



In 2018, the most recent year for which statistics are available, there were 2841 people killed and an estimated 400,000 people injured in motor vehicle crashes involving distracted drivers (NHTSA, 2020). Many experts believe that these statistics under-represent the number of crashes that involve distraction because they are relying on police reports and self-reporting of drivers. Regardless, these numbers indicate that distracted driving is a dangerous problem that is likely to increase as potentially distracting in-vehicle technology is added to vehicles and as people bring distracting personal electronic devices into vehicles.

# What is **Distracted Driving?**

Distracted driving can be defined as any activity that diverts attention away from activities critical for safe driving. Driving distractions can be categorized into three main areas: visual, manual, and cognitive.

- Visual distractions are objects or activities that take the driver's visual attention away from the road and driving environment
- Manual distractions are objects or activities that take a driver's hands off the wheel
- •Cognitive distraction takes a driver's mind off the road

An example of a visual distraction is looking at a phone to read a text message. An example of a manual distraction is dialing a handheld phone. An example of a cognitive distraction is dictating an email to a voice-activated messaging system. Many distractions require visual, manual, and cognitive resources all at the same time. For example, texting on a handheld phone requires all three resources and is considered a visual, manual, and cognitive distraction.

### Are all distractions equally risky?

All distractions increase crash risk. There are several different methods that are used to measure the crash risk of distracted driving such as police reports, self-reports to insurance companies, and research studies on distracted driving conducted in laboratories that may use low or high-fidelity driving simulators or naturalistic driving studies. While the crash risk and odds ratios may differ from study to study, it is overwhelmingly clear that distracted driving of any type is risky. Distractions that require a combination of visual, manual, and cognitive resources are the most risky. For example, texting while driving raises a driver's crash risk by 23 times that of normal driving.

### The effects of distracted driving on driver performance include the following:

- Increased time that eyes are off road
- Increased reaction time to hazards
- Greater speed variability and slower mean speed
- Increased lane deviations and lane departures
- Closer car following

# Human Factors Investigations of Distracted Driving

The role that distraction may have played in a vehicle crash is a complex issue that requires experts with specialized knowledge and expertise in the area of <a href="https://www.human.factors">human.factors</a>. A human factors expert uses a combination of accident analysis techniques, knowledge of human behavior and performance, and experience investigating vehicle collisions to determine the relevant factors in a crash. Human factors experts analyze issues such as whether a reasonably attentive driver would have been able to avoid the collision, whether a driver was distracted (i.e., exhibiting the known effects of distracted driving), and whether distraction was a cause of the collision.

## If your case involves distracted driving, contact Dr. Nancy Grugle to discuss details that may have played a role in your case.

#### Nancy Grugle, PH.D., CHFP

Human Factors Expert

Exigent Forensic Consulting

Mobile. 720-879-1162 | Office. 610-255-2171 |

Email. NGrugle@exigent-group.com

### About **Exigent**

Exigent is a legal technology provider and consulting organization that is breaking industry boundaries and raising the bar for data-driven decision-making. Through a powerful combination of technology, analytical thinking, and financial acumen, Exigent's multidisciplinary team develops solutions to drive change in business, in the legal department and beyond. Whether it is AI for contract management or supplying expert witnesses through its Forensic Consulting and Medical Legal Services divisions, Exigent provides businesses with the questions and answers they need to make the most of the digital disruption. For information about Exigent, visit exigent-group.com.