

Transportation of Children with Special Health Care Needs

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Rationale for Child Passenger Safety

Why?

Motor vehicle crashes are the leading cause of death in children in the United States

- In 2020, 607 child passengers ages 12 and younger were killed in motor vehicle crashes in the United States
- More than 63,000 were injured
- Of the children who were killed in a crash, 38% were not buckled up

When installed and used correctly, child safety restraint systems decrease the risk of fatal injury by:

- 71% among infants (under 1 year old)
- 54% among toddlers (1 to 4 years old)
- 45% among children 4 to 8 years of age

When transported on a school bus, using a Child Safety Restraint System on a bench seat provides the best protection in a crash and should be selected for every child who can be transferred out of a wheelchair for travel.

- Approximately 300,000 students travel seated in wheelchairs on school buses in the United States daily

Children with special needs should not be exempt from the requirements of each state's laws regarding child restraint and seat belt use.

Definition of a Child with Special Health Care Needs

Children and Youth with Special Health Care Needs (CYSHCN)

"Children with special health care needs are those who have, or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally."

General Guidance

American Academy of Pediatrics Policy Statement

This guidance may be used to: Increase awareness, and help caregivers and providers be aware of the resources available

NHTSA - National Highway Traffic Safety Administration

federal agency responsible for establishing and monitoring safety criteria for child safety seats and vehicles

FEDERAL MOTOR VEHICLE SAFETY STANDARD

FMVSS 213

Governs performance and some design criteria for child restraint systems for children who weigh up to 80 pounds.

FMVSS 225

Sets requirements for the location and strength of lower anchors and top tether anchors in vehicles.

Who?

Respiratory System

Passengers with risk of airway obstruction and those with a tracheostomy

- Craniofacial abnormalities
- Apnea
- Premature Infants
- Children with a tracheostomy requiring life support equipment

Muscular System

Passengers with muscle tone abnormalities

- Cerebral Palsy or acquired brain injury
- Spasticity
- Hypotonia
- Down Syndrome
- Myelomeningocele (Spina Bifida)
- Spinal Muscular Atrophy (SMA)
- Paralysis or absent sensation
- Hydrocephaly

Skeletal System

Passengers with Orthopedic Challenges

- Casts: Upper and Lower Extremity
- Children with Range of Motion limitations
- Osteogenesis Imperfecta
- Scoliosis
- Halo Traction
- Developmental Dysplasia of the Hip (DDH)
- Achondroplasia

Digestive System

Passengers with gastrointestinal issues

- Reflux
- Feeding tubes
- Challenges due to client weight
- Overweight/Underweight

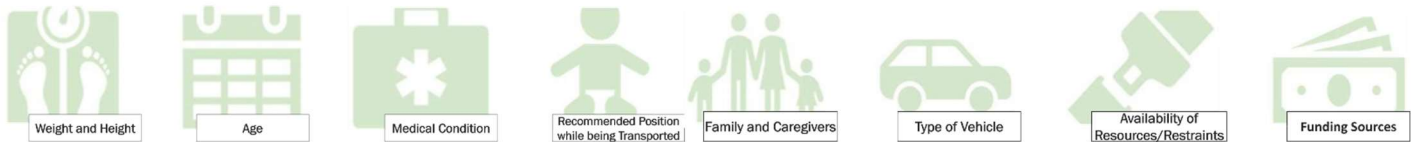
Challenging Behavior

Passengers with challenging behavior

- Impulsive or aggressive

- “Escape artist”
- Unbuckles other passengers
- Sensitive to textures and sounds

Considerations for Restraint System



Types of Restraint Systems

Product types brochure: National Center for the Safe Transportation of Children with Special Health Care Needs

<https://preventinjury.pediatrics.iu.edu/brochures/>

Car Beds

Car Seats for Hip Casts

Large Medical Seats

Adaptive Booster Seats

Vests and Harnesses

Case Study:

Multidisciplinary Transportation Program

Hospital

- Possibly activated prior to hospital admission
- Part of discharge planning
- Includes physician, OT and/or PT, CPST, family and caregivers
- Should maintain an inventory of necessary child passenger restraints including custom medical transportation products

School

- Includes OT and/or PT, CPST, school nurse, transportation staff, family and caregivers
- Requires planning, selection and procedures
- Individual Family Service Plan (IFSP) 0 to 3 years; Individualized Education Program (IEP) 3 through 21 years

Community

- Pediatricians are encouraged to advocate within their local community to promote policies that provide all children access to appropriate and correctly used Child Safety Seats and occupant protection systems for children with special needs.
- Pediatricians serve as a resource for information to legislators, policy makers, law enforcement professionals as well as school officials.
- Local Safe Kids programs

Transportation in Wheelchair

- Secure the wheelchair independent of the occupant
- Secure and protect the rider using Occupant Restraint Belt (these are different than postural or positioning belts and harnesses)
- Occupant (and wheelchair) should be forward facing
- While these standards are voluntary, it is strongly recommended that you use tie downs, restraint belts and wheelchairs that meet current safety standards.

WC18- Compliant

- Wheelchair Tie Down and Occupant Restraint Systems (WTORS)

$$\begin{array}{c} \textbf{Wheelchair Tie Down} \\ \text{(4-point strap-type system OR docking system)} \\ + \\ \textbf{Occupant Restraint Systems, 3 point} \\ \text{(Vehicle lap and shoulder belt OR WC anchored belt with effective interface with vehicle shoulder harness)} \\ = \\ \textbf{WTORS} \end{array}$$

WC19- Compliant

- Wheelchair (frames and seating) used as seats in motor vehicles

WC20- Compliant

- Seating Systems
 - Seating that passes WC 20 are intended for use on a WC 19 frame

Resources:

www.safekids.org

www.saferidenews.com

National Child Passenger Safety Certification <https://cert.safekids.org>

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