Child Passenger Safety Policy Statement

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Additionally, a child’s immature spine is responsible for supporting a much larger proportion of body weight than an adult’s more mature spine. According to Thomas Turnbull of the Swedish National Road and Transport Research Institute, a baby’s head comprises 20% of its body weight, while in an adult the head weighs 12% of total body weight. Severe and fatal injuries from motor vehicle accidents facing children in car seats reduce severe injuries by 92%.” (Rear Facing Thor. WayForward) Therefore in proportion of need to body only adds to the need to safeguard the spine column.
All infants and toddlers should ride in a rear-facing car safety seat (CSS) until they are 2 years of age or until they reach the highest weight or height allowed by the manufacturer of their CSS.

All children 2 years or older, or those younger than 2 years who have outgrown the rear-facing weight or height limit for their CSS, should use a forward-facing CSS with a harness for as long as possible, up to the highest weight or height allowed by the manufacturer of their CSS.
American Academy of Pediatrics 2018 Policy Revision

- All infants and toddlers should ride in a rear-facing car safety seat (CSS) as long as possible, until they reach the highest weight or height allowed by their CSS’s manufacturer.

- All children who have outgrown the rear-facing weight or height limit for their CSS should use a forward-facing CSS with a harness for as long as possible, up to the highest weight or height allowed by their CSS’s manufacturer.
Why the 2011 revision?

• Original recommendation (pre-2011)
  • Rear-facing until age 1 OR 20 lbs.
  • Rear-facing until age 1 AND 20 lbs.

• Evidence base
  • Original evidence compared CRS to unrestrained
  • By 2011, growing body of literature comparing CRS to seat belted children
    • US and Sweden
    • Biomechanical laboratory and real world
Why the 2018 Revision?

- New evidence
  - Re-analysis of key US real world study
  - McMurry, et al. *Inj Prev* 2018;24(1)55-59
    - Very low (< 1%) risk of injury to children in both RFCSS and FFCSS
    - Insufficient sample to identify difference in rear vs. forward risk with statistical significance
  - Through 2015, limited number of 12-23 month olds in RFCSS
2018 Revision

• No other major changes to 2011 policy statement
• Updated data in support of recommendations:
  • Rear facing CSS attachments to vehicle
  • Optimizing the rear seat environment for different ages and restraint systems
  • Tether use and effectiveness
  • Effectiveness of booster seats and booster laws
Resources

• New Policy Statement
  • Pediatrics, November 2018, Vol 142(5):e20182460

• Car Safety Seats: 2019 Guide for Families

• Car Safety Seat Check List
  • Order at: https://shop.aap.org/patient_education

• www.Healthychildren.org
Transportation of Children
With Special Health Care Needs
AAP Guidelines

Lifesavers Conference 2019
Louisville, KY

April 1, 2019
Acknowledgements

- American Academy of Pediatrics
- Denise Donaldson, CPST-I, Safe Ride News Publications
- University of Michigan Transportation Research Institute
- Marilyn J. Bull, MD Riley Hospital for Children
- Judith Talty, Automotive Safety Program, Indiana University School of Medicine
- Ben Hoffman, MD, and Dennis Durbin, American Academy of Pediatrics
Disclosure statement

- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CEU activity.

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Objectives

- Review the Clinical Policy Statement from the American Academy of Pediatrics on Transportation of Children with Special Health Care Needs (CSHCN)
- Engaging stakeholders and implementing transportation plan
- Review vehicle restraints and conditions for transportation of CSHCN
- Resources for technicians
Policy statement—general guidelines

• When possible use a standard child restraint

• All infants, toddlers, and small children should ride rear-facing as long as possible and progress through AAP recommendations as the child grows
• When a standard CSS is not appropriate, possible options include large medical car seats, special needs belt-positioning booster seat, or wheelchair
• Consult a CPST with special health care needs training
• Include transportation in IEP discussions
Policy statement—specific conditions

- Airway obstruction
- Musculoskeletal and muscle tone issues
- Gastrointestinal issues
- Obese or overweight
- Challenging behavioral issues
- Safe transportation of medical equipment
SafeKids resources for CPST

https://www.safekids.org/search?search_api_views_fulltext=special+needs+transport&=Apply
Resources

• National Center for Transportation of Children with Special Health Care Needs, Riley Hospital for Children, Indiana University School of Medicine (1-800-755-0912)
  – www.preventinjury.org/special-needs

• Rehabilitation Engineering Research Center on Wheelchair Transportation Safety. University of Michigan Transportation Research Institute.
  – A detailed brochure on the use of a wheelchair as a transportation device on the bus or the family vehicle is available at: http://www.travelsafer.org.

