
Challenges in Transporting Children with Special Needs on School buses

Lifesavers, 2017



Riley Hospital for Children
Indiana University Health



SCHOOL OF MEDICINE
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Objectives

- Review basic principles of transportation of Children with Special Health Care Needs (CSHCN)
- Discuss proper restraint choice and use for CSHCN
- Discuss common problems in transporting CSHCN
- Identify resources



Who are children with special needs

- 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. (Ref)



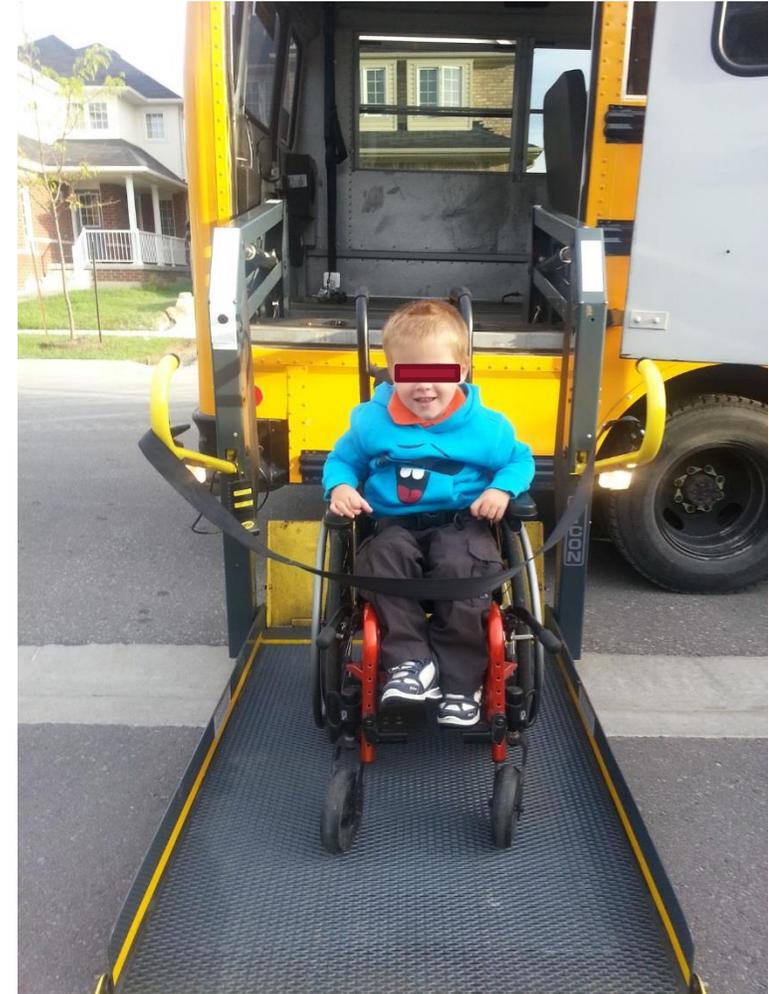
Consider this child...

- Almost 4y girl with spastic quadriplegic cerebral palsy
 - Increased tone in the arms and legs
 - Decreased tone and strength of the neck and trunk
 - Gastrostomy for feeding
 - Incontinent of bowel and bladder
 - Wheelchair for mobility and transport
 - Weight 25 lbs. and 36 in. tall
- Transported by school bus to preschool



