

Thanks to many public-safety campaigns, many people know that it is safest to not use a cellphone in any way while operating a motor vehicle. But mounting evidence also shows that it is safest to not talk, text, or surf on a cellphone while running or walking.

SpryFeet.com's "Alert and Alive" pledge campaign asks runners and walkers to pledge to use their cellphones safely while on the road or trail. This document answers several questions about the campaign.

Q. This is news to me. What is the extent of this problem?

Accidents caused by motorists who are distracted by using cellphones keep capturing most of the news headlines -- and rightly so, given that one cellphone-distracted motorist can cause injury or death to several people.

But non-driving-related accident reports about cellphones have appeared in the news, too:

- Cooking noodles: A 13-year-old female burned her abdomen, arms, and legs by trying to text her boyfriend while cooking noodles.
- Riding a horse: A 15-year-old female suffered head and back injuries by falling off her horse while texting.
- Bicycling: A 39-year-old male suffered a head injury after crashing into a tree by trying to text while bicycling.

And there have been several reported accidents specifically related to running or walking while using a cellphone, with users...

- spraining an ankle,
- getting abrasions and bruises,
- getting eye, mouth, and chin injuries,
- getting other serious injuries,
- or even getting killed.

Types of accidents reported include:

- stumbling while texting and walking down a street;
- running into another person;
- tripping down stairs, off curbs, or over something as small as a little crack in the ground;
- crashing into a parked car;
- falling onto the face;
- tripping over a low brick wall and into bushes;
- walking into a sign pole, lamppost, or wall;
- stepping into a manhole;
- stepping off curbs and into traffic;
- walking into a plate-glass window.

Here are some specific accident reports related to cellphone-distracted pedestrians:

- A 16-year-old male suffered a concussion after walking into a telephone pole while texting.
- A 20-something-year-old female suffered a massive and eventually fatal brain injury from being struck squarely by a pickup truck after she stepped off a curb while texting.
- A 25-year-old female suffered a broken fingernail and lightly dinged head after walking into a truck parked in a driveway while talking on a cellphone with her grandmother.
- A 28-year-old male fractured a finger after tripping and falling onto the hand that was gripping the cellphone on which he was talking.
- A 50-something-year-old male was killed as he crossed a road while talking on his cellphone with his wife.
- A 68-year-old male sprained an ankle and a thumb by falling off a porch while walking and talking on a cellphone.
- A male was killed by a car while crossing a street and texting.
- A female who was texting and wearing headphones, apparently

believing that closed crossing gates were for a just-departed train, was hit and killed by another train that she did not notice pulling into the same train station.

- A female aide to President Obama twisted her ankle after stepping off a Chicago curb while texting on her BlackBerry.

Q. Is using a cellphone while running or walking *that* dangerous?

Comprehensive statistics have not been kept for all accidents that have injured or killed runners or walkers because of their use of cellphones.

One reference point that is available comes from the National Highway Traffic Safety Administration (NHTSA) in the USA. NHTSA statistical averages for motor-vehicle accidents involving pedestrians in the USA in 2008 say:

- A pedestrian is killed every two hours.
- A pedestrian is injured every 7.6 minutes.

But these statistics do not tell us what fraction of these accidents were caused by cellphone-distracted pedestrians and do not account for accidents that are not motor-vehicle-related.

Many in the news media have cited a 2008 Ohio State University study that reported that the number of emergency-room (ER) visits due to pedestrian-cellphone accidents (such as walking into a telephone pole while texting or tripping over a curb while talking) doubled from 2006 to 2007 and doubled again from 2007 to 2008.

