

NAON Position Statement

Safe Transportation of Children with Orthopaedic Conditions

Issue

Motor vehicle crashes are the leading cause of death for ages 3 to 6 and 8 to 14 (National Center for Health Statistics). The use of safety restraints in motor vehicles has been shown to reduce injuries and fatalities in child passengers.

Children with special health care needs including, but not limited to, orthopaedic conditions requiring body cast immobilization should be restrained in safety restraints which meet Federal Motor Vehicle Safety Standards (FMVSS).

Position

The National Association of Orthopaedic Nurses supports the use of proper safety restraints for all children being transported in motor vehicles, including those children with special health care needs.

Background

In 2007, there were a total of 41,059 traffic fatalities in the United States. The 14-and-younger age group accounted for 4 percent (1,670) of those traffic fatalities. Children age 12 and under are safest when properly buckled in the back seat of a motor vehicle during every transport. Children in rear-facing child seats should not be placed in the front seat of vehicles equipped with passenger-side air bags. The impact of a deploying air bag striking a rear-facing child seat could result in injury to the child.

Oftentimes, conventional restraints are appropriate for children with medical needs. Not only can they provide suitable positioning and protection, but also they are easier to obtain, less expensive, and more convenient to use than many of the specialized restraints. However, if a conventional restraint does not meet a child's positioning needs and proper use of the restraint is comprised, then a specialized restraint should be considered.

There are a number of specialized safety restraints produced by several different manufacturers that provide protection to children with medical needs in the event of a crash. NAON does not endorse any particular brand of special needs car safety seat and restraint.

Car beds are restraints that allow infants who are unable to be transported in an upright position to travel lying down. Although there are variations in design, all of the beds must be used with the infant's head facing toward the center of the vehicle, away from any side or door.

Infants and toddlers wearing hip casts may require special safety seats. These seats have a shallow seating surface and low sides in order to accommodate hip casts. Some seat systems also have a wedge positioning system for children in casts to assist in achieving a snug fit in the seat.

For children two years or older who must be transported lying down, a special vest is available. In order to use the vest, a child must be able to fit lengthwise on a vehicle bench seat. Two

separate seat belts may be required for installation.

The use of special safety restraints in motor vehicles is not limited to infants and toddlers. Older children with orthopaedic conditions and those with spinal injuries or decreased head, neck, or trunk control may also require special safety restraints. There are a number of restraints available that can accommodate children up to 164 pounds.

Ambulance transportation should be used when safety restraints meeting FMVSS are not available for children with orthopaedic conditions requiring body cast immobilization. However, the use of ambulance transport should be weighed carefully as it is costly and will limit the patient and family's options for outings.

Families should be informed of basic guidelines for selecting the restraint, positioning children in the restraint, and securing safety restraints in the transporting vehicle. Being properly informed may reduce parents' and care-givers' use of substandard products, makeshift restraint systems or their decision not to use a safety restraint at all.

Orthopaedic nurses caring for children with special transportation needs should be knowledgeable of age-, size-, and condition-appropriate devices available. Orthopaedic nurses should be leaders in promoting the use of safety restraints for all children, thereby reducing morbidity and mortality in motor vehicle crashes.

References

National Highway Traffic Safety Administration. Traffic Safety Facts, 2007 Data: Children. Washington, DC:NHTSA, 2007.

Stout, J.D., Bandy, P., Feller, N., Stroup, K.B., & Bull, M.J. (1992). Transportation resources for pediatric orthopaedic clients [Electronic version] . *Orthopaedic Nursing, 11*, 26-30.

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Links

<http://www-nrd.nhtsa.dot.gov/Pubs/810987.PDF>

<http://www.aap.org/family/SpecialCarSeatsChart.pdf>