

People walk slower, swerve when texting while distracted

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Credit: Vera Kratochvil/public domain

Texting while walking and being cognitively distracted may significantly affect the way a person walks, resulting in a more cautious gait, according to a study published July 29, 2015 in the open-access journal *PLOS ONE* led by Dr. Conrad Earnest of Texas A&M University and colleagues from the University of Bath, UK.



Walkers regularly text on a mobile phone while navigating city sidewalks, but little research has been done to examine how the walkers' gait may change when texting. The authors of this study examined the effect of texting and walking while being cognitively distracted and negotiating curbs and other common pedestrian obstacles.

Thirty participants, 18-50 years-old, completed three randomized, walking tasks through an obstacle course while: (1) walking normally, (2) texting and walking, and (3) texting and walking while being cognitively distracted with a math test. The researchers analyzed the walkers gait using a 3-dimensional motion analysis system and modeled each task to assess differences between each trial.

The authors found that participants took significantly longer to complete the course while texting and being cognitively distracted compared to just walking. Texting while being cognitively distracted also increased obstacle clearance, step frequency, and decreased ability to walk in a straight line. The authors of the study suggest participants when faced with cognitive challenges decrease their walking speed to avoid accidents. The authors suggest this study group may be more familiar with walking while interacting with mobile phones and that further research may be needed to examine older participants, who may be at a greater risk of tripping with such walking deviations.

More information: Licence S, Smith R, McGuigan MP, Earnest CP (2015) Gait Pattern Alterations during Walking, Texting and Walking and Texting during Cognitively Distractive Tasks while Negotiating Common Pedestrian Obstacles. *PLOS ONE* 10(7): e0133281. DOI: 10.1371/journal.pone.0133281

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