

# **SPECIAL NEEDS STUDENT TRANSPORTATION**

# TABLE OF CONTENTS

	Page
Forward .....	i
Introduction .....	ii
Acknowledgement.....	iii
Roles and Responsibilities.....	iv
Section I: The Implementation Process for Individuals with Disabilities	
Education Act (IDEA) .....	1
Identification and Referral of Students .....	2
Planning for Special Needs Transportation.....	2
Evaluation and Planning Relative to a Student's Special Needs .....	2
Routing for Students with Disabilities .....	4
Section II: Individualized Education Program (IEP) – Individualized Family	
Service Plan (IFSP) Process.....	7
Individualized Education Program/Individualized Family Service Plan .....	8
Legal Considerations .....	9
Options.....	9
IEP Staff .....	9
Discussion of Concerns .....	9
School/Education Administration .....	10
Transportation Administration .....	10
Drivers and Attendants.....	11
Special Equipment Use and Operation .....	13
Medical Health Issues .....	14
Development .....	15
Confidentiality.....	15
Policy Approval .....	16
Section III: Laws, Rules and Regulations .....	17
Federal Regulations.....	18
Section 504 of the Rehabilitation Act of 1973, P.L. 93-112.....	18
The Education of the Handicapped Act (EHA).....	18
The Individuals with Disabilities Act of 1990 (IDEA) .....	19
The Education of All Handicapped Children's Act (EAHCA)	
Amendment of 1986 .....	19
The Individuals with Disabilities Education Act Amendments of 1991 .....	20
The Handicapped Children's Protection Act of 1986 .....	20
The Americans with Disabilities Act of 1990 .....	20
The Individuals with Disabilities Education Act (IDEA)	
Amendments of 1997 .....	20
State Regulations.....	21
Section 226.910 .....	21
Section 226.920 .....	21
Section 226.930 .....	21
Section 226.935 .....	21
Section 226.938 .....	21
Section 226.940 .....	21
Section 226.950 .....	21
Section 226.960 .....	21
Section IV: Discipline .....	23

Discipline on the Bus .....	24
Suspension .....	25
Section V: Student Disability Categories .....	26
Student Disabilities Categories .....	27
Autism .....	27
Behavior/Emotional Disorder .....	27
Deaf-Blind .....	27
Development Delay .....	27
Health Impairment.....	27
Hearing Impairment.....	27
Mental Impairment .....	28
Multiple Impairment.....	28
Physical Impairment.....	28
Specific Learning Disability .....	28
Speech and/or Language Impairment.....	28
Traumatic Brain Injury .....	28
Visual Impairment .....	28
Serious Medical Conditions.....	28
Seizures/Convulsions.....	29
Spina Bifida and Spinal Cord Injuries.....	29
Osteogenesis Imperfecta (Brittle Bone Disease) .....	29
Muscular Dystrophy (MD).....	29
Downs Syndrome (Mongolism) .....	29
Cerebral Palsy (CP) .....	29
Arthritis (Juvenile) .....	30
Emergency Medical Conditions.....	30
Anaphylactic Shock.....	30
Asthma .....	30
Cystic Fibrosis.....	30
Diabetes .....	30
Heart, Congenital Malformation .....	30
Hemophilia .....	31
Juvenile Arthritis.....	31
Kidney and Urinary Tract Disease .....	31
Leukemia.....	31
Osteogenesis Imperfecta .....	31
Pregnancy .....	31
Shunt.....	31
Tracheotomy .....	31
Section VI: Universal Precautions.....	33
Introduction .....	33
Bloodborne Diseases.....	33
HBV .....	33
HBV Vaccination .....	33
HIV .....	34
Cleaning Up Body Fluid Spills.....	34

