

**Objectives** The goal of this study is to characterise cyclist-related injuries according to motor vehicle involvement for adults versus children.

**Methods** A retrospective study was carried using data from 11 trauma centres in the Israeli National Trauma Registry (2001–2007). Injury mechanism was classified according to motor vehicle involvement and differences in injury characteristics were assessed for adults (18+ years) versus children (1–17 years).

**Results** A total of 5529 patients were hospitalised for bicycle injuries, of which 1765 were adults and 3764 were children. Thirty percent (n=1662) of all bicycle injuries involved motor vehicle and adults were 1.3 times more likely to be involved in a motor vehicle-related bicycle accident than children (95% CI 1.16 to 1.49). Injury characteristics and hospital resource utilisation differed substantially by age group. Cyclists struck by a motor vehicle presented with multiple injuries, utilised more hospital resources and had worse outcomes than those not involved with motor vehicles. The interaction effect between motor vehicle involvement and age was significant for torso injuries and imaging tests.

**Conclusions** Injury characteristics, hospital resource utilisation and health-related outcomes for bicycle injuries are highly dependent on patient's age and mechanism of injury. Effect modification of motor vehicle involvement by age may reflect physician's attitudes towards paediatric imaging.

## 0420 BICYCLE INJURIES: A MATTER OF MECHANISM AND AGE

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**Introduction** Bicycle riding is a popular form of recreation with positive health and environmental consequences. These road users are vulnerable to serious injuries, especially when motor vehicles are involved.