Car Seats, Belts and Buses: The 10 Most Common Mistakes

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Objectives:
- Discuss school bus occupant protection systems.
- Discuss the top ten most common mistakes when using Child Restraints on a school bus.
- Discuss how to “spec” a bus to provide safer pre-school transportation.
- Provide practical tips.

Car Seats, Belts and Buses

Objectives:
- Provide CPS information for school bus transporters and CPS technicians who work with those who transport pre-school age children and infants.
- Provide an overview of NHTSA’s Guidelines for Transporting Preschool Children.
What Do We Know?

The School bus is the safest vehicle on the road.

Car Seats, Belts and Buses

- Larger / Heavier
- Rib cage design
- Seating positions are elevated
- Stop arms
- Eight way lighting system
- Color
- Laws

Car Seats, Belts and Buses

School Buses are now transporting infants and toddlers

- It is estimated that as many as one million preschool age children ride school buses every day.
- How do we do it safely?
- How do we prepare?
Car Seats, Belts and Buses

NHTSA's Guideline for the Safe Transportation of Pre-school Age Children on School Buses, Feb. 1999

- Always transport in a properly secured child safety restraint system.

Head Start Transportation
Title CFR 45 Part 1310
- Provides regulations on safety features and the safe operation of vehicles used to transport children participating in Head Start and Early Head Start. (Fully Implemented 2006)
- Grantees / delegate agencies required to provide:
  - Training in safety (including pedestrian safety),
  - Make reasonable efforts to coordinate transportation resources to control costs
  - Improve the quality and the availability of transportation services.

Car Seats, Belts and Buses

Head Start Regulations (con’t)
- Agencies providing transportation services are required to transport enrolled children in school buses or allowable alternate vehicles.
- NHTSA issued regulations for the MFSAB or Multifunction School Activity Bus which meet the Head Start Regulations.
- Vans may NOT be used for this transportation purpose.
Head Start Regulations (cont)

- Agencies providing transportation services must ensure that children are seated in appropriate restraint systems which can now include safety vests.

Effective December 30, 2006 each agency must:

- Ensure that there are school buses or allowable alternate vehicles adapted or designed for transportation of children with disabilities available as necessary to transport such children enrolled in the program.
- 10% of Head Start enrollment is made available to children with disabilities.

Head Start Regulations (con’t)

- There must be at least one bus monitor on board at all times who assists children in boarding and exiting and in the use of child restraint systems.
- This is an opportunity for CPS technicians to provide on-going training for bus monitors and transportation coordinators.
Car Seats, Belts and Buses

**Occupant Protection:**
- Any system that provides protection to a vehicle’s occupants in the event of a crash.
- Holds occupants in place so that they are not thrown around.
- Minimizes or prevents injuries or death.

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**Car Seats, Belts and Buses**

- Air Bags
- Safety Belts
- Child Restraints
- Compartmentalization

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**Compartmentalization:**
- Acts like a protective envelope.
- Has closely spaced seats.
- Seat backs are high, flexible and energy-absorbing.
Common mistake: # 10

**Seats are too close**

**Spacing between seats:**
- Must be spaced to the maximum spacing allowed under FMVSS 222.
- About 24 inches from seating reference point, (SRP).

**Compartmentalization**

- 24 in. minimum
- 24 in. max
- SRP
Car Seats, Belts and Buses

Common mistake: # 9

Bus must be equipped with a FMVSS 210 seat

FMVSS 210 seat vs. Non-210 seat

- Lap-belt ready seat (note diagonal support and other supporting structure in seat)
- Seat that is not "lap belt ready"
Car Seats, Belts and Buses

FMVSS 210:
- The seat must be reinforced to anchor seat belt system.

Common mistake: # 8

Seat Belt Systems
Non-adjustable end of the lap belt extends no more than 1-2 inches.

FMVSS 225:
- 2 LATCH seating positions in buses < 10,000 pounds.
- No tether anchor.

Effective October 21 2011:
- All new school buses 10,000 lbs. and less will have lap and shoulder belts on seats. Seats/restraints must meet new established standards.
- All new school buses over 10,000 lbs. will continue to have lap and shoulder belts on seats as an option. If installed, seats/restraints must meet new established standards.
Effective October 21 2011:
- Lap belts will continue to be allowable for school buses over 10,000 lbs.
- Buckle length will be limited to 2.5” beyond the SRP.

