



Distracted Driving

In 2024, the most recent year for which statistics are available, there were 3208 people killed and over 315,000 people injured in motor vehicle crashes involving distracted drivers (nhtsa.gov). 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.

Effects of Distracted 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

While some accident investigators may assume that a driver who was using an electronic device at the time of a collision was distracted and that distraction was a cause of a collision, there are circumstances where that assumption is incorrect. Human factors expert use a combination of accident analysis techniques, knowledge of human behavior and performance, and experience investigating vehicle collisions to determine whether a driver was distracted (i.e., exhibiting the known effects of distracted driving) and whether distraction was a cause of the collision.

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