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



Principles for transporting children with special needs

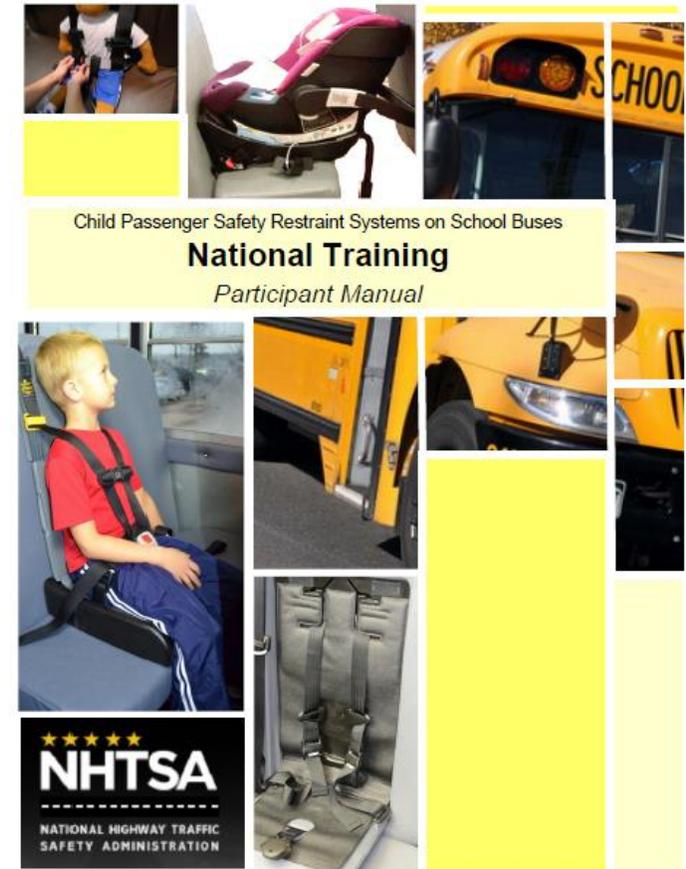
- Infants, toddlers, and preschoolers should always ride in a Child Safety Restraint System (CSRS) on a school bus
- CSRS should be appropriate for weight, height, physical, behavioral, and developmental needs



NHTSA, Child Passenger Safety Restraint Systems on School Buses, National Training Participant Manual. June 2015

Appropriate child safety restraint system

- The best CSRS is the one that:
 - Fits the child (size, age, development, and medical needs)
 - Fits the school bus seat
 - Used correctly EVERY time (NHTSA)
- NHTSA, Child Passenger Safety Restraint Systems on School Buses, National Training Participant Manual. June 2015



Appropriate child safety restraint systems

- Conventional car seats (rear facing, forward facing)
 - Installation requires seat belts that meet FMVSS 208 and 209
 - Next to window, max space 24”
- Large medical seats
 - Consult manufacturer
 - Installation requires seat belts and tether
 - Lose seat behind (if tethered to seat belt)

School bus specific add-on CSRS

- Require seat mounts per manufacturer instructions
 - Fit for child
 - Securement



STAR special needs, IMMI



BESI Pro-Tech

Safety vests/harness for use on school buses

- Travel vests useful for children with behavioral problems
 - Use cam wrap for securing to bus seat
 - Use crotch strap to prevent submarining
 - Follow manufacturers instructions for fitting child



EZ-on vest



BESI universal vest

Integrated seats for school buses



Safeguard, IMMI

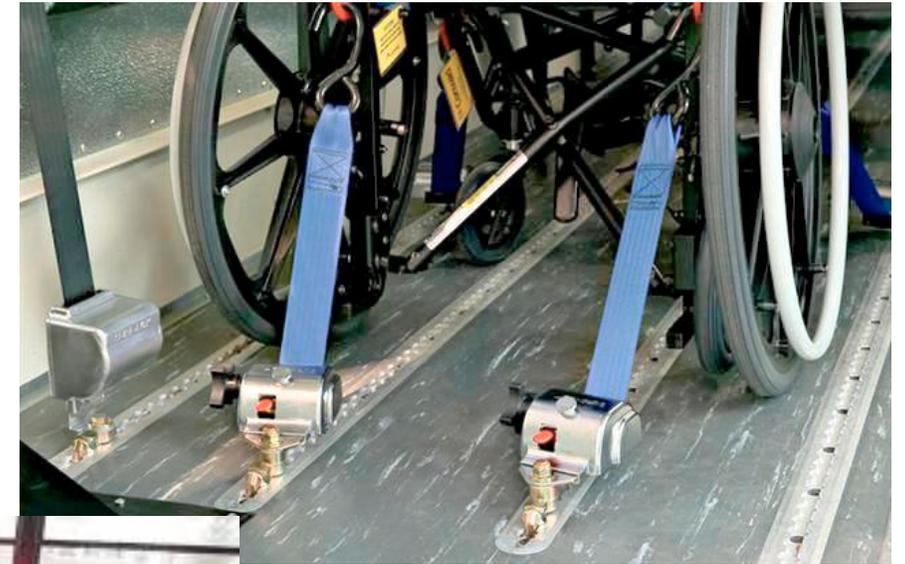


CE White

- Forward-facing CSRS with 5-point harness built into the bus seat
 - Easy shoulder height adjustment
 - Check manufacturer recommendations for maximum height and weight, and storage when not in use
 - Make sure driver and assistants are trained in use of seat