The increasing popularity of hybrid cars, which are very quiet at slower speeds, poses yet another threat to cellphone-using runners and walkers. According to NHTSA in 2009:

"A vehicle's sound helps pedestrians, especially those who are visually impaired, detect a vehicle's presence and movements. Hybrid electric vehicles emit less sound than vehicles with combustion engines, especially when powered solely by electricity at low speeds. A government study examined the crashes of hybrid cars and similar

nonhybrid cars and found that the percent of crashes involving pedestrians was 40 percent higher for hybrids than for nonhybrids. The likelihood of crashing with a pedestrian was 50 percent higher for hybrids than for nonhybrids in areas where speed limits were 35 mph or slower. When performing certain maneuvers, including slowing, stopping, and backing up, hybrid cars were more than twice as likely to be involved in a crash with a pedestrian compared with nonhybrid cars. These maneuvers typically occur at very low speeds when hybrids operate mostly on electric power."

Some cellphone users claim that sending a text message takes almost no time. But a writer for HerCampus.com timed herself and found that it took her an average of 50 seconds to type a 160-character text message. Granted, most text messages are not this long. But most people send and receive several text messages in a sequence, so a given period of distraction due to texting can last for several minutes.

Some people have reported that they got into accidents -- or into accidents that were worse than necessary -- because they did not want to let go of their expensive cellphones.

And ER physicians have reported that they were more likely to learn from ambulance personnel than from pedestrians themselves that the pedestrians got into accidents because of simultaneously using cellphones, apparently because the ambulance personnel were amused by the stories whereas the pedestrians were embarrassed by the stories.

So the above-reported ER statistics must be the tip of the iceberg, given the embarrassment factor and the fact that many injuries may not be so severe that they would require an emergency-room visit.

Q. What do others say about this problem?

Manufacturer's Disclaimer

The maker of a cellphone holder that attaches to strollers and bicycles has this disclaimer on its website: "Notice: using your phone to talk/text/e-mail while in motion can result in injury."

Psychologist's Blog

Psychology professor Ira Hyman, Ph.D., wrote about what he calls "zombies" -- people who text or talk while walking around -- in his *Psychology Today* "Mental Mishaps" blog on July 2, 2010:

"I'm wondering about a new campaign to promote safe cell phone use. We've made it too easy for cell phone users (both texters and talkers) to stumble through the world."

Public-Safety Campaigns

Based on anecdotal evidence from its member physicians, American College of Emergency Physicians advised the public in 2008:

"Don't text or use a cell phone while engaged in any physical activities that require sustained attention; such activities include walking, biking, boating, rollerblading or even intermittent-contact sports such as baseball, football or soccer."

San Francisco Metropolitan Transit Agency launched an advertising campaign in 2008 to remind pedestrians to tune in to their surroundings.

Research

At University of Illinois, Urbana-Champaign, human-factors psychologist Art Kramer, Ph.D., and experimental psychologist Mark Neider, Ph.D., gave volunteers walking on a manual treadmill (one that moves only when the person walks) 30 seconds to cross a busy virtual street.

- Each participant had to cross the virtual street three times:
 - once with no distractions;
 - once while listening to an MP3 player; and
 - once while holding a cellphone conversation.

- Holding a cellphone conversation, when compared to no distractions or listening to music,
 - made participants take 25% longer to cross the virtual street,
 - led to participants being more likely to be run over by a virtual car, and
 - seemed to cause participants to miss more crossing opportunities that were safe.

Trade Organizations

Consumer Electronics Association (CEA) at this writing on its "Digital Tips" website has excellent advice on safely using earphones and on "Safe Driving" but not on "Safe Walking or Running" with cellphones.

Unfortunately, the wireless trade group CTIA is MIA (missing in action) today about the dangers of cellphone use while running or walking:

- Its BeSmartWireless.com site, which targets children, parents, and educators, says nothing about this problem.
- Its CTIA.org "Policy Topics" page lists "Safe Driving" but not "Safe Walking/Running" or anything similar.
- The "Wireless Phones and Health" page and the "Wireless Safety Tips" page at CTIA.org have nothing about the dangers of cellphone use while walking or running.
- A spokesman for CTIA reportedly told National Public Radio, "I think we're in a lot of trouble if we have to give people advice on how to use or not use wireless when walking down the street."

