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HOW WELL DO CHILDREN ESTIMATE THE TIME IT TAKES TO CROSS A ROAD? A RISK FACTOR FOR PEDESTRIAN INJURY

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Background Pedestrian injuries are the sixth leading cause of death in US children ages 6–9. Several developmental components contribute to pedestrian safety, including cognitive and perceptual skills which are needed to attend to traffic, process perceived

information, and decide when to cross safely. One underexplored aspect of cognitive-perceptual skill is children's judgments of the time needed to traverse a street. Pedestrians must accurately estimate the time needed to cross the street in order to judge whether a traffic gap offers sufficient time for safe crossing.

Aims/Objective/Purpose This study examined accuracy of children's crossing time estimates.

Methods As part of a pedestrian safety study, 194 participants ages 6–9 completed two tasks. First, they walked a distance of 25 feet as if they were crossing a real street (four trials). Second, while next to a crosswalk adjacent to an elementary school, participants estimated the time it would take to cross the 32.5-foot street (five trials). Walking time was adjusted for the 32.5-foot distance, and trial averages were used for analyses.

Results/Outcomes Children estimated they could cross the street faster ($M=5.32$ s, $SD=3.14$) than they actually walked ($M=7.28$, $SD=1.37$), $t(192)=-8.28$, $p<.001$. Age was not correlated to actual or estimated walking speeds (all $r_s<.10$).

Significance/Contribution to the Field Results indicate that underestimation of the time needed to cross streets may contribute to child pedestrian injuries. Consideration of children's ability to judge the time required to cross streets accurately may be a valuable addition to the development of effective pedestrian safety training programmes.