

Cell Phone Use & Driving

Impact on Employee Safety, Productivity and Employer Liability

Motor vehicle crashes

- ▶ 1 million people have died in motor vehicle crashes in the last 25 years
- ▶ 35,000 deaths each year in the U.S.
- ▶ Leading cause of on and off-the-job unintentional deaths in the U.S.
- ▶ Leading cause of death for people 5- to 35 years old
- ▶ Cost to society = \$100 billion per year
- ▶ Society appears to have grown complacent, accepting these deaths and injuries
- ▶ Safety engineering has made significant advances

Motor vehicle crashes

Vehicle maintenance factors

- ▶ Critical reason for crash - 2% of the time

Environmental factors

- ▶ Critical reason for crash - 2% of the time

Human error

- ▶ Critical reason for crash - **94% of the time**

Source: NHTSA Traffic Safety Facts, February 2015

Driving distractions

The Science of Distraction

Visual: eyes on road

Mechanical: hands on wheel

Cognitive: mind on driving

- ▶ Visual and mechanical distractions are short lived - cognitive distractions last much longer
- ▶ Much more than "eyes on the road, hands on the wheel"

Selective attention / switching

1. No such thing as "multi-tasking" When brains are overloaded by two cognitive tasks, people switch attention (without recognizing it)
2. Make one task "primary" and the other "secondary"
Cognitive attention to driving becomes secondary to a phone conversation
3. When driving is a secondary task for the brain, driving becomes impaired. Impairment takes several forms, including inattention blindness and tunnel vision

"Tunnel Vision"



Crashes and cell phones

Risk – how risky is the distraction

Reading	3.4x
Reaching for a moving object	8.8x
Turning around in a seat	8.8x
Talking on a cell phone	4x
Texting	8x

Prevalence – how often is it happening

Manipulating a wireless device	1.7%
Talking on a cell phone	9%

Crashes and cell phones (2013)

- ▶ Minimum of 341,000 crashes
 - ▶ 6% of all crashes, involve texting
- ▶ 1.2 million crashes per year
 - ▶ 21% of all crashes, involve cell phone conversations

27% of all crashes
involve cell phone use

What we know about cell phone use and driving

Role of Mobile Phones in Motor Vehicle Crashes Resulting in Hospital Attendance

Suzanne P McEvoy, Mark R Stevenson, Anne T McCartt, et al - 2004

- ▶ Likelihood of crashing increases by 4x
- ▶ Risk was raised irrespective of whether or not a hands-free device was used

Hands-free and crash risk

Hands free devices do not reduce crash risk:

- ▶ National Safety Council
 - ▶ National Transportation Safety Board
 - ▶ World Health Organization
 - ▶ Insurance Institute for Highway Safety
 - ▶ Governors Highway Safety Association
-
- ▶ 30+ studies reported substantial negative effects of cell phone use on driving for hands-free and handheld phones
 - ▶ Similar effects in reaction time, speed, headway and lateral lane position, for hands-free and handheld phones

What we know about cell phone use while driving

Comparison of the Cell Driver and Drunk Driver

Strayer, Drews, et al, University of Utah - 2004

- ▶ No difference between handheld and hands-free
- ▶ Cell phone distracted drivers have slower reaction times and were more likely to crash than drivers with a .08 BAC

What we know about cell phone distraction

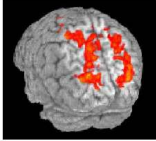
A Decrease in Brain Activation Associated With Driving

Carnegie Mellon University, Center for Cognitive Brain Imaging - 2008

Result

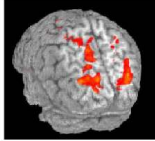
The parietal activation associated with driving decreases substantially (by 37%) with sentence listening.

Driving Alone



L

Driving with Sentence Listening



R

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1412084/figure/F1324856.pdf>

Misperceptions

It's no more dangerous than talking to a passenger

- ▶ A passenger in a vehicle is aware of the driving situation and can even serve as an additional look-out
- ▶ The phone carries a certain obligation of immediacy

There isn't enough evidence to prove that using a cell phone while driving causes crashes

- ▶ Difficult to collect crash data
- ▶ Much evidence, few statistics
- ▶ An absence of statistics does not prove or even indicate the absence of a problem

Misperceptions

What about 2 way radios? Navigation? Books on tape?

- ▶ Simplex communication occurs in one direction only
- ▶ Shorter duration and less complex
- ▶ Never input navigation while the vehicle is moving
- ▶ Voice directions may be less distracting than reading a map and street signs
- ▶ Not a two way, duplexed conversation. Easier to disengage.

Misperceptions

What about voice texting? That must be safer than typing texts, right?

