# fast facts

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# The Hazards of Using Mobile Devices While Walking

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Doctors and safety experts are increasingly concerned about the risk associated with distraction while walking. What are people so captivated by: responding to or sending text messages, talking on cell phones, or using some type of mobile device with headphones to listen to music while walking? Preoccupied and distracted pedestrians have become common on busy city streets. This loss of situational awareness is similar to that of a distracted driver. The result can be injury or death.



Texting While Crossing the Street

Walking using electronic devices can cause injury or death:

Several recent cases confirm the hazards associated with walking while texting, talking on cell phones, or listening to mobile devices. A teenage girl in New York City fell six feet through an open manhole while texting. She sustained minor injuries but was exposed to raw

sewage. A Florida teen was not so fortunate; he died from injuries

received when he stepped into the path of oncoming cars as he crossed a busy city street while texting. A university exchange student stepped into the path of a bus while jogging and listening to an Ipod in North Carolina. A man sustained a broken finger when he tripped and fell while talking on his cell phone. It is worth noting that at least three people in the Washington D.C. area have died in accidents this past year while wearing headphones. As these few examples indicate, walking while using electronic devices has become a common hazard that needs to be addressed. The American College of Emergency Physicians has issued a warning that texting while walking, driving, biking, or rollerblading can result in serious injury or even death.

# Several studies document electronic devices and associated hazards:

A study conducted by Ohio State University showed that more than 1,000 pedestrians visited emergency rooms in 2008 because they were distracted and tripped, fell, or ran into something while using a cell phone to talk or text. The study showed that young people injured themselves more often than adults. Half of the people injured were under the age of 30, with a quarter of those being between the ages of 16 and 20.

Pedestrians, much like drivers, have always multi-tasked by doing things such as snacking or reading on the move. Researchers are trying to determine what makes distracted walking with mobile devices so different from other types of multitasking. A study conducted at Western Washington University in Bellingham, Washington by psychologist and professor Ira Hyman and his students noted that talking on a cell phone takes a toll on cognition and awareness. The study showed that pedestrians using their cell phones often did not notice objects or people in their path. They also found a type of preoccupation called "inattention blindness," meaning that a person can be looking at an object but fail to register it or process what it is. Adam Gazzaley, a neuroscientist at the University of California, San Francisco explained that cell phone conversations tax auditory functions in the brain as well as visual functions. Using both functions simultaneously prompts the listener to create visual imagery related to the conversation in a way that overrides or obscures the processing of real images.

A 2009 article highlighted cell phone studies conducted by Professor Peter D. Loeb of Rutgers University; William A. Clarke, Bentley University; and Richard Anderson, New Jersey City University. The studies compared the use of cell phones while walking or driving in traffic and pedestrian fatality statistics. The report recommended that governments consider more aggressive policies to reduce cell phone use by both drivers and pedestrians in order to reduce the number of deaths.



Sign: Caution pedestrian texting

Text messaging is a common means of communications, especially among teens. According to CTIA-The Wireless Association, the mobile industry's trade association, approximately 75 billion SMS texts were sent in June 2009. Another study conducted by the University of Birmingham focused on children using cell phones. The study found:

- Students using cell phones took up to 20% longer to cross the street than children who were not using a cell phone;
- Slow-crossing students with cell phones were up to 43% more likely to be hit by a vehicle while crossing the street; and
- Children looked both ways 20% fewer times when crossing the street while using cell phones.

Studies done in several other countries have shown that distracted walking is a hazard that is not unique to the United States. Research conducted in both Japan and England show similar increases in this trend. An experiment was conducted in London's busy Brick Lane area which was identified as the top spot for London's 68,000 texting accidents in 2007. Lampposts and other obstructions were wrapped and padded to minimize injury to pedestrians who texted and talked on cell phones as they walked. Cameras were installed to capture pictures of people running into these obstructions and record incident frequency. The idea could be rolled out to other London texting hotspots if this trial is successful.



Britain's 'safe text' street features padded lamppost

# From life-taking to life-saving effect and back again:

Another study highlights cell phone history. It found that in the late 1980's, cell phones caused a "life-taking effect" among pedestrians, and vehicle occupants. The authors found that fatalities increased even though there were fewer than a million phones, primarily because there were not enough cell phones in use to make a difference in summoning help following an accident. The "life-saving effect" occurred as the volume of phone use increased in the early 1990's. People with cell phones were able to call 911 following accidents which resulted in improved medical response and a drop in fatalities. However, according to the study, the "life-saving effect" has been canceled out by the fact that once the number of cell phones reached about 100 million, the "life-taking effect" of increased accidents and fatalities outweighed the benefits of quick access to 911 services.

