

# Seat belt injuries could signal more serious trauma in children

**Ill-fitting seatbelts raise the risk of serious injury to children involved in car accidents. And seat belt injuries should alert physicians to look for signs of more serious consequences, particularly spinal cord injury, which is not always immediately apparent.**

“Unless physicians are diligent, spinal-cord injuries are hard to diagnose in children. In the event of a car accident, seat belt injuries such as bruising and tenderness should warrant a search for other injuries, including spinal-cord injury, vertebral fractures and intra-abdominal injuries. If spinal-cord injury is missed or not diagnosed early, the consequences can be devastating,” said Harsh Grewal, M.D., in a report published in August issue of the Journal of Spinal Cord Medicine.

Grewal, a pediatric surgeon at Temple University School of Medicine and Hospital, and his colleagues reviewed 10 years’ worth of medical literature on motor vehicle accidents and children. They found that children involved in car accidents who were inappropriately seatbelted were at higher risk for “seat-belt syndrome,” a complex of injuries to the spine and abdomen. Consequently, when healthcare professionals see bruising or seat belt marks in pediatric car accident victims, they should have a high degree of suspicion about more serious injury.

Car accidents, the most common cause of injury and death in children, are also the most common cause of spinal cord injury in children and adolescents. Boys are more affected than girls, and the incidence increases with age. Children who are 4 to 8 years old are most likely to be using ill-fitting seatbelts or restraints.

Grewal recommends that an evaluation of a child or adolescent car-accident victim include a complete work-up for vertebral, spinal cord and intra-abdominal injuries. In addition to bruises or marks from the seat belt, clues of more serious injury include abdominal and/or spine tenderness, and neurological deficits. Ideal treatment of possible spinal-cord injury starts at the scene of the accident with proper stabilization and transportation of the victims. If a child with a spinal fracture has not been stabilized properly, movement can injure more tissue.

In general, seat belts and safety restraints should be adjusted according to age and weight.

Source: Temple University

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