- ▶ Two recent studies from AAA Foundation for Traffic Safety and Texas A&M found same result
- ▶ Voice texting is more distracting than typing texts
- ▶ Drivers look away more
- ▶ It took longer to send a voice text


Putting it all together

Motor vehicle crashes are the leading cause of death for a large percentage of our population

- ▶ Human error causes the vast majority of crashes
- ▶ Cell phone drivers four times more likely to be involved in a personal injury crash
- ▶ Reaction times slower than .08 BAC
- ▶ Hands-free as dangerous as handheld
- ▶ Inattention blindness
- ▶ 37% reduction in spatial processing in the part of the brain used for the task of driving
- ▶ Cell phone use involved in 27% of all crashes

Voluntary compliance is difficult

National Safety Council - 2009



National Safety Council NEWS

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Editors' note: scientific references are available from NSC media relations, 630/775-2307 or media@nsc.org

National Safety Council Calls for Nationwide Ban on Cell Phone Use While Driving
Both Plan Goals to Involves Law Makers, Businesses and Public

Itasca, Ill. — The National Safety Council today is calling on motorists to stop using cell phones and messaging devices while driving, and is urging businesses to enact policies prohibiting it and governors and legislators in all 50 states and the District of Columbia to pass laws banning the behavior.

NTSB Recommends:

- (1) Ban the nonemergency use of portable electronic devices (other than those designed to support the driving task) for all drivers;
- (2) Use the National Highway Traffic Safety Administration model of high visibility enforcement to support these bans; and
- (3) Implement targeted communication campaigns to inform motorists of the new law and enforcement, and to warn them of the dangers associated with the nonemergency use of portable electronic devices while driving.

December 13, 2011

Sample cell phone policy

Company employees may not use cellular telephones or mobile electronic devices while operating a motor vehicle under any of the following situations, regardless of whether a hands-free device is used:

- ▶ When employee is operating a vehicle owned, leased or rented by the Company.
- ▶ When the employee is operating a personal motor vehicle in connection with Company business.
- ▶ When the motor vehicle is on Company property.
- ▶ When the cellular telephone or mobile electronic device is company owned or leased.
- ▶ When the employee is using the cellular telephone or mobile electronic device to conduct Company business.

Companies with policies

- | | |
|-------------------------------|----------------------|
| ▶ Exxon/Mobil | ▶ Abbott |
| ▶ DuPont | ▶ EnCana |
| ▶ Halliburton | ▶ Cargill |
| ▶ Shell | ▶ CSX Intermodal |
| ▶ Chevron | ▶ Schneider National |
| ▶ BP | ▶ Sysco Corporation |
| ▶ Enbridge | ▶ Time Warner Cable |
| ▶ Argonne National Labs | ▶ Potash |
| ▶ Nestle | ▶ Owens Corning |
| ▶ CA Office of Traffic Safety | ▶ NTSB |

Just a sample - no national database of companies with policies

Employer liability

\$21.6 million: A stay-at-home dad received the award for the violent wreck that killed his wife, after a jury found a driver negligent for either talking on her cell phone or some other distraction.

\$21 million: A soft drink beverage salesperson driving a passenger vehicle was using a hands-free headset, in compliance with a handheld ban, when she struck another vehicle and injured the driver. A jury awarded \$21 million in damages to the injured driver.

\$20.9 million: Dyes Industries of Little Rock, Ark., lost a personal injury suit in which its employee was using a cell phone when the crash occurred.

\$18 million: Holmes Transport, of Muscle Shoals, Ala., was ordered to pay the damages by a U.S. District Judge to Mark Tburzi who was left unable to walk or talk after a crash caused by one of their drivers distracted by a cell phone.

\$6.2 million: International Paper employee Vanessa McGrogan was using her company-supplied cell phone when she rear-ended a vehicle driven by Debra Ford.

\$2.5 million: State of Hawaii agreed to pay as its share of liability in a crash involving a state employee who was talking on her cell phone when she hit a tourist.

\$1.5 million: City of Palo Alto has agreed to pay the victim of a 2006 vehicle crash involving a city worker who was using his cell phone while driving.

Mindy Ragsdale & Peggy Woodson

The morning of Jan. 25, 2010, was a clear, sunny Texas day. Mindy Ragsdale, a 31-year-old, stay-at-home mom of two, and her 82-year-old grandmother, Peggy Woodson, were on their way to Mindy's mother's home.

Their sedan was stopped, waiting to make a left turn onto a heavily traveled two-lane rural highway. For 14 seconds prior to the crash, their vehicle should have been in full view of the driver of a cable TV utility pickup truck as it crested a hill and headed toward them with the cruise control set at approximately 70 mph.

