



Vehicle and Driving Safety



WE ARE THE ARMY'S HOME



Garrison Safety Office (GSO)
U.S. Army Installation Management Command

Pre-discussion Pop Quiz

1. The number 1 cause of vehicle accidents is:

Distracted Driving

2. The number 1 type of vehicle collision is:

Rear-End Collisions

3. Drivers who use hand-held devices are _____ as likely to get into injury-producing crashes.

Four Times

4. More than _____% of drivers admit to blatantly hazardous behavior.

80%

5. You should keep a ____-____ second following distance from the vehicle in front.

3-4

6. T/F – If you go into a skid, turn the wheel in the opposite direction of the skid.

False

7. T/F – If you've had too much to drink, a couple of cups of coffee will sober you up.

False



(Un)Safe Driving Statistics



- Driving may be the most dangerous thing we do each day
 - injured in vehicle every 18 seconds
 - 40,000+ die/yr in vehicle accidents, 110 daily
 - 35% of work-related fatalities involve motor vehicles (Source:BLS)
- Drivers who use hand-held devices are 4 times as likely to get into injury-producing crashes. (Source: Insurance Institute for Highway Safety)
- Using a cell phone while driving (whether it's hand-held *or* hands-free) delays a driver's reactions as much as having a blood alcohol concentration at the legal limit of .08%. (Source: University of Utah)
- 80% of all crashes and 65% of near crashes involve some type of distraction (Virginia Tech Study for the NHTSA)
- Brain activity used while driving decreases by 40% when a driver listens to conversation or music. (Center for Cognitive Brain Imaging at Carnegie Mellon University)
- More than 80% of drivers admit to blatantly hazardous behavior.:
changing clothes, steering with a knee, painting nails, even shaving



Distractions

What is Distracted Driving?

“any non-driving activity a person engages in that has the potential to distract him or her from the primary task of driving and increase the risk of crashing.”

Driving is a skill that requires your *focused* attention to safely control the vehicle and respond to events happening around you. Distractions are anything that takes your attention off the primary task of driving.



Distractions

There are 3 primary types of distractions:



Visual Distractions: Anything that takes your eyes off the road.



Manual Distractions: Anything that takes your hands off the steering wheel.



Cognitive Distractions: Anything that takes your mind off driving.

All distractions can be dangerous and life threatening; ***texting*** is one of the most dangerous because it involves all three types of distractions.



Distractions can lead to Risky Driving Behaviors

Other distractive activities include:

- Using a cell phone
- Eating and drinking
- Talking to passengers
- Grooming
- Reading, including map
- Using PDA or navigation system
- Watching a video
- Changing the radio station, CD, Mp3 player or other device
- Children and pets



Risky Behaviors – do you contribute?

Behavior Admitted	% of Drivers	Behavior Admitted	% of Drivers
Speeding	71	Carrying an unbelted passenger	23
Eating	59	Failing to properly maintain the vehicle	17
Using a cell phone	37	Reading	14
Running a red or yellow light	30	Driving aggressively	13
Not wearing a seat belt	28	Driving while drowsy	10
Failing to signal	26	Changing lanes without clear vision	7

Source: *National Traffic Safety*



Leading Causes of Collisions

Most frequent causes of accidents

- **Distractions!** Inattention to detail...#1 cause of accidents in America
- Speeding
- Following too closely
- Unsafe lane changes
- Driving too fast for conditions
- Failure to yield right-of-way
- DUI



Other contributing factors

- Road Conditions – weather related & physical
- Vehicle Maintenance – tire tread/pressure, brakes, head/tail lights

Rear-end Collisions are the leading type of vehicle accident

- ✓ Maintain a minimal 3-second following distance to react safely
- ✓ Breaking distance is 3-12X longer in poor weather conditions

Decrease Distractions & Drive Defensively

Being an Undistracted and Defensive Driver is the safest way to drive
😊

When drivers are undistracted, they are able to stay *focused* in the roadway and are *aware* of behaviors of *other drivers* on the road. These drivers drive defensively, pay attention, and expect the unexpected.