Lap and Shoulder Belts on School Buses
- 2 or 3 to a seat depending on a 30 or 39 inch seat

Recommendations:
- Color coded seat belts.
- Non-adjustable end of lap belt anchored at the aisle and center positions.
- Non-adjustable end of lap belt should extend no more than 1-2 inches.
Car Seats, Belts and Buses

Common mistake: # 7

Child Restraints

FMVSS 213:
- Governs performance standards for Child Restraints
- Crash worthiness
- Labeling / Instructions
- Flammability / Buckle release pressure
- Type of crash test dummies - 10 year old
- Child Restraints > 80 pounds

FMVSS 213 Label Guidelines:
- Weight & size guidelines.
- Basic instructions for correct installation / use.
- Name & address of manufacturer / distributor.
- Model number & date.
- Air bag warning on rear-facing child restraint.
FMVSS 213 UPDATE:
As of February 27, 2014
• Requires permanent, visible labels that MUST include verification that it conforms to federal standards.
• Provides child restraint performance standards for children up to 80 lbs.

Selecting the Correct Child Restraint:
• Age
• Height
• Weight
• Developmental Levels
• Behavioral Needs

Infant Seats:
• Rear-facing up 40 pounds.
• Infants must be at no more than a 45 degree angle.
• Difficult to install on bus seats due to compartmentalization.
Rear-Facing Convertible Car Seat:
- Maximum rear-facing weight may be up to 45 pounds.
- Children should ride rear-facing **as long as possible**, to the maximum weight / height allowed.
- Use in reclined position.
- Difficult to install on a school bus.

Forward-Facing Convertible Car Seat:
- 20-40 / 65-80-90 pounds.
- Use in the most upright position due to the 90 degree angle of the school bus seat.

Forward-facing:
- Children over 1 year old from 20-80 up to 105 pounds.
- Some special needs seats up to 150 pounds.
- Some can **ONLY** be used with the harness, some have a removable harness.
- Some must be tethered; Some have LATCH.
Car Seats, Belts and Buses

Forward-Facing
Only Car Seats

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Columbia Medical:
• 20-102 pounds
  • 60 inches
• 40-130 pounds
  • 54-66 inches

Car Seats, Belts and Buses

Forward-facing / Belt Positioning Booster

• Can ONLY be used with internal harness on a school bus.

www.pakidstravelsafe.org 1-800 CAR BELT
Car Seats, Belts and Buses

Belt Positioning Boosters

- Do NOT use on a school bus with lap belt only or lap/shoulder belts.

Car Seats, Belts and Buses

Always read the car seat manufacturer’s instructions for all Child Restraints.
Car Seats, Belts and Buses

- Safety Vests
- Add-on Seats
- Integrated Seats

EZ-ON Vests:
- Multiple sizes
- 20-168 pounds
- Back zipper panels
- Crotch strap
- Multiple vehicles
  - Passenger vehicles
  - Vans
  - School buses
Car Seats, Belts and Buses

**EZ-ON MAX VEST**
- Designed with additional safety features to travel safely with the "little Houdini's"

Car Seats, Belts and Buses

**HYBRID**
SafeGuard STAR:
- 25 - 65 pounds
- 25 - 90 pounds
- 25 - 105 Special Needs STAR
- Use **ONLY** on a school bus

Car Seats, Belts and Buses

**STAR Connector Strap**
- Three to a seat
- No lap belts
- Students from 25 up to 90 pounds
STAR Special Need Seat:
- Upper torso support
- More depth in seat
- Abductor
- Adjustable head restraint
- Recline wedge

Besi-Inc. Pro-Tech II
- 20-65 pounds
- Up to 47 inches
- Waist size: 21-24 inches
- Does not require a lap belt

Besi-Inc. Pro-Tech III
- 20-90 pounds
- Up to 57 inches
- Waist size: 21-34 inches
- Does not require a lap belt
Car Seats, Belts and Buses

Integrated seat:
- 5-point harness.
- Models after 1999 with retractable harness.
- Always check the maximum weight.

Common mistake: # 6

Knowledge of Child Restraint Systems
Car Seats, Belts and Buses

Fit the seat to the child:
- Match the child’s age, height, and weight with the appropriate CRS.
- Measure and weigh each child at least every 3 months to ensure that the CRS being used is still appropriate.

