making us erroneously believe we can perform two complex tasks at once. What happens instead is the brain prioritizes complex cognitive activities. To demonstrate this, try thinking of an elephant while reading this entry. You can't do it. Your brain shifts from one to the other. If a driver is talking on a cell phone while driving – whether hands-free handheld – **the brain automatically prioritizes the cell phone conversation first and the task of driving second**.

## Passenger conversations are different

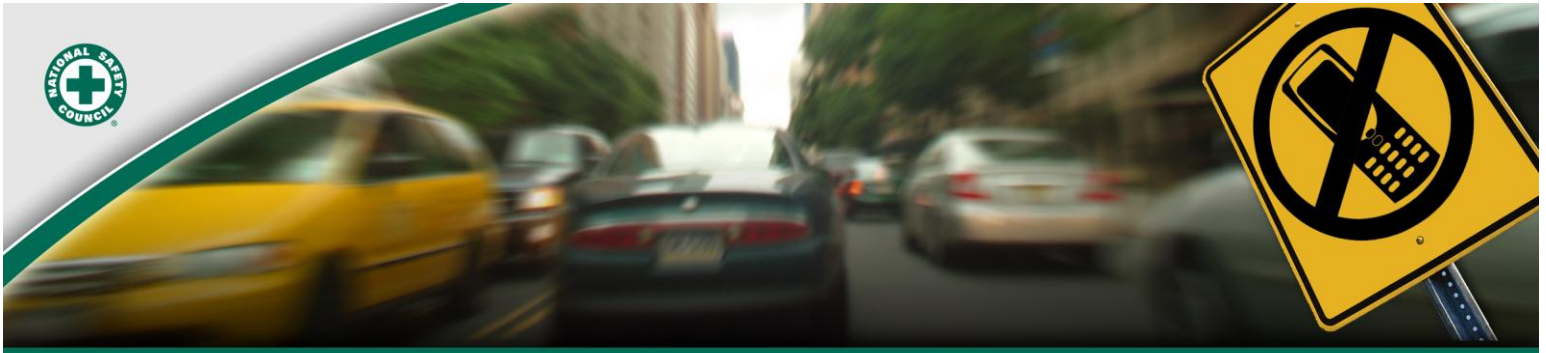
A common myth is talking on a cell phone while driving is not different than talking to a passenger, but paying attention to a conversation with a disembodied voice contributes to numerous driving impairments. This is in part because **an adult passenger actually can make an adult driver safer** because adult passengers can see the driving environment and often point out things the driver may not see. Think about it: when a driver is talking to a passenger and the driving environment becomes challenging, the conversation will slow or stop. This is because the brain starts focusing solely on driving and not on holding a conversation. Cell phone conversations are unique, too, in that we must think about the other person's reaction because we cannot see him/her. This also makes conversations with passengers easier to hold.

## The need to be available

Cell phones have a certain obligation of immediacy. We are expected to answer a phone call, text message or email right away. Drivers sometimes will answer their phones because they do not want to appear rude.

## Delayed reaction

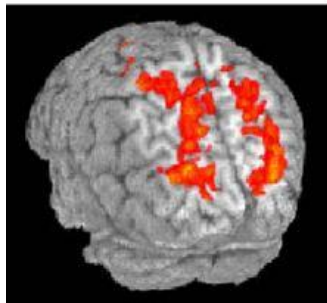
Cell phone use substantially decreases a driver's reaction time. One driving simulator study conducted by the University of Utah found that **drivers using cell phones had slower reaction times than drivers with a .08 blood alcohol content**, the legal intoxication limit. Braking time also was delayed for drivers talking on cell phones – hands-free or handheld. The difference, of course, is a driver talking on a cell phone can eliminate his risk immediately by hanging up the phone whereas an impaired driver is impaired for the duration of the drive.



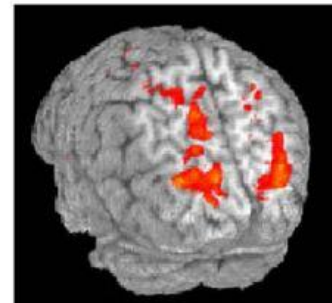
### Decreased brain activity

A study done by Carnegie Mellon University showed a decrease in brain activity while drivers use a cell phone while driving. **The parietal lobe activation, which is associated with processing moving visual images while driving, decreases by as much as 37 percent with sentence listening.**

Driving Alone



Driving with Sentence Listening



NSC encourages all drivers to put safety first by eliminating cell phone use while driving. We simply aren't able to safely operate a vehicle while using handheld or hands-free devices.