Many school-aged children with handicaps are transported in school buses. A recent amendment to the Individuals with Disabilities Education Act has established requirements for infants and toddlers to have access to developmental and rehabilitation facilities. This amendment, to Part H of the Individuals with Disabilities Education Act (enacted as part of Public Law 102-119), however, does not specify how these children are to be transported to these facilities, a responsibility that will be faced by many school systems.

FMVSS 222 (School Bus Passenger Seating and Crash Protection) established safety requirements for school bus interiors, but to date it only applied to able-bodied children. However, an amendment to FMVSS 222 becomes effective in January 1994 that applies to the securement of wheelchairs and their occupants in school buses. National recommended standards for special education school buses were revised in May 1990 by the Eleventh National Standards Conference on School Transportation.1

Wheelchairs are the primary mode of transport on the school bus for many children with special needs. They have not been developed as safety restraint devices, however, and are not currently subjected to any crash-testing requirements. Research2–5 nevertheless, has provided a basis for recommendations concerning occupant securement for a wheelchair-dependent child and a child with special needs who is transported on a school bus:

1. Any child who can assist with transfer or be “reasonably” moved from a wheelchair, stroller, or special seating device to the original manufacturer’s forward-facing vehicle seat equipped with dynamically tested occupant restraints or be “reasonably” moved to a child car seat complying with FMVSS 213 requirement should be so transferred for transportation to and from school. The unoccupied wheelchair also should be secured adequately in the vehicle6 to prevent it from becoming a dangerous projectile in the event of a sudden stop or crash.

2. Passenger seats that have a child safety seat or restraint system attached thereto should have a reinforced frame and meet the requirements of FMVSS 208 (occupant crash protection), FMVSS 209 (seat belt assemblies), and FMVSS 210 (seat belt anchorages).

3. All child safety seats or restraint systems used for transportation in any school bus by children who weigh less than 50 lb should meet the requirements of FMVSS 213.

4. Child safety seats or restraint systems must be secured to the bus seat in a manner prescribed and approved by the manufacturer.

5. Car safety seats used to transport children weighing less than 20 lb should be attached to the school bus seat in a rearward-facing position.

6. Occupied wheelchair(s) should be secured in a forward-facing position.

7. Three-wheeled, cart-type units and other wheelchair/stroller-type devices should not be permitted for occupied transport in a school bus unless results of impact tests demonstrate their ability to be secured under impact loading conditions. Any wheelchair or stroller-type unit designed and approved by a manufacturer for transportation must be used according to manufacturer’s instructions.

8. Wheelchairs should be secured with fastening devices that are attached to the floor. Fastening devices should attach to the wheelchair at four points and must have demonstrated capabilities for restraining the wheelchair during a frontal impact with force conditions of 30 mph and 20g. The wheelchair securement system must not apply restraint to the wheelchair through the occupant and should attach to the frame of the wheelchair rather than to the wheels.

9. Any occupied wheelchairs should be secured with four-point tie-down devices. These tie-down systems should be dynamically tested with a male dummy at the 50th percentile or with a dummy at the appropriate size for the type of wheelchair necessary.

10. Lap boards or metal or plastic trays attached to the wheelchair or to adaptive equipment should be removed and secured separately for transport.

11. An occupant restraint system that has been tested at 30 mph and 20g force conditions and that includes upper torso restraint (ie, shoulder harness) and lower torso restraint (ie, lap belt over pelvis) should be provided for each wheelchair-seated occupant.

This statement has been approved by the Council on Child and Adolescent Health.

The recommendations in this policy statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

For additional information on this topic a policy statement entitled, “Transporting Children with Special Needs,” developed by the Committee on Injury Prevention, was published in the Winter 1993 issue of Safe Ride News, a newsletter of the American Academy of Pediatrics.
12. Any liquid oxygen transported in a school bus should be securely mounted and fastened to prevent damage and exposure to intense heat.

The following considerations should be incorporated into the school system planning for the transportation requirements of children with special needs:

1. In accordance with state laws and regulations, a nurse or an aide with appropriate medical training can provide necessary on-board assistance and support to most children with tracheostomies who may require suctioning or emergency care during school bus transport. School systems should consider providing nurses or aides, when medically necessary, to help reduce the potential for respiratory and other related problems occurring while the children are on the school bus. This assistance should be included where appropriate in the child’s Individual Education Plan.

2. School bus transportation staff should have annual access to training programs and resource material in special needs transportation to ensure that they can provide the most current and proper support to children with special transportation requirements. Transportation staff who work with children with special needs can carry out their daily responsibilities when provided with documented training that assures consistent and proper restraint for children with special needs on school buses.7

3. Parents of children with special needs should be informed of the importance of incorporating appropriate and safe transportation specifications in their child’s individual education plan.

4. School systems can help assure optimum protection for children with special needs during school bus transport by establishing a written plan that outlines procedures for emergency evacuation and by requiring, at the minimum, an evacuation drill for each school year that enables the transportation staff to practice working with evacuating children under their care.

5. Children who are technology-supported may have an increased potential for carrying infectious and communicable diseases. Schools are advised to develop a comprehensive infection control program to protect transportation staff, school employees, and the children being transported. Caretakers who have direct contact with at-risk populations of children should be offered hepatitis B vaccine. Transportation staff should be provided with training and supplies that prepare them to carry out universal precaution practices and procedures to control unnecessary exposure to various diseases.8

The American Academy of Pediatrics anticipates that more states will begin to address the transportation requirements of children with special needs. 

Pediatricians can help their patients by being aware of general guidelines for evaluating restraint systems that meet the needs of children with special needs and remaining informed of new resources as they become available. Periodically updated information on specific restraint systems for children with special needs can be obtained through the American Academy of Pediatrics. In addition, pediatricians can play important roles at the local and state levels to assist in the evaluation and development of school bus specifications that are responsive to the safe transportation requirements of children with special needs.

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Committee on Injury and Poison Prevention
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The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://pediatrics.aappublications.org/content/93/1/129