Despite the truck driver's one-quarter-mile field of vision, the truck slammed into the rear of Ragsdale and Woodson's vehicle at full speed with the cruise control still engaged. The two were killed on impact.

Company cell phone policies

Survey of NSC member companies - August 2009

- ▶ 2,004 respondents
- ▶ 469 (23.3%) had bans that included both hands-free and handheld wireless communication devices
- ▶ 36.1% of NSC members w/o policies have plans in the next 12 months to create policies
- ▶ Only seven companies (1.5%) with policies reported a decrease in employee productivity
- ▶ 46 companies (10%) reported a productivity increase

Company cell phone policies

Why no decrease in productivity?

- ▶ Most calls are not as "business critical" as assumed
- ▶ Every employee and every company "adapts" (e.g. trip planning)
- ▶ Employees less stressed – they make better decisions
- ▶ Drivers no longer take time from non-driving staff

CEO Selling Proposition

1. Employee cell phone use while driving is a significant and growing safety threat to our employees and the driving public.
2. It has also become a significant financial risk and liability.
3. If a total ban policy is properly implemented and supported, there will not be a negative effect on productivity, customer service or employee morale.

Distracted Driving Website

distracteddriving.nsc.org

- ▶ Download policy kit
- ▶ Links to research and statistics
- ▶ Archived webinars
- ▶ LinkedIn group
- ▶ Distracted Driving Awareness Month materials

Public support

Quinnipiac University

- ▶ 2424 US Voters
- ▶ November 2010, +/- .02
- ▶ **By a 63% - 34% margin, American voters support a federal ban on cell phone use while driving, even while using a "hands-free" device**

Nationwide Insurance "On Your Side Survey"

- ▶ 1008 US drivers
- ▶ August 2009, +/- .03
- ▶ **80% support ban on texting or emailing**
- ▶ **57% support a ban on all cell phone use while driving**

Public support

According to the National Highway Traffic Safety Administration (NHTSA), current scientific research indicates that using a wireless phone while driving degrades a driver's performance, whether with a hands-free or hand-held wireless phone. NHTSA advises that the safest course of action is to refrain from using a wireless phone while driving.

Consider turning your phone off and allowing calls to go to voicemail while driving—for your safety and that of those around you.

-Verizon website
(May 2010)

Public Positions

- Wireless Carriers - generally supportive
- Auto and Consumer Electronics Industries

"Eyes on the road and hands on the wheel"

"Talking - be it interacting with passengers or on the cell phone - has a mixed effect on driving safety. In fact, in the case of drowsy drivers (e.g. truckers), talking on cell phones can actually reduce crashes. Evidence shows that so-called "cognitive distractions" aren't much of an issue, but physical distractions are."

Source: Ford Motor Company

Takeaways

- ▶ We need full attention for the task of driving - cognitive distraction is real - Multitasking is a myth
- ▶ Hands-free is not risk free
- ▶ Risk exposure is what makes cell phone use the biggest threat
- ▶ A total ban on employee cell phone use while driving is "best safety practice" and your company's best defense against liability exposure.

What you can do

- ▶ Personal example - stop using cell phone when driving (change no answer greeting)
- ▶ Don't talk with people who call you while they are driving
- ▶ Educate employees, drivers, parents, friends and family
- ▶ Implement cell phone driving bans
- ▶ Support legislation and enforcement

Kelsey Raffaele - 17-year-old lost control of her car when she passed another vehicle while talking on the phone with a friend. (January 2010, Sault Ste. Marie, MI)



Jay & Jean Good - Killed when hit by a tractor-trailer that swerved to avoid a minivan that ran a light, 18-year-old minivan driver talking on a cell phone. (May 2008, PA)



Erica Forney – Nine year old killed by a cell phone driver while riding her bicycle home from school. (November 2008, CO)

My name is Michelle. I am 36 years old. On Nov. 25, 2008, I accidentally struck Erica Forney. Although I do not have a clear memory of the accident, the police tell me I recently finished a cell phone call and may have been distracted...

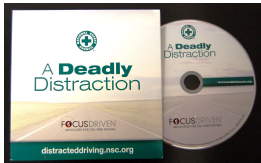
Heather Hurd– Killed on her way to a meeting with a Disney wedding planner when a company truck driver, texting with his employer, rear ended her car and eight others while stopped at a red light.. (January 2008, FL)



"Because of distracted driving and a company insisting that their driver stay in touch with them at all times, I will never dance that special father-daughter dance at a wedding reception." – Russell Hurd

A Deadly Distraction nsc.org/cellphoneDVD

- ▶ Full one hour presentation
- ▶ 25 minute highlights version
- ▶ All proceeds support NSC distracted driving education



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