

What Works and Doesn't Work for Preventing Distracted Driving?*

SUPPORT USE	CAUTION	AVOID	DISCRETION
<p style="text-align: center;">Good Quality Study</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Positive Impact on Prevention</p> <hr/> <p>There is strong evidence based on research and evaluation that these strategies have been shown to reduce texting while driving.</p>	<p style="text-align: center;">Quality of Study has Limitations</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Impact on Prevention Inconclusive</p> <hr/> <p>These strategies need additional research and evaluation.</p>	<p style="text-align: center;">Low Quality Study</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Negative Impact on Prevention</p> <hr/> <p>The study design is poor. These strategies need additional research and evaluation.</p>	<p style="text-align: center;">Very Low Quality Study or No Evaluation</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Unknown Impact on Prevention</p> <hr/> <p>The study design is very poor and need well-designed evaluation or no evaluation was conducted.</p>
<ul style="list-style-type: none"> • Steering Teens Safe^{1,2} • Front Windshield Sticker Reminder³ 	<ul style="list-style-type: none"> • Center line rumble strips⁴ • Road shoulder rumble strips⁵ • Cell phone bans⁵ 	<ul style="list-style-type: none"> • No studies were identified 	<ul style="list-style-type: none"> • High-visibility enforcement of cell phone laws with public awareness campaign^{8,9} • State all-driver distracted driving laws and high school students' texting while driving behavior¹⁰ • Distracted driving law enforcement¹¹ • Center line rumble strips¹² • Computer-delivered driver safety behavior screening and intervention program initiated during an emergency department visit¹³ • High School/Hospital Educational Program¹⁴ • Public Service Announcements¹⁵ • Reviews from Expert Panels¹⁶ • Systems Approach to the Management of Distracted Driving¹⁷
<p style="text-align: center;">Good Quality Study</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Negative Impact on Prevention</p> <hr/> <p>High quality study methods with negative results</p>	<p style="text-align: center;">Moderate Quality Study</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Limited Negative Impact on Prevention</p> <hr/> <p>Moderate quality study methods with limited negative results</p>	<p style="text-align: center;">Low Quality Study</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Poor Negative Impact on Prevention</p> <hr/> <p>Low quality study methods – poor negative results</p>	<p style="text-align: center;">Quality Study or No Evaluation</p> <p style="text-align: center;">AND</p> <p style="text-align: center;">Unknown Impact on Prevention</p> <hr/> <p>The study was designed as a quality study; however the evidence is inconclusive or no evaluation was conducted.</p>
<ul style="list-style-type: none"> • Exposure to trauma room with motivational counseling/intervention⁷ 	<ul style="list-style-type: none"> • No studies were identified 	<ul style="list-style-type: none"> • No studies were identified 	<ul style="list-style-type: none"> • Laws prohibiting all cell phone use¹⁸ • Cell Phone Filter/Blocker^{19,20}

No published studies were identified that had evaluated the following activities:

- Pledges not to text while driving
- Information on distracted driving as a required component of driver education
- Communication and informational campaigns about the dangers of texting while driving

*Prepared by the Injury Prevention Committee of the Texas Governor's EMS & Trauma Advisory Council, 2017. Committee members conducted an extensive literature review among peer-reviewed journals, as well as government and injury prevention websites. The Nursing Levels of Evidence from "Evidence-based practice in nursing & healthcare: a guide to best practice" by Bernadette M. Melnyk and Ellen Fineout-Overholt. 2005, were used to determine criteria for evidence-based strategies/interventions. It was determined that strategies/interventions in Levels I-II showed strong evidence based on research and evaluation. If evaluation of strategies/interventions in those levels were effective in reducing distracted driving, they were placed in the High or Green category. If an article was in Levels III-V, the strategies/interventions were placed in the Moderate or Yellow category. If the evaluation of strategies/interventions in Levels I-IV showed the strategy/intervention was ineffective or harmful, it was placed in the Low or Red category. Studies/interventions in Levels V-VII and activities described on websites that: 1) had not been published in a peer-reviewed journal or 2) did not provide evaluation results, were placed in the Very Low or Gray category. There is a companion document available on the GETAC website at _____ that provides detailed information and references for each article reviewed.

