ABSTRACT

THESIS: Pressure Distribution In Ergonomic Car Seats

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The purpose of the present study was to assess the pressure distribution responses to three hour seating bouts in a standard car seat condition compared to a Comfort Motion Technology (CMT) car seat condition. Twelve males participated in the study. Subjects came in for two separate sessions no more than one week apart. Pressure distribution on the backrest and seat pan was assessed in a three hour seating bout. Pressure variables associated with increased seating comfort were collected across six distinct 28 minute cycles and then averaged across these six cycles. The pressure variables were contact area, peak contact pressure, and force. The CMT car seat condition exhibited greater back contact area (p= .003) and less back peak pressure (p=.003) than the standard car seat condition. In addition, the CMT car seat condition had greater seat peak pressure (p< .001) and greater back force (p< .001) than the standard car seat condition. In conclusion, the CMT car seat condition is more comfortable than the standard car seat condition.