Playing It Safe .....	35
Workplace Transmission .....	35
General Housekeeping Rules .....	36
Glove Removal.....	36
Good Housekeeping .....	36
Accidental Injury.....	37
Indirect Transmission.....	37
Exposure Control Plan for Student Transportation .....	37
Universal Precautions .....	37
Resuscitation Devices.....	38
Gloves .....	38
General Rules on Personal Protective Equipment.....	39
Reducing Your Risk .....	39
Emergency Controls.....	39
Work Practice Controls .....	40
Handwashing .....	40
Personal Hygiene.....	40
Personal Protective Equipment.....	40
Section VII: Loading, Unloading and Emergencies.....	42
Loading and Unloading Students with Special Needs .....	43
Suggested Evacuation of Special Needs Students.....	44
Issues to Consider in Establishing an Evacuation Plan .....	44
Teaching Children What To Do In An Emergency .....	45
Appendices .....	46
Appendix A: Terms and Definitions.....	47
Appendix B: General Questions and Answers .....	52
Appendix C: Review of Relevant Cases .....	62
Appendix D: Questions and Answers – Discipline .....	63
Appendix E: Students With Health Problems.....	64
Appendix F: Issues on Transporting Pre-K and Special Needs Students.....	84
Appendix G: Additional Resources .....	85
Web Sites.....	86

## **FOREWORD**

School transportation is one of the largest transportation systems in Illinois and is also one of the safest forms of transportation in the United States. Yet, there are opportunities to improve the services we provide the students of Illinois, and one of these opportunities is to improve the transportation of children with disabilities.

Across the United States, school bus manufacturers, educators, and transportation administrators are searching for solutions to the complex problems of transporting children with disabilities.

In Illinois, a collaborative effort between the State Board of Education, the Secretary of State, the Department of Transportation and industry representatives has resulted in the publication of this document. This is a guidance document that will assist school transportation personnel in meeting the needs of some of the most challenged students we serve.

The Illinois State Board of Education is pleased to provide this document to the school transportation community and salutes the committee that worked to develop this publication.

Glenn W. McGee  
State Superintendent  
of Education

## **Introduction**

The purpose of this document is to offer best practices for persons entrusted with the responsibility of managing transportation for students with special needs. The safety of the students is always the most important aspect of school bus transportation. The term "special education" means "specially designed instruction to meet the unique needs of a child with a disability." Transportation is one of the "related services" required when necessary to provide such instruction. These best practices, though general in nature, do contain adequate information to guide those persons responsible for pupil transportation in developing an action plan for the safe delivery of transportation services for students with special needs. This document reviews the current laws governing special transportation related to the individualized education program process, recommended staff training, and policy development. Transportation administrators and pertinent staff will become familiar with laws, guidelines, policies and procedures.

Special transportation as a related service is subject to least restrictive environment (LRE) provisions. A suggested practice is for districts to ensure that transportation decisions are made on a case-by-case basis. Districts should review transportation practices to ensure that students with disabilities are transported with students without disabilities to the maximum extent possible. In making this determination, the district should review transportation patterns to determine that students with disabilities are not categorically transported using separate vehicles.

## Acknowledgement

The State Board of Education would like to acknowledge the expertise and participation of the individuals in the school bus industry who contributed their time and energy to the development of this document. We are grateful for the dedication of pupil transportation personnel for their efforts toward school bus safety. Thank you for your time and experience.

Tom Casey	Crawford Bus Service
Karen Fassig	Ryder Student Transportation
Jeff Joyce	Richwoods High School, Peoria
Dick Stipher	Assistant Superintendent from DeKalb Regional Office of Education
Michael W. Wagner	Alpha School Bus Company, Crestwood
	Illinois School Transportation Association
Lucy Richardson	Secretary of State
Mike Kelley	Secretary of State
Larry Wort	Illinois Department of Transportation
Cathy Allen	Illinois Department of Transportation
Alvida Petro	Illinois State Board of Education
Nancy Pantoja	Illinois State Board of Education

We would also like to acknowledge the contributions provided by Dr. Linda Bluth, Chief, Community and Interagency Services Branch, Maryland State Department of Education; Dr. Kenten Gearhardt, Project manager, Community Education Department, Riley Hospital for Children, Indianapolis, Indiana; and editors from Colorado, Florida, New Mexico, Indiana, and Texas who gave their approval to use information from their special needs transportation publications.