• SafeKids Worldwide Child Passenger Safety Technician and check special needs box at bottom:
  https://ssl06.cyzap.net/dzapps/dbzap.bin/apps/assess/webmembers/tool
AAP resources for the CPST

HealthyChildren.org

Convertible seats
(Used rear-facing and forward-facing. All seats have a 5-point harness. Seats that “Can Recline Forward-facing” may be an option for children with special needs who have limited head and trunk control. These seats may also be helpful for children who fall asleep on long trips.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Rear-Facing</th>
<th>Forward-Facing</th>
<th>Can Recline</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limits</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Height Limits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety seat back</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When top of head</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reaches top of red line</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below top of car</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety seat back</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Baby Trend

Elite
- 5–22 lb without upper car safety seat back
- Can recline
- $179

Premiere
- 5–22 lb without upper car safety seat back
- Can recline
- $159

Sport
- 5–22 lb without upper car safety seat back
- Can recline
- $129.99

Available at: https://shop.aap.org/car-safety-seats-2019-guide-for-families-50pk-brochure

Questions?

Riley Hospital for Children
Indiana University Health

SCHOOL OF MEDICINE
INDIANA UNIVERSITY
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• Marilyn J. Bull, MD Riley Hospital for Children
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Objectives

• Introduce the Clinical Policy Statement from the American Academy of Pediatrics on School Bus Transportation of Children with Special Health Care Needs (CSHCN)

• Discuss how CPSTs can use this policy in the community
  – Role of the CPST in developing and implementing transportation plans

• Familiarize CPSTs in using vehicle restraints for school bus transportation

• Resources
Principles of safe transportation

• Overarching goal is to transport the child with special needs in the safest and most effective way possible
• Safety of all passengers is essential
• Essential to safe transportation is a well-constructed action plan
It takes a village to transport a child with special needs

Needs advanced thought and planning by a team of the medical home, the school home, and the family home before attending school.

- patient
- caregivers
- physician
- school nurse
- therapists
- school bus driver and aide
- school district representative
- transportation director
- school psychologist
- CPST resource
Communication is essential!

- CSHCN who are entitled to transportation:
  - should have an Individual Transportation Plan as part of the IFSP/IEP document
    - Specifies if a seat belt, child safety restraint system, or wheelchair is recommended.
    - For planning transportation, representatives of school transportation services and other school staff with appropriate knowledge and expertise should be included in the meeting
    - Consult DOE State Transportation Director
  - CPST and OT/PT should inform the parent about including transportation in the IEP
How the AAP guideline be of help?

• Provides recommendations on safe transportation as it relates to a child with a special need.
  – The inclusion of transportation personnel in the development of the IEP
  – The selection of the most appropriate seating system on the bus
  – The training of key personnel for seating, management of emergencies, communication of concerns
Principles for transporting children with special needs

- Infants, toddlers, and preschoolers should always ride in a Child Safety Restraint System (CSRS) on a school bus.

- The best CSRS is the one that:
  - Fits the child (size, age, behavioral development, and medical needs)
  - Fits the school bus seat
  - Used correctly EVERY time (NHTSA)
Appropriate child safety restraint systems

- Conventional car seats (rear/forward facing)
- Large medical seats
  - Consult bus and seat manufacturer
- School bus specific add-on seats
- Travel vests
- Integrated seats for school buses
Sometimes the most appropriate selection is the child’s wheelchair

- Any child who can transfer from the wheelchair should be properly restrained on a school bus seat.
  - Wheelchair and equipment should be properly secured

- Weight recommendations for transfer from wheelchair in policy statement.
Sometimes the most appropriate selection is the child’s wheelchair

- Best practice for proper securement of a child in the wheelchair recommends:
  - Transit option wheelchair
  - Four point tiedown devices or acceptable equivalent
  - Positioning straps as needed
  - Federally approved occupant restraint system
  - Lap boards, trays removed and secured
  - Medical equipment properly secured as per the school bus, wheelchair manufacturers recommendations
Resources for safe transportation of CSHCN


  – http://wc-transportation-safety.umtri.umich.edu/ridesafe-brochure

• Search for CPST with school bus and/or special needs training at https://cert.safekids.org
Resources for safe transportation of CSHCN

- Automotive Safety Program, Riley Hospital for Children, Indiana University Health: http://www.preventinjury.org/Special-Needs

- American Academy of Pediatrics policy statement on school bus transportation of children with special needs, 2018. Available at: https://pediatrics.aappublications.org/content/141/5/e20180513
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