

Liberty Mutual Research Institute for Safety

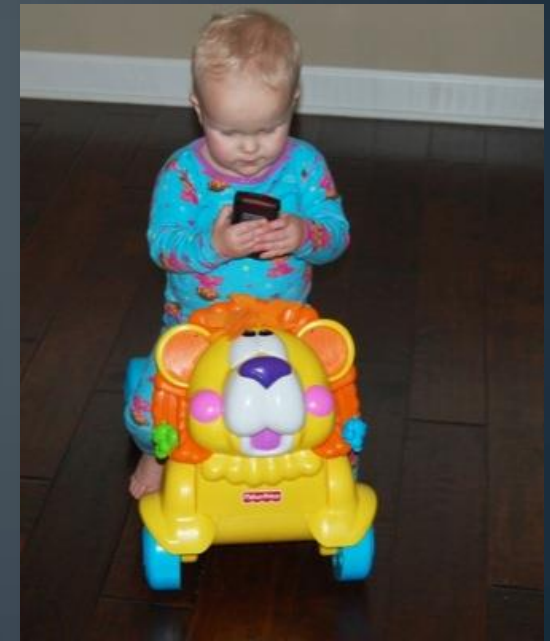
Driven to Distraction



When Do We Begin Learning to Drive?



"Oh no! Not you too."



What Percentage of Men in Poland Remembered Seeing the Sign and the Speed Limit?



What is Distracted Driving?

Any activity that could divert a person's attention away from the primary task of driving. All distractions endanger driver, passenger, and bystander safety.

**Driving is a Full
Time Job!**

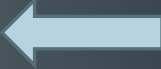
Things That are Distracting

- Eating
- Reading
- Listening
- Applying Makeup
- Programming
- Mobile Device
- Shaving
- Children in the vehicle
- Pets in the vehicle
- Outside the vehicle

Texting is the Worst Form of Distraction

- **Text messaging requires visual, manual, and cognitive attention.**
- **Texting while driving increases crash risk by 23 times (VTTI)**
- **In the USA, the youngest and most inexperienced drivers are most at risk**
- **16% of all distracted driving crashes involving drivers in the USA are under 20 years of age.**
- **Sending or reading a text takes the drivers' eyes off the road for 4.6 seconds.**
- **At 50 km per hour, that is almost exactly 70 meters. (The FIFA minimum length of a soccer field is 90 meters.)**
- **Do you really want to drive for 70 meters as if you are blind?**

European Countries Banning Handheld Cell Phone Use While Driving

- Austria
- Belgium
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Lithuania
- Luxembourg
- Netherlands
- Norway
- Poland 
- Portugal
- Romania
- Russia
- Slovakia
- Slovenia
- Spain
- Switzerland
- Turkey
- Ukraine
- United Kingdom

2011 USA Data

- **387,000 People Injured in Distracted Driving Crashes**
- **3,331 People Killed**

We Know We Should Not Talk on a Mobile Phone While Driving.

Why Do We Do It?

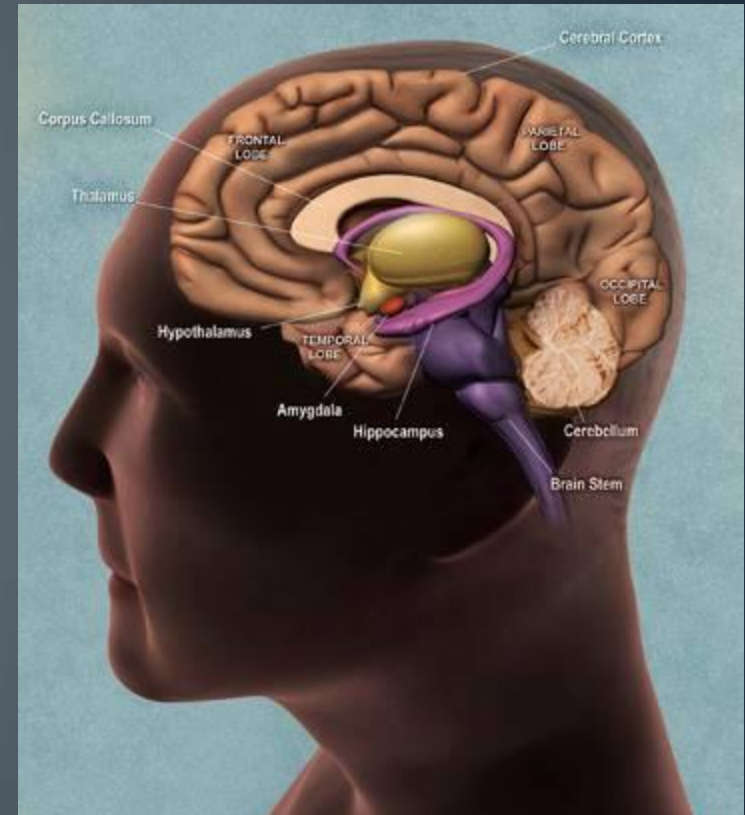
- Because we have done it many times and nothing bad has happened....
- Because we think we are good at multi-tasking....
- Because we think we must be “connected” all the time....
- Because it has become a habit....