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



Sometimes the most appropriate selection is the child's wheelchair

- Proper securement of a child in the wheelchair requires:
 - 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



Common problems in transporting children with special needs on school buses

- Communication during IEP and other planning meetings
- Understanding the medical, physical, social, and transportation needs of a child with special needs on a school bus
- Using the appropriate child occupant restraint for age, size, development, and medical needs for the child
- Aides on the bus to assist with transfers, positioning, securing, and monitoring child on the bus
- Preparing for possible emergencies on the bus route and how to obtain timely assistance, including evacuation

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



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
- Specially trained CPSTs
- school bus driver and aide
- school district representative
- transportation director
- school leadership
- school psychologist



Susan Jordan, Principal,
Amy Beverland Elementary School,
January 26, 2016.



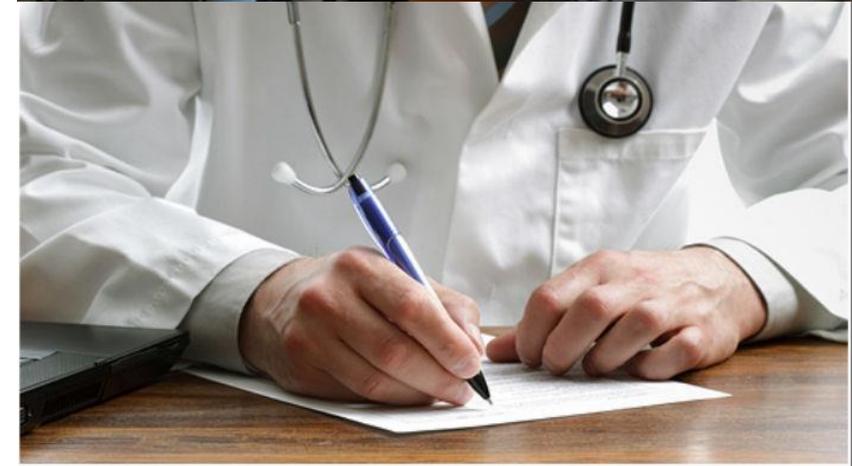
Assistance on the school bus

- Aides on the bus can assist with loading and unloading, transfers, positioning, securing, and monitoring child on the bus
 - May need special training for specific conditions
 - Provide rescue medications or actions for acute exacerbations of medical conditions
 - Help identify when Emergency Medical Services (EMS) are needed and provide support until EMS arrives



On-board emergencies—action plans are important!

- Every child with special needs must have an emergency action plan
- Should be a part of the Individualized Education Plan (IEP)
 - Acknowledge the medical issues (behavioral, breathing problems, seizures, bowel or bladder, mobility)
 - Anticipate emergencies (asthma attack, seizure, bowel or bladder accident, behavioral meltdown, or a fall)
 - Health care professionals need to provide a written plan for medical emergencies



“The devil is in the details!”—developing action plans

Diabetes Medical Management Plan (DMMP)

This plan should be completed by the student's personal diabetes health care team, including the parents/guardian. It should be reviewed with relevant school staff and copies should be kept in a place that can be accessed easily by the school nurse, trained diabetes personnel, and other authorized personnel.

Date of Plan: _____ This plan is valid for the current school year: _____ - _____
 Student's Name: _____ Date of Birth: _____
 Date of Diabetes Diagnosis: _____ type 1 type 2 Other
 School: _____ School Phone Number: _____
 Grade: _____ Homeroom Teacher: _____
 School Nurse: _____ Phone: _____

CONTACT INFORMATION

Mother/Guardian: _____
 Address: _____
 Telephone: Home _____ Work _____ Cell: _____
 Email Address: _____
 Father/Guardian: _____
 Address: _____
 Telephone: Home _____ Work _____ Cell: _____
 Email Address: _____

Student's Physician/Health Care Provider: _____
 Address: _____
 Telephone: _____
 Email Address: _____ Emergency Number: _____
 Other Emergency Contacts:
 Name: _____ Relationship: _____
 Telephone: Home _____ Work _____ Cell: _____

Helping the Student with Diabetes Succeed 99

http://www.nhlbi.nih.gov/files/docs/public/lung/asthma_actplan.pdf

Asthma Action Plan

For _____ Doctor: _____ Date: _____
 Doctor's Phone Number: _____ Hospital/Emergency Department Phone Number: _____
Doing Well
 ■ No cough, wheeze, chest tightness, or shortness of breath during the day or night
 ■ Can do usual activities
And, if a peak flow meter is used,
 Peak flow: more than _____ (80 percent or more of my best peak flow)
 My best peak flow is: _____
 Before exercise: 2 or 3 puffs _____ 5 minutes before exercise

