Abstract Submitted
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Role of Physique on Probability of Injury to the Low Back SAAMI J. SHAIBANI, Independent Modeling, Algorithms & Analytical Studies (IMAAS) — In a related study of the response of the upper and lower cervical spine[1], there was some correlation between a change in physique and the potential for injury to the neck during automotive events. A similar undertaking in this research on the lumbar spine and sacral spine revealed a much more marked effect, namely an increase in injury potential to the low back when weight is increased. Although there were some exceptions to this, the overall trend was distinct. This is perhaps to be expected when one considers that most additional weight at the same height tends to be located in the center or lower torso. However, it is first time in any comparable analysis of injury causation that there has been a more noticeable pattern for the low back than the neck. The latter was more pronounced with environment geometry, as seen when the height of the seat back was varied. Such changeability again reinforces previous findings that injury outcomes for individual patients cannot always be predicted by what happens in general. 1. http://meetings.aps.org/link/BAPS.2007.MAR.K1.2 (Role of physique on probability of injury to the neck).

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