## **Roles and Responsibilities**

The roles and responsibilities of agencies, districts, administrators, parents, etc. involved in pupil transportation are outlined in the Administrator's Manual for The Safe Transportation of Pupils in Grades 12 and Below developed for school district administrators.

The Administrator's Manual is the prelude to the Pupil Transportation Resource Library. It is intended to assist the local school transportation director and/or contractor with overall planning as well as the day-to-day operation of transportation vehicles. Safe transportation depends largely upon the quality of performance and degree of dedication displayed by those charged with the responsibility for administering the school transportation program.

Rather than duplicate the roles and responsibilities in this document, we refer users of the Special Needs Student Transportation document to the Administrator's Manual for questions and answers. Keep in mind that school bus safety is a community responsibility and should include everyone from the parent up to the State Director in ensuring the safety of students.



## **SECTION I**

# **THE IMPLEMENTATION PROCESS FOR INDIVIDUALS WITH DISABILITIES EDUCATION ACT (IDEA)**

## **IDENTIFICATION AND REFERRAL OF STUDENTS FOR SPECIAL EDUCATION**

A child suspected of having a disability can be referred to a school district for evaluation to determine if the student is eligible for special education by several interested persons, but most frequently, it is a school instructional staff person, parent, or guardian. An evaluation team should include the Individualized Education Program (IEP) team members and other qualified professionals, as appropriate. For students with unique transportation needs, this may include a transportation representative. The transportation representative may also be consulted prior to or invited to participate in the student's IEP meeting regarding transportation matters. As the evaluation team gathers information for appropriate evaluation of the suspected disability, indications will be evident as to whether the student will qualify for special education and will need transportation as a related service. The type of specialized transportation service required, the specialized care, intervention or training required as a result of a medical or health problem or chronic disease will be decided by the IEP team.

### **Planning for Special Needs Transportation**

It should be understood that the majority of special needs student transportation requirements are minimal. Many are able to ride regular transportation along with non-disabled students. As the complexity and severity of a student's disabilities increase, more specialized transportation will become necessary. Adequate planning for appropriate transportation requires time to be accomplished correctly and safely. Transportation personnel should be prepared for students with extraordinary needs by helping to create policies that

1. Require all special needs transportation requests/requirements to be written.
2. Permit specific persons within the school district to be responsible for communications about special needs transportation requests.
3. Establish minimum time lines for initiating special needs transportation following an IEP. This should not be confused with provision of special transportation at the beginning of a school year. Transportation services for students with IEPs should begin on the first day of school, as they do for nondisabled students.
4. Allow for extraordinary vehicle, driver training and/or equipment requirements.
5. Include home visits by the transportation personnel responsible for setting up transportation, if necessary.
6. Submit the specific transportation needs of a particular student to the transportation department as soon as possible after the IEP meeting or whenever the needs of the student change. Information submitted at the last minute causes additional problems which could be avoided by timely information.

### **Evaluation and Planning Relative to a Student's Special Transportation Needs**

If the student is found to be eligible for services under the Individuals with Disabilities Education Act (IDEA) and requires transportation as a related service, an IEP will be developed for the student. For students who will likely need special care or intervention during transportation or have adaptive or assistive equipment needs, transportation staff participation in the IEP can be essential in helping address the following concerns:

