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The Influence of Environment Geometry on Injury Outcome: II. Lumbosacral Spine SAAMI J. SHAIBANI, Independent Modeling, Algorithms & Analytical Studies (IMAAS) — It is widely agreed that the type of motor vehicle in which an occupant is situated can sometimes make a noticeable difference in injury potential even when the insult suffered is the same. A simple example might be the same occupant being in a sports car as opposed to a minivan, but such anecdotal experience does not usually help to distinguish the effect of particular features within the same category of vehicle. Other research has addressed the role of environment geometry in neck injury,[1] and this paper adopts the same methodology for the low back. The heights, lengths and angles of the seat cushion and seat back (including head rest) are all examined as descriptors of passenger compartment geometry, and any changes caused by these are determined. Useful results are feasible with the large patient population available even if clear patterns in these are not always present. As in earlier work, there is still the option of finding individual outcomes on a case-by-case basis.
[1] The influence of environment geometry on injury outcome: I. Cervical spine, Bull Am Phys Soc, in press (2006).

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