



Engineering Sciences Section – 2005

C1 Injury Pattern Analysis in Fatal Traffic Crash Investigation

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After attending this presentation, attendees will understand some principles of crash investigation, the necessary elements for the application of Injury Pattern Analysis, characteristic injury patterns of certain types of crashes, and an example of a practical application of Injury Pattern Analysis. This presentation will impact the forensic community and/or humanity by serving as a key aspect of fatal crash investigation as it can augment traditional means of investigation in a systematized format via interdisciplinary communication and collaboration.

Reconstruction of a fatal crash can be augmented, in certain circumstances, by information gleaned from the postmortem evaluation. Further improvement of the scope and accuracy of an investigation can result from evaluation of the injuries of crash survivors, taking into account the conformity of individual vehicle interiors as well as the movement of the occupants during the crash.

The term "Injury Pattern Analysis (IPA)" is proposed as a description of a fatal crash investigation technique that utilizes accident investigation, and reconstruction techniques, occupant kinematics, postmortem records, hospital and healthcare provider acute injury records, and other evidence as an adjunct to the investigation of homicides resulting from fatal crashes.

The authors present a case study in IPA as an example of the practical application of the technique. It is recommended that medicolegal death investigators become familiar with the principles of IPA.

Crash, Fatal, Investigation