References

1. Peek-Asa C, Cavanaugh JE, Yang J, Chande V, Young T, Ramirez M. Steering teens safe: a randomized trial of a parent-based intervention to improve safe teen driving. BMC Public Health 2014;14:777.DOI: 10.1186/1471-2458-14-777. Published: 31 July 2014
2. Ramirez, Marizen; Yang, Jingzhen; Young, Tracy; Roth, Lisa; Garinger, Anne; Snetselaar, Linda; Peek-Asa, Corinne. Implementation Evaluation of "Steering Teens Safe": Engaging Parents to Deliver a New Parent-Based Teen Driving Intervention to Their Teens. Health Education & Behavior, v40 n4 p426-434 Aug 2013.
3. Rohl A, Eriksson S, Metcalf D. Evaluating the Effectiveness of a Front Windshield Sticker Reminder in Reducing Texting while Driving in Young Adults. Cureus. 2016 Jul; 8(7): e691. Published online 2016 Jul 14. doi: 10.7759/cureus.691
4. Sayed, T., P. deLeur, J. Pump. "Impact of Rumble Strips on Collision Reduction on BC Highways: A Comprehensive Before and After Safety Study." TRB 89th Annual Meeting Compendium of Papers CD-ROM. Washington, D.C. 2010.
5. Griffith M. Safety evaluation of rolled-in continuous shoulder rumble strips installed on freeways. Transportation Research Record. 1999;1665: 28-34
6. Lim, S. & Chi, J. Cellphone bans and fatal motor vehicle crash rates in the United States J Public Health Pol (2013) 34: 197. doi:10.1057/jphp.2013.3
7. Nirenberg T1, Baird J, Longabaugh R, Mello MJ. Motivational counseling reduces future police charges in court referred youth Accid Anal Prev. 2013 Apr;53:89-99. doi: 10.1016/j.aap.2013.01.006. Epub 2013 Jan 16.
8. Chaundhary NK, Connolly J, Tison J, Solomon M, & Elliott K. (2015, January Evaluation of the NHTSA distracted driving high-visibility enforcement demonstration projects in California and Delaware. (Report No. DOT HS812108). Washington, DC. National Highway Traffic Safety Administration.
9. Cosgrove L, Chaundhary N, Reagon I. "Four High-Visibility Enforcement Demonstration Waves in Connecticut and New York Reduce Hand-Held Phone Use," NHTSA 2011
10. Qiao N, Bell TM. State all-driver distracted driving laws and high school students' texting while driving behavior. Traffic Injury Prevention. Volume 17, 2016; Issue 1. Published online: 04 June 2015.
11. Cosgrove, L, Chaundhary, N., & Roberts, S. (2010). High Visibility Enforcement Demonstration Programs in Connecticut and New York Reduce Hand-Held Phone Use. DOT HS 811 376. Washington, DC: National Highway Traffic Safety Administration.
12. Persaud, B.N., Retting, R.A., & Lyon, C.A. (2004). Crash reduction following installation of centerline rumble strips on rural two-lane roads. Accident analysis & Prevention 36(6), 1073
13. Murphy M, Smith L, Palma A, Lounsbury D, Bijur P, Chambers P, Gallagher EJ. Feasibility of a computer-delivered driver safety behavior screening and intervention program initiated during an emergency department visit. Traffic Inj Prev. 2013;14(1):39-45. doi: 10.1080/15389588.2012.690545.
14. Unni P, Morrow SE, Shultz BL, Tian TT. A pilot hospital-school educational program to address teen motor vehicle safety. J Trauma Acute Care Surg. 2013 Oct;75(4 Suppl 3):S285-9. doi: 10.1097/TA.0b013e31828f9aa4.
15. Steadman M1, Chao MS, Strong JT, Maxwell M, West JH. C U L8ter: YouTube distracted driving PSAs use of behavior change theory. Am J Health Behav. 2014 Jan;38(1):3-12. doi: 10.5993/AJHB.38.1.1.
16. Sherin KM, Lowe AL, Harvey BJ, Leiva DF, Malik A, Matthews S, Suh R; Preventing texting while driving: a statement of the American College of Preventive Medicine. Am J Prev Med. 2014 Nov;47(5):681-8. doi: 10.1016/j.amepre.2014.07.004. Epub 2014 Sep 10.
17. Young KL, Salmon PM. Sharing the responsibility for driver distraction across road transport systems: A systems approach to the management of distracted driving. Accident Analysis & Prevention; Volume 74, January 2015, Pages 350–359.
18. Rudisill TM, Zhu M. The association between states texting regulations and the prevalence of texting while driving among U.S. high school students Ann Epidem 2015; 25(12) 888-93
19. Funkhouser, D., & Sayer, J. R. (2013, December). Cell phone filter/blocker technology field test. (Report No. DOT HS 811 863). Washington, DC: National Highway Traffic Safety Administration.
20. Creaser JI, Edwards CJ, Morris NL, Donath M. Are cellular phone blocking applications effective for novice teen drivers? J Safety Res. 2015 Sept;54:75-8. Doi: 10.1016/j.jsr.2015.06.014. Epub 2015 July 29.