

## Accidents Involving Pedestrians Walking along with/against Traffic: An Evaluation of Crash Characteristics and Injuries

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**Abstract :** Using A1 A2 police-reported accident data for years 2003-2010 in Taiwan, the paper examines anatomic injuries and crash characteristics specific to pedestrians in “facing traffic” and “back to traffic” crashes. There were 2768 and 7558 accidents involving pedestrians walking along with/against traffic respectively. Injuries sustained by pedestrians and crash characteristics in these two crash types were compared with those in other crash types (nearside crash, nearside dart-out crash, offside crash, offside dart-out crash). Main findings include that “back to traffic” crashes resulted in more severe injuries, and pedestrians in “back to traffic” crashes had increased head, neck, and spine injuries than those in other crash types; and there was an elevated risk of head injuries in unlit darkness and NBU (non-built-up) roadways. Several crash features (e.g. unlit darkness, overtaking maneuvers, phone use by pedestrians and drivers, intoxicated drivers) appear to be over-involved in “back to traffic” crashes. The implications of the research findings regarding pedestrian/driver education, enforcement, and remedial engineering design are discussed.

**Keywords :** pedestrian accident, crash characteristics, injury, facing traffic, back to traffic

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