Defensive Driving is "driving to save lives, time, and money, in spite of the conditions around you and the actions of others." (National Safety Council & ANSI Z15.1 Safe Practices for Motor Vehicle Operations)



Safe Driving Precautions

Tips to Follow



10 Driver Safety Tips that Avoid Accidents

(Source: How Stuff Works)

✓ Avoid Distractions

✓ Keep your Vehicle Maintained

✓ Practice Defensive Driving

✓ Don't Speed

✓ Be Aware/Anticipate Others

✓ Wear your Seatbelts

Actions

✓ Don't Follow Too Closely

✓ Don't Drive Drowsy

✓ Be Extra Cautious in Poor

✓ Don't Drink and Drive

Conditions



Safe Driving Precautions

Safety Soup—Acronyms



BEFORE YOU "START UP" YOUR CAR:

- S**ecure loose objects
- T**urn off your cell phone
- A**llow enough travel time
- R**ead your fuel and fluid levels
- T**ake a moment to check the tire pressure
- U**se seat belts. Every person. Every time.
- P**roperly adjust your mirrors

Four 4's For Driving Safety

- Keep **4 Seconds** following distance
- Look **4 Seconds** before changing lanes
- Wait **4 Seconds** before pulling out from a stop sign
- Check **4 Times** to your left & right before pulling into traffic

