Discontinuity in injury potential as a function of insult angle

SAAMI SHAIBANI, Instruction Methods, Academics Advanced Scholarship — Vehicle collisions with low severity ($\Delta v < 5$ m/s, say) are associated with low injury (AIS$\leq 1$)$[1]$ as a rule; however, even a slight change in pdof (principal direction of force) can have a dramatic change in injury outcome. In one particular case, the insult pdof was primarily along positive x (forward, arising from a rear impact) with a small component along positive z (downward, arising from the striking vehicle being higher than the struck). The somewhat unusual nature of the latter was responsible for a mechanism of injury to the lower extremities that would not otherwise have occurred. This research employs the well-established methodology$[2-4]$, where physics is foremost over medicine and engineering. Patient symptoms were identified solely from this emphasis on higher science, which gives a rigorous analysis that cannot be achieved with the secondary fields on their own[e.g. 5-8]. Only then can serious consequences, including 15 h in a trauma bay (AIS$\gg 1$), be explained with specificity. $[1]$ aaam.org/abbreviated-injury-scale-ais/; $[2]$ Announcer, 26 (4), 42 (1996); $[3]$ BAPS, 42, 2289 (1997); $[4]$ Announcer, 27 (4), 100 (1997); $[5]$ *.2005.MAR.U21.6; $[6]$ *.2006.MAR.Y26.12; $[7]$ *.2006.MAR.C1.102; $[8]$ *.2007.MAR.K1.2 (* meetings.aps.org/link/BAPS)