Common mistake: # 5

Installation of the CRS

Dilemma:
School Bus and CRS
- Most large school buses do not have seat belts / 210 seats.
- Minimum spacing between seats.
- Have a 90 degree seat angle.
- Seat has very little “give” in the cushion.
Car Seats, Belts and Buses

Proper Installation on a School Bus
- Read car seat instructions.
- Use the proper seat belt system.
- Apply weight to the seat to tighten.
- Test movement: less than 1 inch at the belt path

Proper Installation on a School Bus
- Tethers should be properly attached for some special needs seats.
- Use LATCH if available on the bus seat and CRS.
- Install on the window seat not aisle seat.

Recommendations:
- Anchored to a lap-belt ready reinforced seat.
- LATCH (Lower anchors) in several seating positions.
- CRS installed in the front of the bus.
- Bus seat should be at least 39 inches to accommodate two CRS.
- Adequate aisle width for easier evacuation.
Car Seats, Belts and Buses

CRS should be properly installed by trained personnel.

Car Seats, Belts and Buses

Common mistake: # 4

Who provides the CRS?

Car Seats, Belts and Buses

Best Practice:

School Districts provide, maintain, and store CRS.
If the parent/caregiver provides the seat, check:
- All working parts
- Age and history of the seat
- Crash information
- Proper instructions
- Recalled

Replacement of a Car Seat:
- Life expectancy of a child safety seat is approximately 6 years.
- Use manufacturer’s date on the label.
- Use other identifying marks.
  - i.e. Expiration date

NHTSA recommends:
- CRS on school buses do not automatically need to be replaced following a minor crash.
Car Seats, Belts and Buses

Suggestions:
- Try to provide a seat for each child.
- Always have an inventory of extra CRS parts.
- “Property of” sticker placed on each car seat.
- Try not to have all of the same make/model/date car seat in the event of a recall.

Car Seats, Belts and Buses

School district/contractor can assign and train personnel to:
- Check that maintenance is performed.
- Check for recalls.
- Maintain an inventory system.
- Provide proper storage.
- Dispose of properly, when necessary.

Car Seats, Belts and Buses

- Storage location
  - Clean, dry storage locker / closet
- Maintain a list of child safety seats
  - Model number
  - Manufacturer date
  - Original Instructions
  - In-use location / bus
Common mistake: # 3

Confidentiality

HIPAA vs FERPA

HIPAA
Health Insurance Portability and Accountability Act of 1996.

FERPA

HIPAA: Specifically EXCLUDES education records.

FERPA: Covers all student information - including health information - maintained by a school district.

Exception: - a school which does not receive federal funds.
FERPA allows schools to disclose records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):

- School officials with legitimate educational interest;
- “Right to know what you need to know”.

Common mistake: # 2

Evacuations

Recommendations:
- Bus should be equipped with:
  - a belt cutter
  - an evacuation device
  - a fire blanket
- depends on state law
Car Seats, Belts and Buses

- Evacuation device:
  - Specially designed device with handles to effectively drag a person or CSRS to an exit and away from the bus.
- Fire blanket:
  - Chemically treated blanket used to cut off the oxygen supply to a fire and could also be used to keep a child warm in the case of injury or shock.

Car Seats, Belts and Buses

- The number of preschoolers on the bus will determine the evacuation process.
- The child may remain in the car seat to evacuate quickly and safely.
- Children who are evacuated out of CSRS may utilize a rope guide to “corral” students.
- An evacuation plan must be in place. Know how to get the students off the bus even before they are on the bus.
Driver and monitors must practice an evacuation drill with car seats.

CPS Technicians can teach / practice with drivers and monitors how to quickly and safely remove a child from a CRS.

Bus should be “spec’d” with aisles wide enough for emergency egress with CRS.

Common mistake: # 1

Lack of Training

Training
IDEA and Head Start require training

NHTSA Standardized CPS certification

Child Passenger Safety Restraint Systems in School Buses National Training

CPS technicians with knowledge of school buses can provide training opportunities.
TIPPP as a resource...

- Assistance with selecting or installing a car seat.
- Car seat recall information.
- Print materials and videos.
- Assistance with transportation programming needs & training.

Resources:

PA Chapter of the American Academy of Pediatrics, Traffic Injury Prevention Project
1-800-CAR-BELT (in PA)

www.pakidstravelsafe.org

National Highway Traffic Safety Administration
www.nhtsa.gov

Car Seats, Belts and Buses

Thank You!

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