Is Our Technology “Programming” Us?

- **Texting and Driving is Not Like Any Public Safety Issue We Have Ever Dealt With**
- **Smartphones Have Programmed Us With New Habits**
- **Powerful Urge to Pull Them Out**

Multitasking: A Brain Myth

- **Human brains do not perform two tasks at same time**
 - **Brain handles tasks sequentially**
 - **Brain switches between one task and another**



Four Multitasking Myths

Myth 1: Drivers can multitask.

Myth 2: Talking to someone on a cell phone is no different from talking to someone in the car.

Myth 3: Hands-free devices eliminate the danger of cell phone use during driving.

Myth 4: Drivers talking on cell phone still have a quicker reaction time than those who are driving under the influence.

Attempting to Multitask Impairs Performance

- We can walk and chew gum safely because it is not a cognitively-demanding task
- But even mobile phone-using pedestrians act unsafely. They are less likely to:
 - Look for traffic before stepping into street
 - Look at traffic while crossing street
 - Notice unusual objects placed along path

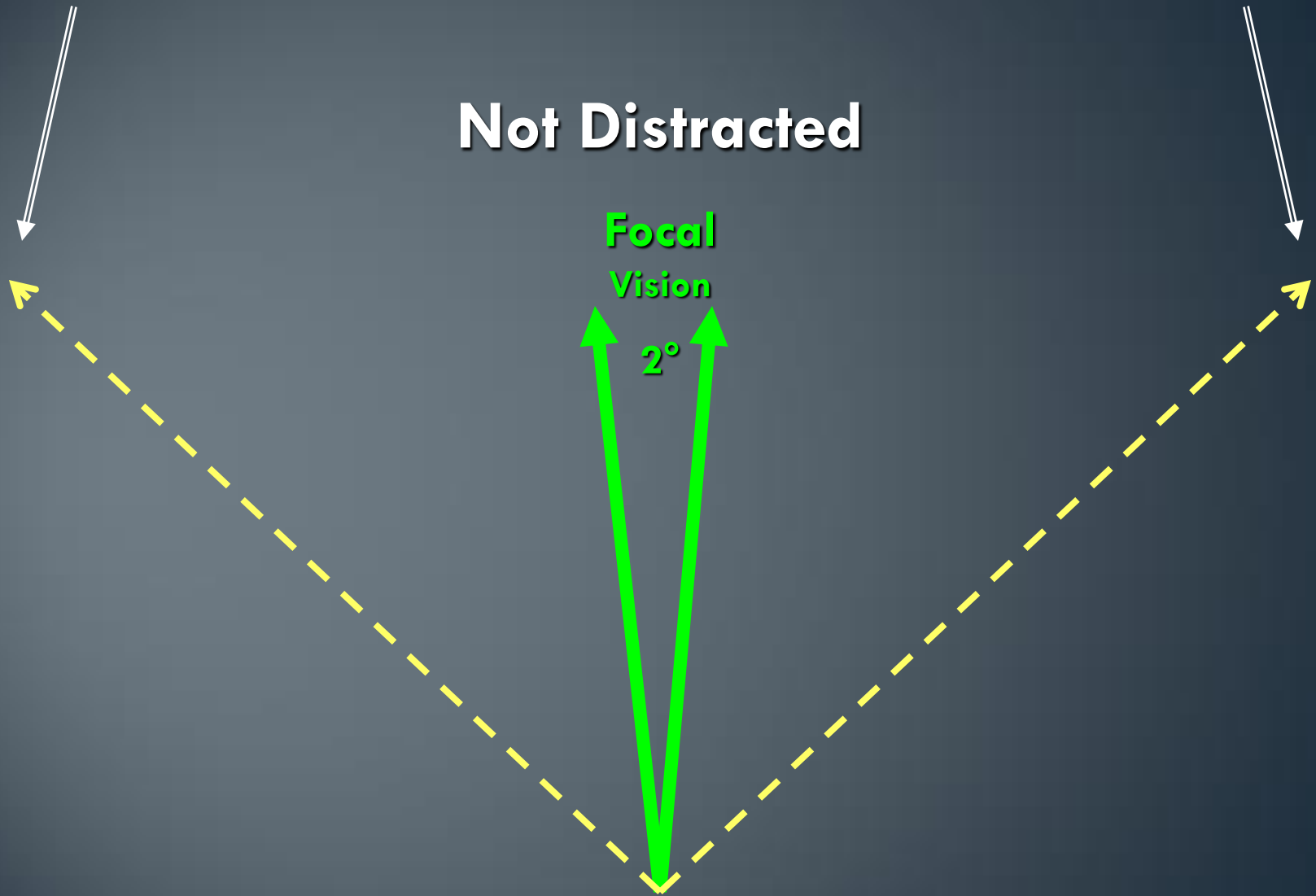
Hands Free is NOT Risk Free!