1. Can the student be safely transported given the transportation environment, including the length of the ride, without undue risk to the student or others?
2. Does the student have medical, health, physical or behavioral concerns which would expose the student to unreasonable risk given the anticipated transportation environment?
3. Can assistive or adaptive equipment identified as necessary to accommodate the student during the transportation process be safely secured and transported, and are there adequate instructions regarding its use? For example, every effort should be made to avoid transporting a student on a gurney or a stretcher mobility device, or one that reclines more than 45 degrees.
4. Education and transportation staff may lack the professional expertise and skills to make expert decisions regarding the above issues. The IEP meeting may include participants who are qualified to assist in determining transportation needs, particularly where significant medical or behavioral concerns are identified. When appropriate, a health care plan for the student should be developed which specifies the type and frequency of care required or expected; the skill level of the person expected to give the care; recommendation when general observation of the student by the driver would be adequate; or if a staff person independent of the vehicle driver is needed for the care or intervention of the student's needs.
5. Questions regarding the effect of necessary transportation services, (i.e., length of ride and/or time spent on the bus) on the student's ability to benefit from the planned program should be addressed.
6. Questions regarding appropriate and safe use of assistive or adaptive equipment, including mobile seating devices, ventilator or oxygen equipment, can be referred to such persons as physical therapists, occupational therapists, rehabilitation engineers, or equipment vendors for advice.
7. IEPs are reviewed annually to address the educational services and related services for students with disabilities. Transportation services will be reviewed as part of all annual reviews. If special circumstances occur that require changes to the IEP to ensure that safe transportation is available to and from school, school personnel, transportation staff, or the student's parent(s) may request an IEP to address the issues.

## ROUTING FOR STUDENTS WITH DISABILITIES

Once the IEP team has determined that a student with special needs will require transportation as a related service (to ensure that this student receives an appropriate education) routing becomes a vital part of the student's success equation.

We assume that the IEP team included a member from the transportation department. One of the main benefits of including a transportation person on the team is so that the education location, equipment and vehicle needs, personnel needs, pick up points, drop off points and time, will all be taken into consideration before the IEP team reaches a final decision.

Routing becomes a critical ingredient in the student's success formula. Factors to consider during the IEP process:

1. The educational program location is the least restrictive environment in which the IEP can be implemented. Educational programs should be located as close to a student's residence as possible.
2. Vehicles should be selected by the IEP team and should be the vehicle type necessary to transport the student safely and appropriately. Factors to consider, are vehicle size, seating arrangements and requirements, special needs, wheelchair accessibility, animal usage, nurse, monitor and attendant needs.
3. State regulations require that the IEP team put forth every effort to restrict the student's actual traveling time on the bus to sixty minutes or less one way. Every effort should be made to keep the student's traveling time to a minimum.
4. Student pick up and drop off locations should be the student's location of residence and will be determined by the IEP team. Parents, family or responsible person will make the student available for pick up and drop off on a timely basis. Transportation staff will be responsible for loading and unloading of students onto the vehicle by appropriate means.
5. Students with special needs can and should be included on regular transportation routes when it is appropriate, safe, and does not endanger the other students sharing the ride. This includes the transportation of wheelchairs, special needs assistive devices and other appropriate student requirements (keeping the above in mind). **Appropriate and professional training is a necessary ingredient for all personnel involved in the special needs transportation process.**
6. Transportation via a school bus is the first priority for all special needs students when possible. School district policy and student's needs will dictate the appropriate transportation mode.
7. Transportation may not violate the integrity of a student's educational day requirements.

8. It is highly recommended that every effort be made so that a special needs student participates in a transportation environment that encourages the usage of one driver and one vehicle for student continuity, confidence and program success.
9. Communication is a vital key for success in the transportation program at all levels. The better the communication program and process the greater the opportunity for each student's success will be. This includes, school/home, school/student, school/transportation department, driver/student, driver/parent, transportation department/parent, parent/school.
10. Discipline on the school bus should be in accordance with IEP requirements and may be different than that for regular education students. Drivers of special needs students should be afforded the benefit of training and information sharing by school officials for the safest and most productive transportation possible. Current law affords the sharing of confidential student information with transportation personnel when appropriate.
11. Students with varied special needs classifications, when appropriate, may be transported together on the same vehicle.
12. Unauthorized riders are not allowed and only individuals authorized by the local school district, the IEP team or medical personnel, may participate on a daily ride to and from school.
13. It is highly suggested that special needs students be dropped off at the appropriate location only when a responsible person is there to accept this student, or when other agreed upon terms have been worked out by the IEP team or local school officials.
14. What should transportation personnel do when there is no one available to accept the student during a drop off run? A suggested practice is to keep the student on the vehicle, call the base, who in turn will try to reach a parent or other family member. Should no contact with family members be available, the student should complete the entire route and be returned to the child's scheduled drop off location for a second attempt. Should this also fail, then a safe drop off location should be afforded the child (as outlined in #13 above) until a family member can be contacted. Appropriate "other" locations might include other family members' homes, back to the local school, park district or church locations.
15. Routing is the direct responsibility of the local school district. Routing should be a cooperative effort among all parties concerned, keeping in mind student needs, program location, equipment needs, traveling time, economics, and local resources available.
16. Every possible effort should be made to transport all wheelchair students in their wheelchairs. Transferring a student out of his/her wheelchair to a regular bus seat should be done only when directed to do so by a medical doctor.