# What can be done to reduce this public safety risk?

Several methods should be considered when assessing how to reduce the injuries associated with distracted walking, including legislation, additional research, gathering additional statistics, and public education.

# **Legislation:**

Cell phone usage and texting while driving have been a concern for several years. Research has shown that there are similarities in distraction behind the wheel of a moving vehicle and walking. Several states have passed laws making the use of a cell phone illegal while operating vehicles. "Hands free" devices have become a popular way to continue operating a vehicle while talking on the phone. The Department of Transportation recently issued a regulation that prohibits commercial drivers of trucks and buses from texting while driving.

Fewer laws ban texting while walking. Several states have attempted to restrict the use of electronic devices while walking and met with public outcry. Each of the proposed bills has quietly died before becoming law. Illinois was the first state during the 2007 -2008 session to consider a ban on using a cell phone while crossing a street. Violation of this law was a petty offense and only carried a fine of \$25.00. In 2007, a New



Sign: No Pedestrian Crossing with MP3 player

York State Senator proposed a bill to make it illegal to listen to any kind of portable electronic device, music or video player, cell phone, smart phone, gaming device, etc., while crossing the street in cities such as New York, Albany, and Buffalo. Joggers and bicyclists would have to limit the use of these items to city parks in which no street crossing would be involved. Florida and Wisconsin have proposed similar laws. To date (April 2010), not one piece of legislation has been passed into law.

# Additional studies and better statistics:

Additional research and improved data are needed to determine the impact of distracted walking. Although hospital statistics show that injuries are being reported, researchers suspect that this is just the tip of the iceberg. Some of the injuries may not be reported because they are minor and do not require medical treatment, or people are too embarrassed to seek treatment. Although several research projects have been undertaken, there are no federal entities formally collecting statistics on injuries or deaths involving electronic devices or distracted pedestrians. Further, no uniform reporting system exists between the states to track this information. Mobile electronic devices are increasing in number, and it is anticipated by researchers that injuries are increasing as well.

#### **Public Awareness and Education:**

Increasing public awareness of the hazards associated with distracted walking is the key to preventing these types of accidents. Programs targeting young and middle aged persons are imperative since it appears that these are the persons most affected. In California and Texas, campaigns warning pedestrians to be focused on their safety when walking have emerged. San Francisco adopted a huge media blitz warning walkers about the dangers of headphones while walking. One of the ads asks "Do you want Beethoven to be the last thing you hear?" Joe Farren, a spokesman for CTIA, summed it up by saying, "Unfortunately, you can't legislate common sense. We always encourage people to put safety first even if that means waiting to listen or make a phone call." Keeping in touch is important, but it is more important to be alive to get the message.

#### **Fast Stats**

## Hazards of using mobile devices while walking:

- Cell Phones: Inattention to surroundings or lack of situational awareness
- Texting while walking: Eyes taken away from path of travel and inattention to surroundings
- MP3 players with headphones: Noise-induced hearing loss and inattention to surroundings

#### How to prevent accidents from distracted walking?

- Don't walk, talk and text.
- If you have to talk or text, move to the side of the walkway out of the way of others.
- Never cross or walk in the street while using an electronic device.
- Do not walk with headphones in your ears.
- Keep track of your surroundings.

### Distracted walking statistics, research projects, and experts:

- Western Washington University Ira Hyman, Professor of Psychology
- University of California, San Francisco- Adam Gazzaley, Neuroscientist
- Ohio State University Jack Nasar, professor of City and Regional Planning
- University of Birmingham-Doctoral student Despina Stavrinos, M.S.; under the direction of UAB Psychologist David Schwebel, PhD.; and UAB graduate student Katherine Byington
- American College of Emergency Physicians President, Nicholas Jouriles
- Carnegie Mellon University Unknown researchers
- New York University Richard Weiner, Professor of Environmental Psychology
- Rutgers University Peter D. Loeb, Professor of Economics
- Bentley University William A. Clark
- New Jersey City University Richard Anderson
- Safe Kids USA-A non-profit organization that works to prevent accidental childhood injury

## National Safety Council: Distracted Driving page -

http://www.nsc.org/safetyroad/Distracted Driving/Pages/distracteddriving.aspx



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