**KEEP YOUR
EYES MOVING!**

S.A.F.E.R

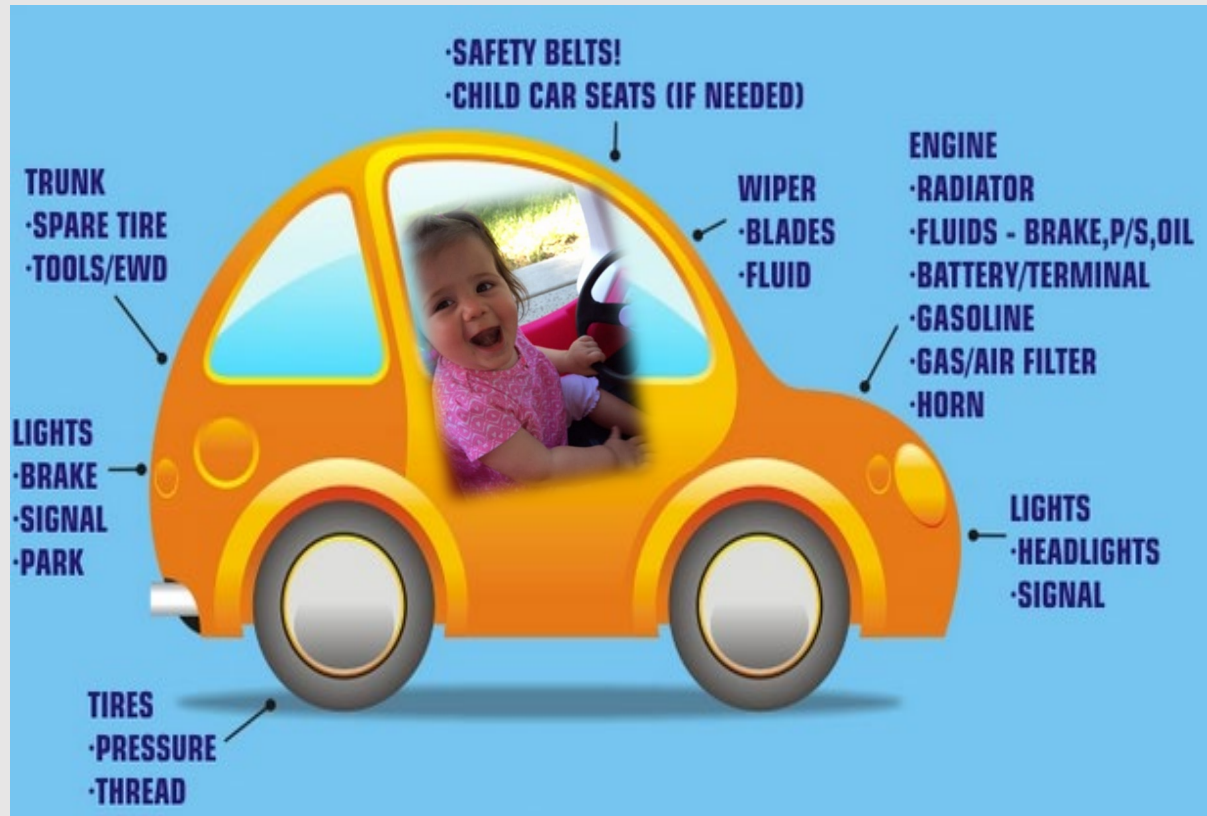
- S** SPACE
- A** ATTITUDE
- F** FORSIGHT
- E** EYESIGHT
- R** RESPONSIBILITY



Safe Driving Precautions

Pre-Trip Inspection & Walk Around

- Pre-trip Walk Around
 - windows, mirrors
 - lights, tires, fluids
- Inside the Vehicle
 - adjust to driver
 - check gauges
 - gas ½ tank full
 - settings in advance
- Prepare mentally
 - distractions minimal
 - mentally ready
 - stress/emotion/attitude
 - drowsiness/fatigue



Safe Driving Precautions

The Bigger Picture

Getting the Big Picture

scan the road ahead

keep your eyes moving

mirrors every 4-5 seconds

3-4 second following distance

Driving Laws

observe speed limits

traffic signs & signals

follow 'rules of the road'

use common sense, and your signal!

Keep Alert & Prepared

minimize distractions

keep your mind on driving & hands on the wheel

drive defensively

yield to aggressors

Keep Cool & Calm

emotions in check

allow enough time

don't provoke, or be angered

report others as appropriate

Drive for Conditions

adjust to road/weather conditions

lights & wipers

stopping distance can be 3-12X longer

do not overdrive your lights at night



Safe Driving Precautions Risk Reduction Checklist



While Driving

- ✓ Visual search: look 10-15 seconds ahead for objects or conditions that could become a threat
- ✓ Have a plan: identify an alternate path of travel, and the level of traction available
- ✓ Never tailgate: always travel with an adequate cushion of space ahead
- ✓ Position your vehicle: with space to the sides and front with an escape route
- ✓ Obey all traffic controls/laws
- ✓ Exercise the right-of-way rules
- ✓ Drive defensively: try to predict the possible actions of other highway users
- ✓ See and be seen: communicate your presence to others
- ✓ Avoid sudden steering and braking movements
- ✓ Avoid distractions and be a considerate driver



Safe Driver Resources: Safety Notes

Mobile phone use: a growing problem of driver distraction



Distracted driving is a serious and growing threat to road safety. With more and more people owning mobile phones, and the rapid introduction of new "in-vehicle" communication systems, this problem is likely to escalate globally in the coming years. However, to date there is insufficient evidence on the risks associated with different sources of distraction, and what interventions can be put into place to reduce their impact upon road traffic crashes.

Mobile phone use:

There are different types of driver distraction, but the use of mobile phones while driving is of primary concern to policy-makers. Evidence suggests that this behaviour is increasing rapidly as a result of the exponential growth in the use of mobile phones more generally in society. Nonetheless, mobile phone use may be considered as one example of the broader problem of driver distraction.

Studies from a number of countries suggest that the proportion of drivers using mobile phones while driving has increased over the past 5–10 years, ranging from 1% to up to 11% at any one moment, with the use of hands-free mobile phones likely to be higher. In many countries the extent of this problem remains unknown, as data on mobile phone use is not routinely collected when a crash occurs.

Effects of mobile phone use on driving behaviour:

Using mobile phones can cause drivers to take their eyes off the road, their hands off the steering wheel, and their minds off the road and the surrounding situation. It is this last type of distraction – known as cognitive distraction – which appears to have the biggest impact

on driving behaviour. Evidence shows that the distraction caused by mobile phones can impair driving performance in a number of ways, e.g. longer reaction times (notably braking reaction time, but also reaction to traffic signals), impaired ability to keep in the correct lane, and shorter following distances. Text messaging also results in considerably reduced driving performance, with young drivers at particular risk of the effects of distraction resulting from this use.