17. School bus evacuation procedures for evacuating a medically fragile student from a school bus should be done in cooperation with the assistance of the occupational and physical therapy staff. This process should include training, necessary procedures and best practices guidelines for a safe evacuation program.

## **SECTION II**

### **INDIVIDUALIZED EDUCATION PROGRAM (IEP) - INDIVIDUALIZED FAMILY SERVICE PLAN (IFSP) PROCESS**

## **INDIVIDUALIZED EDUCATION PROGRAM/INDIVIDUALIZED FAMILY SERVICE PLAN**

The individualized education program (IEP) or the individualized family service plan (IFSP) is a description of services to be provided to children with disabilities during the course of a school year. The IEP team is the formal group that designs a student's educational plan, establishes goals and objectives/benchmarks, and determines the related services that are necessary for a student to benefit from special education. The IEP team decision-making process is a multidisciplinary effort that considers the child's present levels of educational performance, diagnostic evaluation data, standardized assessment data, social/emotional information, attendance, health/medical, and other such pertinent information. The IEP team reviews this information to determine needed special education and related services.

The child's IEP must include the following:

- a statement of the present level of educational performance;
- annual goals;
- short-term objectives/benchmarks to meet the goals;
- specific special education and related supplementary aids and services, program modifications or supports for school personnel to be provided;
- the beginning date and the anticipated duration of services;
- an explanation of the extent to which the child will not participate with nondisabled children in regular education programs including academic, non-academic and extracurricular programs;
- appropriate objective criteria, evaluation procedures, and a schedule for determining, at least annually, whether the short-term instructional objectives/benchmarks have been achieved.

The revised IEP provision of the 1997 IDEA Amendments focuses on supporting the student's involvement and progress in the general curriculum. IEPs must specify the special education and related services, supplementary aids and services to be provided, as well as program modifications and supports to be provided by school personnel for the child. Certain considerations must occur in the IEP process, e.g., Braille as needed, communication systems for students who are deaf, use of appropriate supports and services. General education teachers must be added to the IEP teams, and parents must be included on all panels deciding how their children will be served.

In addition, the IEP must include, as appropriate, information regarding special transportation for students requiring transportation to participate in their educational programs; assistive technology; vocational education as appropriate; extended school year (ESY) services; adaptive physical education; behavioral intervention plan for students classified as behavior disordered/emotionally disturbed and for students with other disabilities who have behavior problems that interfere with their learning; and transition planning for all students with disabilities beginning at age 14.

All special transportation needs must be addressed by the IEP team and documented in the IEP as related services. If it is anticipated that an IEP team might recommend a bus aide, vehicle adaptations, adaptive bus equipment, non-routine transportation schedule, precautions for medical conditions, etc., transportation personnel should be invited to the IEP meeting to



discuss all alternatives that may be considered. Decisions for attendance at an IEP meeting should be made on a case-by-case basis. Such transportation services are to be documented in the IEP. The IEP should provide the necessary specificity so the driver, school, parent and student know what services to expect.