Asthma is Getting Worse
 ■ Cough, wheeze, chest tightness, or shortness of breath, or
 ■ Waking at night due to asthma, or
 ■ Can do some, but not all, usual activities
-Or-
 Peak flow: _____ to _____ (50 to 70 percent of my best peak flow)
Free Add: quick-relief medicine—and keep taking your GREEN ZONE medicine.
 (short-acting beta₂ agonist) 2 or 3 puffs, every 20 minutes for up to 1 hour
 Nebulizer, once
Return If your symptoms (and peak flow, if used) return to GREEN ZONE after 1 hour of above treatment:
 Continue monitoring to be sure you stay in the green zone.
-Or-
 If your symptoms (and peak flow, if used) do not return to GREEN ZONE after 1 hour of above treatment:
 1. Add _____ (short-acting beta₂ agonist) _____ mg per day For _____ (3-10) days
 2. Call the doctor _____ (oral steroid) _____ hours after taking the oral steroid.

Medical Alert!
 ■ Very short of breath, or
 ■ Quick-relief medicines have not helped, or
 ■ Cannot do usual activities, or
 ■ Symptoms are same or get worse after 24 hours in Yellow Zone.
-Or-
 Peak flow: less than _____ (50 percent of my best peak flow)
Take this medicine:
 1. _____ (short-acting beta₂ agonist) _____ 2 or 3 puffs or 1 Nebulizer
 2. _____ (oral steroid) _____ mg
Then call your doctor NOW. Go to the hospital or call an ambulance if:
 ■ You are still in the red zone after 15 minutes AND
 ■ You have not reached your doctor.

ANGER SIGNS ■ Trouble walking and talking due to shortness of breath ■ Take 2 or 3 puffs of your quick-relief medicine AND
 ■ Lips or fingernails are blue ■ Go to the hospital or call for an ambulance (phone) _____ NOW!
 See the reverse side for things you can do to avoid your asthma triggers.

Seizure Action Plan

Effective Date: _____

This student is being treated for a seizure disorder. The information below should assist you if a seizure occurs during school hours.

Student's Name: _____ Date of Birth: _____
 Parent/Guardian: _____ Phone: _____ Cell: _____
 Other Emergency Contact: _____ Phone: _____ Cell: _____
 Treating Physician: _____ Phone: _____
 Significant Medical History: _____

| Seizure Information | Length | Frequency | Description |
|---------------------|--------|-----------|-------------|
| | | | |
| | | | |

Seizure triggers or warning signs: _____ Student's response after a seizure: _____

| Basic First Aid: Care & Comfort | Basic Seizure First Aid |
|---|---|
| Please describe basic first aid procedures: Does student need to leave the classroom after a seizure? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, describe process for returning student to classroom: _____ | • Stay calm & keep time • Keep child safe • Do not restrain • Do not put anything in mouth • Stay with child until fully conscious • Reorient student in leg For medicated seizures: - Place on head - Keep airway open with breathing - Turn child on side A seizure is generally considered an emergency when: - Convulsion (tremor/clonus) seizure lasts longer than 5 minutes - Student has repeated seizures without regaining consciousness - Student is injured or has diabetes - Student has a first-time seizure - Student has breathing difficulties - Student has a seizure in water |

Emergency Response
 A seizure emergency for this student is defined as:
 Seizure Emergency Protocol (School at the start and each time)
 Contact school nurse at _____
 Call 911 for transport to _____
 Notify parent or emergency contact
 Administer emergency medications as indicated below
 Notify doctor
 Other _____

| Treatment Protocol During School Hours (include daily and emergency medications) | | | |
|--|------------|----------------------------|--|
| Emergency Medication | Medication | Dosage & Time of Day Given | Common Side Effects & Special Instructions |
| | | | |

Does student have a Vagus Nerve Stimulator? Yes No If YES, describe magnet use: _____

Special Considerations and Precautions (regarding school activities, sports, trips, etc.)
 Describe any special considerations or precautions: _____

Physician Signature: _____ Date: _____
 Parent/Guardian Signature: _____ Date: _____
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http://www.epilepsy.com/site/s/core/files/atoms/files/seizure-action-plan-pdf_0.pdf

<http://www.foodallergy.org/file/emergency-care-plan.pdf>

FARE FOOD ALLERGY & ANAPHYLAXIS EMERGENCY CARE PLAN

Name: _____ D.O.B.: _____
 Weight: _____ lbs. Asthma: Yes (higher risk for a severe reaction) No
 NOTE: Do not depend on antihistamines or inhalers (bronchodilators) to treat a severe reaction. USE EPINEPHRINE.