Effects of mobile phone use on crash risk:

Studies suggest that drivers using a mobile phone are approximately four times more likely to be involved in a crash than when a driver does not use a phone. At the time of writing, there is no conclusive evidence to show that hands-free phoning is any safer than hand-held phoning, because of the cognitive distraction involved with both types of phones.

Interventions:

To date, there is little information on the effectiveness of interventions to reduce mobile phone use while driving. As a result, a number of countries are following an approach that has been known to be successful in addressing other key risk factors for road traffic injuries, such as in increasing seat-belt use, or reducing speed and drink-driving. This includes a combination of data collection, legislation, sustained enforcement, and public awareness campaigns. A similar approach that combines these measures is likely to be effective in tackling mobile phone use as well, and has begun in many countries.

Data collection and research

More work is needed to improve the systematic collection of mobile phone use in crash data to assess the extent and distribution of the problem



You are your employer's most valuable asset! The way that you drive says everything about you and your company. Make a positive statement by following these work-related safe driving practices.

Stay Safe

- Use a seat belt at all times – driver and passenger(s).
- Be well-rested before driving.
- Avoid taking medications that make you drowsy.
- Set a realistic goal for the number of miles that you can drive safely each day.
- If you are impaired by alcohol or any drug, do not drive.

Stay Focused

- Driving requires your full attention. Avoid distractions, such as adjusting the radio or other controls, eating or drinking, and talking on the phone.
- Continually search the roadway to be alert to situations requiring quick action.
- Stop about every two hours for a break. Get out of the vehicle to stretch, take a walk, and get refreshed.

Avoid Aggressive Driving

- Keep your cool in traffic!
- Be patient and courteous to other drivers.
- Do not take other drivers' actions personally.
- Reduce your stress by planning your route ahead of time (bring the maps and directions), allowing plenty of travel time, and avoiding crowded roadways and busy driving times.



For more information:
OSHA Occupational
Safety and Health
Administration
www.osha.gov (800) 321-OSHA (6742)

OSHA 3074-60N-06

OSHA FactSheet

Motor Vehicle Safety Facts

The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) in partnership with the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) launched a promotional campaign, "Every Belt – Every Ride" at the National Safety Congress, September 14, 2004 in New Orleans to encourage federal workers to wear seat belts every time they ride in a vehicle on public business.

Costs of Traffic Crashes

- Traffic crashes are the leading cause of on-the-job fatalities in America.¹
- From 1992 to 2001, half the federal workers who died on the job lost their lives in transportation incidents.²
- In Fiscal Year 2003, at least 28 federal workers were killed in job-related traffic crashes and about 8,000 more were injured.³
- Over the past five years, the U.S. government has paid out nearly \$75 million in medical and compensation costs linked to federal employee injuries and deaths related to motor vehicle crashes.⁴

Seat Belts Save Lives

- Using seat belts cuts the risk of death by 45% for people riding in cars and by as much as 60% for those traveling in trucks or SUVs.⁵
- Seat belts save 14,000 lives each year and every state in the nation has a law mandating seat belt use. But 20% of Americans still fail to buckle up.⁶
- Federal employees are required to wear seat belts—every time they travel on public business as passengers or drivers—by Executive Order 13043.

- **Every Belt – Every Ride** seeks to remind federal employees of the life-saving value of seat belts and their obligation to use the safety devices in government vehicles, private cars and taxis, whenever and wherever they go on public business.

References

- ¹ Pegula, Paul S., Fatal Occupational Injuries to Government Workers, 1992-2001, U.S. Department of Labor, Bureau of Labor Statistics, 2004.
- ² Pegula, Paul S., Fatal Occupational Injuries to Government Workers, 1992-2001, U.S. Department of Labor, Bureau of Labor Statistics.
- ³ U.S. Department of Labor, Office of Workers' Compensation Programs. Data prepared by OWCP for OSHA.
- ⁴ U.S. Department of Labor, Office of Workers' Compensation Programs. Data prepared by OWCP for OSHA.
- ⁵ U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, Safety Belt Use in 2003-Use Rates in the States and Territories.
- ⁶ U.S. Department of Transportation, National Highway Traffic Safety Administration, National Occupant Protection Use Survey, June 2003.



Questions?