*Cognitive distraction
is described as
“mind-off-road.”*

“Normal” Ambient Vision

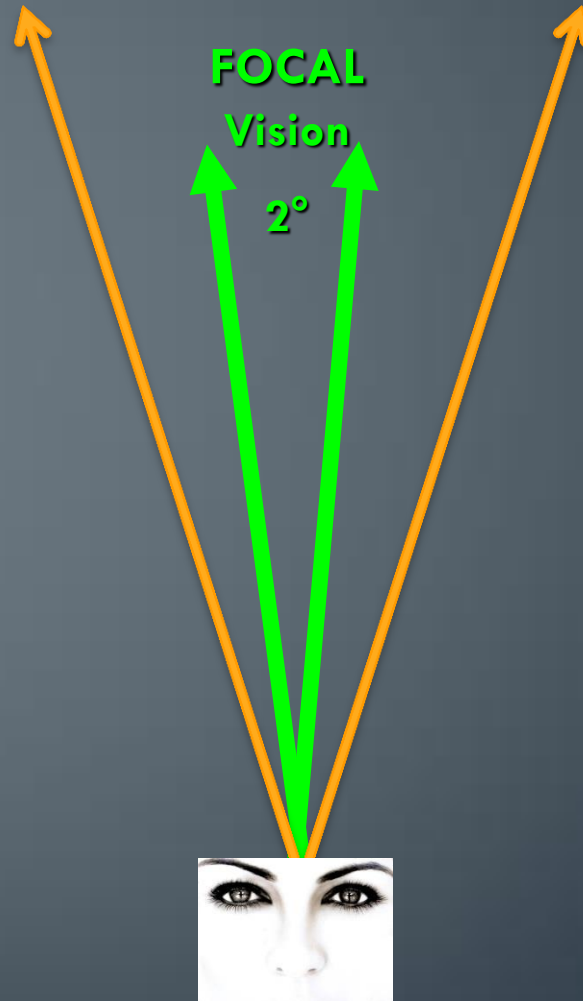
Not Distracted



Talking on Mobile Phone? Texting?

Programming Navigation System? Reading?

“Distracted” Ambient Vision



What About Passenger Conversations?

- **Adult passengers share awareness of driving situation, a safety benefit**
- **Front seat passengers reduce risk of crashing by 38% compared to cell phone conversations**
- **Adults with passengers have lower crash rates than adults without passengers except novice drivers**
- **Australian Researchers – Kids in Car Are 12X More Distracting Than Mobile Phone Use!**

Inattention Blindness is the failure to notice a fully-visible, but unexpected object because attention was engaged on another task, event, or object.