### **Legal Considerations**

By law, the IEP team must consider several issues related to the student's educational program. When transportation is considered as a related service, there are a number of questions which must be addressed:

1. Can the student utilize regular transportation?
2. If not, can regular transportation be safely utilized if supplementary staff, equipment, and/or services are provided?
3. If not, what type of special transportation is required?
4. Is an attendant or other qualified personnel available?
5. Is a responsible adult available for pick-up and delivery of students?

### **Options**

In addition to the above considerations, it is often necessary to review various alternative transportation options to meet a student's needs. Some alternatives which may be allowable, when determined appropriate, are the parents, relatives, public or private transportation services. Consideration needs to be given to the continuum of transportation services available to students with disabilities. If special transportation is required, it must be provided at no cost to the parent.

### **IEP Staff**

While participating on an IEP team, a transportation staff member should be particularly vigilant so as to challenge transportation requirements that would be impossible to provide (such as a maximum riding time of 30 minutes when the student lives 45 minutes from school), or appears to be unsafe, or is not understood.

### **Discussion of Concerns**

If at some point after transportation has been implemented, the driver, attendant, or transportation director find the transportation plans unsafe, a student's behavior changes so dramatically as to create an unsafe environment, or the transporters need more information or assistance from the special education staff, any of the personnel listed can call an IEP meeting to discuss the concerns. The IEP can only be changed by the IEP team.

## **SCHOOL/EDUCATION ADMINISTRATION**

The following is intended to assist in establishing a training program for transportation staff that will enable them to respond to the concerns presented by special needs students (which is required by IDEA) and provide transportation staff with the skills needed to respond to routine and emergency circumstances during transportation. (See the Administrator's Manual for state and district transportation staff roles and responsibilities.)

School administrators and education staff who make program decisions for special education students, including the requirement for transportation as a related service, are frequently unfamiliar with transportation capabilities and limits. Those persons should have training in areas which would include:

1. Situations under which transportation staff be consulted, or included in the IEP Team process.
2. A knowledge of Illinois Special Education Rules and Regulations and local transportation policies and procedures, including communications and reporting procedures.
3. A general knowledge of transportation regulations which could assist in determining if transportation would be appropriate as a related service.
4. A general knowledge of alternative transportation options.
5. A general knowledge of current legislative, legal, and administrative decisions.
6. A general knowledge of the application of Least Restrictive Environment (LRE) regulations to transportation placements.
7. A general knowledge of the extent of training and skill levels available within the transportation staff.
8. The types of vehicles used for special transportation.
9. The types of equipment and occupant securement systems used.
10. A general knowledge of Do Not Resuscitate (DNR) Policies for local school districts as well as current legislative and administrative decisions concerning this topic.

(Refer to the Student Transportation Resource Library for laws, rules and regulations, both federal and state.)

### **Transportation Administration**

With increased responsibility being imposed on special education transportation providers through actions taken by legislative, legal, and administrative authorities, transportation administrators/supervisors must involve themselves in the leadership role to a greater degree

than that which is usually necessary for other types of transportation. While the duties and responsibilities of a transportation administrator/supervisor most likely would differ between various transportation providers, there are common areas of knowledge that are necessary to satisfactorily perform the responsibilities of an administrator/supervisor. Some are:

1. Knowledge of federal, state, and local laws and regulations regarding the equipment required on vehicles used for special education student transportation.
2. Knowledge of federal, state, and local laws and regulations regarding special education staff.
3. Knowledge of operational regulations such as student pick up/drop off locations.
4. A general knowledge of special education transportation regulations, such as student riding time and suspension period limitations.
5. A general knowledge of a special education student's due process rights and procedures.
6. A general knowledge of the student referral, evaluation and IEP process.
7. A general knowledge of the identity of resource persons and the location and availability of appropriate training.
8. A general knowledge of vehicle staffing requirements, including when an attendant might be needed.
9. A general knowledge of the availability of emergency medical services in the community who could assist if an emergency were to occur during transportation.
10. A general knowledge of state and local laws relating to child abuse and reporting procedures.
11. A general knowledge of state or local laws relating to limits of liability and policies and procedures for risk management.
12. A general knowledge of federal and state rules of confidentiality.
13. A general knowledge of legislative and administrative decisions and procedures concerning DNR.