Extremely reactive to the following foods: _____
 THEREFORE:
 If checked, give epinephrine immediately for ANY symptoms if the allergen was likely eaten.
 If checked, give epinephrine immediately if the allergen was definitely eaten, even if no symptoms are noted.

| FOR ANY OF THE FOLLOWING SEVERE SYMPTOMS | | | | MILD SYMPTOMS | | | |
|---|--|--|---|---|---|--|--------------------------------------|
| LUNG Short of breath, wheezing, repetitive cough | HEART Pale, blue, faint, weak pulse, dizzy | THROAT Tight, hoarse, trouble breathing/swallowing | MOUTH Significant swelling of the tongue and/or lips | NOSE Itchy/runny nose, sneezing | MOUTH A few hives, mild itchy | SKIN A few hives, mild itchy | GUT Mild nausea/discomfort |
| SKIN Many hives over body, widespread redness | GUT Repetitive vomiting, severe diarrhea | OTHER Feeling something bad is about to happen, anxiety, confusion | OR A COMBINATION of symptoms from different body areas. | FOR MILD SYMPTOMS FROM MORE THAN ONE SYSTEM AREA, GIVE EPINEPHRINE. FOR MILD SYMPTOMS FROM A SINGLE SYSTEM AREA, FOLLOW THE DIRECTIONS BELOW: 1. Antihistamines may be given, if ordered by a healthcare provider. 2. Stay with the person; alert emergency contacts. 3. Watch closely for changes. If symptoms worsen, give epinephrine. | | | |
| 1. INJECT EPINEPHRINE IMMEDIATELY. 2. Call 911. Tell them the child is having anaphylaxis and may need epinephrine when they arrive. • Consider giving additional medications following epinephrine: = Antihistamine = Inhaler (bronchodilator) if wheezing • Lay the person flat, raise legs and keep warm. If breathing is difficult or they are vomiting, let them sit up or lie on their side. • If symptoms do not improve, or symptoms return, more doses of epinephrine can be given about 5 minutes or more after the last dose. • Alert emergency contacts. • Transport them to ER even if symptoms resolve. Person should remain in ER for at least 4 hours because symptoms may return. | | | | | | | |
| MEDICATIONS/DOSES Epinephrine Brand: _____ Epinephrine Dose: (10.15 mg IM (10.3 mg IM Antihistamine Brand or Generic: _____ Antihistamine Dose: _____ Other (eg., inhaler-bronchodilator if wheezing): _____ | | | | | | | |

PHYSICIAN/ANAPHYLAXIS AUTHORIZATION SIGNATURE: _____ DATE: _____ PHYSICIAN/ANAPHYLAXIS AUTHORIZATION SIGNATURE: _____ DATE: _____
 FORM PROVIDED COURTESY OF FOOD ALLERGY RESEARCH & EDUCATION (FARE) WWW.FOODALLERGY.ORG 5/2014

<http://main.diabetes.org/dorg/PDFs/Advocacy/Discrimination/dmm-p-form.pdf>

Resources for safe transportation of CSHCN

- NHTSA, Child Passenger Safety Restraint Systems on School Buses, National Training Participant Manual. June 2015
 - <http://cpsboard.org/cps/wp-content/uploads/2013/03/Participant-Manual-with-Covers.pdf>
- Rehabilitation Engineering Research Center on Transportation Safety. University of Michigan Health System. University of Michigan Transportation Research Institute. Safe Ride.
 - <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-Transportation>
- American Academy of Pediatrics policy statement on school bus transportation of children with special needs to be published 2017



Summary

- 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
- Include all stakeholders--patient, caregiver, physician, school nurse, therapists, school bus driver and aide, school district representative, transportation director, school leadership, school psychologist
- Choose the appropriate child safety restraint system for that child
- Adjustment of bus route to ensure that the bus is within reasonable distance to an EMS facility.
- Key is planning ahead with a child passenger-centered team, knowing limits, outlining care plan, good communication