Wikipedia

This free online encyclopedia today has an extensive "Texting while driving" article but no equivalent "Texting while walking" or "Texting while running" article.

Q. Why is it dangerous to use a cellphone while running or walking?

Situation Awareness

When you begin to text or surf while running or walking, you shift your visual focus from your environment to your cellphone and become nearly or completely oblivious to people and things around you -- a loss of what psychologists call *situation awareness*, in other words.

Inattention Blindness

When you talk on a cellphone while running or walking, you can look at something in your environment but fail to register or recognize it because of what psychologists call *inattention blindness*.

Six Degrees of Focus

The "visual field" test tells an optometrist or ophthalmologist the extent to which you can detect objects as they enter your peripheral vision -- both horizontally and vertically. A horizontal peripheral field of vision equal to 180 degrees is a "full" field of vision. Governments require that motorists have a horizontal peripheral field of vision of at least a good fraction of that -- say, 120 to 140 degrees -- to qualify for a driver license. Japanese ninjas, who were masterful at cloaking themselves from detection, took advantage of the fact that this can shrink to as little as 6 degrees when the target of their attack focused intently on something. No one would walk down a street with their eyes closed, but these 6 degrees tell us that this is essentially what someone is doing when texting or surfing with a cellphone while walking or running.

Active versus Passive

Listening to music is much more passive than is conversation, which requires comprehension and response, so it can be easier to tune out a song than it can be to tune out someone on the other end of a cellphone call.

Escape

When the environment demands that you turn your attention to it, "escape" from listening to music is psychologically easier than is escape from a cellphone call because the former involves no risk that you will hurt someone's feelings.

What Sound?

Compared with talking on a cellphone while running or walking, listening to music while running or walking can have a greater risk of muffling environmental sounds because the latter is often accomplished with two earphones and a relatively loud earpiece volume whereas the former is usually accomplished with one earpiece and a quieter volume. But many music listeners know about this greater risk of muffling and take actions (such as using a single earphone or turning down the volume) to reduce the risk, whereas many cellphone users do not appreciate how concentrating on a conversation can cause them to "tune out" any environmental sounds, including sounds that indicate danger.

Compelling Distractions

Electronic devices such as cellphones provide more compelling distractions than do older distractions such as reading or snacking, given that many electronic devices often require constant interaction, which lead the user to believe that he or she is more productive by interacting with it.

Multitasking Is a Myth

You have 2.25 to 3 seconds to step out of the way of a vehicle moving 40 MPH that you notice one-half block away from you in the U.S., given the typical U.S. range of 15 to 20 city blocks per mile. But a study published in *Neuron* on July 16, 2009, seems to have debunked the claim that people can multitask by showing that people who believe that they are becoming better at multitasking are actually becoming faster at switching between two different tasks. So, unless you have become a true master at switching between the task of looking out for oncoming traffic and the task of using your cellphone, you may have very little time after detecting an oncoming vehicle to avoid getting hit by it.

How Did I Get Here?

Organizers of group training programs for marathons and half marathons know that runners and walkers trip even when distraction-free. These accidental trips occur because the tasks of running and walking are mostly unconscious -- just as driving for most adults is -- which explains how you can run or walk for miles in conversation with a training partner and arrive with no strong sense of how you reached your destination.

Q. How have solutions to this problem fallen short?

Infrastructure

Solution Attempt: Everyone knows that most motorists will slow down wherever flashing lights (such as from a police car) are present. Taking advantage of this, Finland has embedded red and green lights in the sidewalks at some intersections so as to catch the eyes of people composing and reading text messages while approaching those intersections.

How This Falls Short: This solution is not omnipresent, nor does it address many other dangers of walking or running while talking, texting, or surfing.

Legal

Solution Attempts: Recognizing that cellphone use outside of a motor vehicle, if not while running or walking, could be dangerous, the legislature in the state of Virginia had a proposal to ban texting while bicycling. And the legislatures in the states of Illinois and New York had proposals to limit pedestrians' use of electronic devices, going as far as considering misdemeanor fines.

