

EVIDENCE-BASED TRAFFIC ENGINEERING MEASURES TO REDUCE PEDESTRIAN MOTOR VEHICLE COLLISIONS: A REVIEW

Rahul Rathore*

* Faculty of Engineering,

Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, INDIA

Email id: rahul.engineering@tmu.ac.in

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ABSTRACT

We offer a short critical analysis and assessment of engineering changes to the built environment that may decrease pedestrian injury risk. We conducted our research using the Transportation Research Information Services database to look for studies on engineering countermeasures that had been published in the scientific literature. We divided countermeasures into three categories: speed regulation, pedestrian separation from vehicles, and methods to improve pedestrian visibility and conspicuity. We identified the methods and settings that have the highest potential for preventing crashes. Our evaluation found that altering the built environment may significantly decrease the probability of pedestrian–vehicle collisions, with an emphasis on research with acceptable methodological methods.

KEYWORDS: *Controlled Intersection, Roadways, Traffic Engineering, Vehicle Collision, Vehicle Accident.*

REFERENCES:

1. Reilly JS, Walter MA. Consumer product aspiration and ingestion in children: Analysis of emergency room reports to the national electronic injury surveillance system. *Ann. Otol. Rhinol. Laryngol.*, 1992 Sep;101(9):739-41.
 2. Frye RE. National Electronic Injury Surveillance System (NEISS) and hazard analysis. 1994, doi: 10.1520/stp12803s.
 3. Casey JT, Bjurlin MA, Cheng EY. Pediatric genital injury: an analysis of the National Electronic Injury Surveillance System. *Urology.* 2013;82(5):1125–1130.
 4. Hefflin BJ, Gross TP, Schroeder TJ. The National Electronic Injury Surveillance System (NEISS) and Medical Devices in Medical Device Epidemiology and Surveillance, 2007.
 5. Kerr ZY, Collins CL, Comstock RD. Epidemiology of bowling-related injuries presenting to US emergency departments, 1990-2008. *Clin. Pediatr. (Phila).*, 2011 Aug; 50(8):738-46.
 6. Heinsimer KR, Nelson NG, Roberts KJ., McKenzie LB. Water tubing-related injuries treated in US emergency departments, 1991-2009. *J. Phys. Act. Heal.*, 2013, doi: 10.1123/jpah.10.2.151.
 7. McDonald A. Expansion of the National Electronic Injury Surveillance System. *Inj. Control Saf. Promot.*, 2000, doi: 10.1076/icsp.7.4.267.7405.
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8. Ummat S, Kirby RL. Nonfatal wheelchair-related accidents reported to the National Electronic Injury Surveillance System,. Am. J. Phys. Med. Rehabil., 1994 Jun;73(3):163-7.
9. Mack KA, Gilchrist J, Ballesteros MF. Bunk bed-related injuries sustained by young children treated in emergency departments in the United States, 2001-2004, National Electronic Injury Surveillance System - All injury program. Inj. Prev., 2007 Apr;13(2):137-40.
10. Svider PF, Chen M, Burchhardt D, O'Brien PS, Shkoukani MA, Zuliani GF, Folbe AJ. The vicious cycle. Otolaryngol. - Head Neck Surg. (United States), 2016;154(2):371-376.