Talking on a mobile phone creates a form of inattention blindness, making drivers less aware of important information in the driving scene.

“Looked but did not see.”

Looking is not the same as seeing.

Some New Technologies Can Mitigate Distraction

- Adaptive Cruise Control

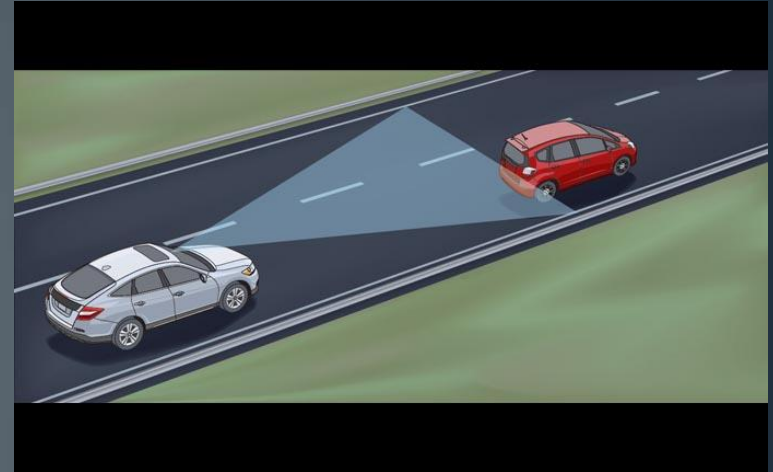


- Volvo's City Safety



Some New Technologies Can Mitigate Distraction

- **Forward Collision Warning**



- **Lane Departure Warning**



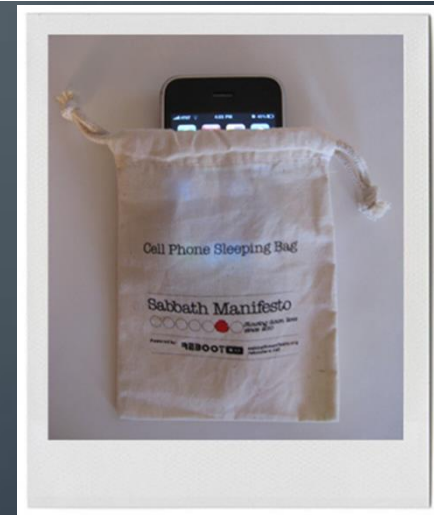
Some New Technologies Can Mitigate Distraction

- **Rear Proximity Sensors**



- **Not Technology – But Effective!**

Mobile Phone Sleeping Bag!



Prevention Steps

- **Education starting early**
- **Company mobile phone bans including texting**
- **Technology**
- **Enforceable Legislation**
- **Enforcement with meaningful penalties**



ExxonMobil's Cell Phone Initiative

ExxonMobil's Research Findings:

- Talking on a mobile phone, regardless of whether the phone is hands-free, results in a braking response time three times longer than that of drunk drivers.
- The risk of a crash while talking on a mobile phone is similar to that of driving with a blood alcohol level at the legal limit. (.08 in the USA!)
- Drivers talking on mobile phones weave through traffic without full awareness of their surroundings and are less likely to maintain safe following distances.
- The risk is less severe in conversations with passengers because those conversations ebb and flow according to conditions. The person on the other end of the phone conversation is unaware of those conditions.

June, 2004: Banned all mobile phone use by ExxonMobil employees and contractors while driving on company business.

Characteristics of Companies With Effective Mobile Device Restrictions

- **Strong company safety culture**
- **Safety policies that protect employees**
- **Managers who demonstrate safe behaviors**
- **Effective internal communications**
- **Knowledge of the consequences of risk taking**

Global Benchmarking Study: 10 “Best” Companies Are Most Likely to:

- *Have a training program available addressing safe mobile phone use.*
- Distribute a fleet safety scorecard on a monthly basis.
- *Review mobile phone records after all crashes.*
- Have a training program available on drowsy driving.
- Include commentary drive completions on a fleet safety scorecard.
- Identify high risk drivers via a point system.

69 Companies - 139 Countries – 526,000 Vehicles – 16,093,440,057 km

Poland – 4,639 Vehicles

Thank You

