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Oral Presentation

Securing Children in Cars from the Trauma Biomechanical Point of View. A Historical and Global Perspective

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Abstract

Since the 1960 Child Safety Systems in cars have been developed. The 3 point safety belt for adults rated as one of the 10 most Important inventions for mankind, the seat belt has saved more than 1.5 Million lives. As well children have to be secured in a car but the 3 point belt is designed for adults. A 27 kg child is forced forward with 1.200 kg at 48 kph impact velocity. Here vulnerable body regions of 0-12 year old children need to be protected. Different body regions (head, spine, thorax and abdomen) will be discussed. The presentation will outline the effects of securing children in Germany, Sweden and other countries. Countermeasures to prevent paraplegia, head trauma and thoracic and abdominal injuries will be presented. The effect should result in a significant reduction of child fatalities and the reduction of severe and long term injuries in car accidents with children in the future.

Keywords: Mankind, Seat Belt, Thorax, Abdomen, Paraplegia.

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