How These Fall Short: These solution attempts only work with sufficient police to enforce the laws.

Software

Solution Attempts: Software programs for Android and Apple cellphones display live video of the street ahead of the user while the user is texting.

How These Fall Short: These solution attempts assume that users will keep as much focus on the background as on the text messages that they are composing. But this assumption has not been validated.

Solution Attempt: Voice-recognition software on some cellphones converts speech to text, which lets users dictate their outgoing text messages.

How This Falls Short: This solution attempt lets the user watch where he or she is going while dictating an outgoing text message. But the user must still look away from where he or she is walking or running to read incoming text messages, and this still creates a distraction through the dictation process.

Q. How does a pledge campaign help?

AT&T in March, 2009, launched its "TXTNG & DRIVNG ... IT CAN WAIT" advertising campaign to warn younger cellphone users about the dangers of texting while driving. Verizon Wireless in October, 2009, launched a similar "Don't Text and Drive" advertising campaign.

But advertising alone may not be enough. In the final analysis, personal responsibility is what matters most for solving this problem.

Oprah Winfrey recognized this when she started in January, 2009, her "No Phone Zone" pledge campaign for motorists, which has sponsorship endorsement from Sprint and has garnered hundreds of thousands of pledges. The SpryFeet.com "Alert and Alive" pledge campaign takes a similar approach for runners and walkers.

Q. Who is behind the "Alert and Alive" pledge campaign?

Dr. Kirk Mahoney, founder of SpryFeet.com, is behind this campaign. Kirk is the author of *123 Cellphone Tips for Runners and Walkers*, which is the definitive book about how runners and walkers can use cellphones with courtesy, technological savvy, and -- most important -- safety. For example, "DO take your cellphone with you on each walk or run." in the book is tip #1, which Kirk explains in detail.

Kirk founded SpryFeet.com to provide practical research for runners and

walkers. After noticing that alarming numbers of runners and walkers were using cellphones unsafely while on the road or trail, he decided to launch this "Alert and Alive" campaign to draw attention to the problem.

Q. Why are there different levels to the pledge?

Kirk recognizes that not everyone will be comfortable with committing to everything listed in the pledge. And he appreciates that even a small commitment could prevent an injury or save a life. So he set up three pledge levels to accommodate a pledge-taker's degree of commitment.

- **Level 1** - I will not text or surf while running or walking.
- **Level 2** - I will not text or surf while running or walking and will only talk on my cellphone in a hands-free way when doing so.
- **Level 3** - I will not talk, text, or surf while running or walking. If I must use my cellphone while running or walking, then I will move to a secure location and stop moving before doing so.

Q. Who is affected, if I do not take the pledge?

You certainly can use your cellphone responsibly without taking the "Alert and Alive" pledge. You might even argue that the only person who can be hurt by using a cellphone while running or walking is the cellphone user. But, if you get injured or killed because you were distracted by your cellphone while running or walking, then this could adversely affect your family members and friends, as well as another runner or walker, a motorist whose vehicle hits you, an emergency responder, or any of many other strangers.

Q. What should I do next?

1. Decide NOW to take personal responsibility for safe use of your cellphone on the road or trail, not only for your own health and life but also for friends, family members, and total strangers.
2. Go to <http://www.spryfeet.com/alertandalive/>.
3. Take the "Alert and Alive" pledge.

Q. How can I keep my pledge?

Here are two ways to help you to keep your "Alert and Alive" pledge:

1. Trade cellphones with your running or walking partner. Promise one another not to undo the exchange until you two have finished your workout or to move to a secure location and stop moving before answering an incoming call.
2. Buy and read *123 Cellphone Tips for Runners and Walkers* to become more informed.

Questions and Answers about SpryFeet.com's "Alert and Alive" Pledge Campaign

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