### **Drivers and Attendants**

Drivers and attendants, as the direct service providers with hands-on responsibility must operate special equipment, manage student behavior, administer health care, (according to

their qualifications), and serve as a seating specialist in positioning and securing adaptive and assistive devices and occupants.

a. Selection and retention of transportation staff

The responsibilities frequently differ so substantially between the role of the non-disabled student transportation staff and the student with disabilities transportation staff that, while some staff feel comfortable transporting and associating with one category of student, they prefer not to be associated with the other category of student. Thus, it is important to explain fully to applicants for special education transportation staff positions the full implications of the duties expected. By eliminating applicants prior to hiring who would not feel comfortable performing some required services, staff retention level for this group will be relatively high. Staff retention is critical given the considerable costs associated with the extra training required. Having staff who have a continuing personal knowledge of the specific needs of individual students is a tremendous asset to their care.

b. Training components

To perform the responsibilities assigned in a safe and effective manner requires a substantial degree of specific training. Some training components which would be beneficial to transportation staff are:

- (1) Introduction to special education, including characteristics of disabling conditions, the student referral, assessment, IEP process, and protecting confidentiality of student information.
- (2) Legal issues, including federal and state law, administrative rules, and local policy.
- (3) Operational policies and procedures, including:
  - (a) Loading/unloading.
  - (b) Pick up/drop off (curb to curb-door to door).
  - (c) Evacuation procedures.
  - (d) Lifting procedures.
  - (e) Student accountability and observations including evidence of neglect and/or abuse.
  - (f) Post-trip vehicle interior inspections for students, medicine, and other articles left prior to parking vehicle. (See Illinois School Bus Driver Training Curriculum Pre- and Post-Trip Inspection.)
  - (g) Reporting procedures and report writing.

- (h) Record keeping.
- (i) Lines of responsibility relative to role as educational team member.
- (j) Lines of communications including parents and educational staff.
- (k) Route management, including medical emergencies, no adult at home, inclement weather, and field trips.
- (l) Behavior management, including:
  - i. Techniques for the development of appropriate behavior.
  - ii. Techniques for the management and extinguishing of inappropriate behavior.
  - iii. Techniques and procedures for the response to unacceptable behavior.
  - iv. Procedures for dealing with inappropriate or unacceptable student behavior that creates emergency conditions or poses a risk to health and safety.
  - v. Procedures for documenting and reporting inappropriate or unacceptable student behavior.
  - vi. Techniques and procedures for the response to unacceptable behavior including the possession and transportation of illegal weapons or drugs, gang activities, and harassment.
- (m) Blood borne pathogens and universal precautions procedures including the use of personal protective equipment. (A universal precautions video is available from the Illinois State Board of Education.)
- (n) Policies and procedures that ensure the confidentiality of personal identifying information.

### **Special Equipment Use and Operation**

There is a wide variety of equipment being identified to accommodate special education students that is required to be part of the transportation vehicle's environment. It is necessary for the transportation staff to be familiar with the design and operating procedure for this special equipment, as well as knowing how to conduct equipment inspection and make simple "field adjustments" during breakdowns. Some examples are:

1. Power lifts or ramps.
2. Emergency escape exits, including doors, windows and roof hatches.

3. Special fire suppression systems.
4. Power cut-off switch.
5. Emergency communications system.
6. Air conditioning system.
7. Mobile seating device, including trays and accessories, securement system hardware, and occupant securement systems.
8. Adaptive and assistive devices used to support or secure students, mobility aids, special belts, and devices (such as special crutches, braces, or wheelchairs, and including assistive technology devices).
9. All specially equipped school buses should be equipped with electronic voice communication systems which may be provided and installed by the body manufacturer, distributor, school district, operator or other party.
10. Service animals can be transported to assist the student with disabilities. District policies and procedures, as well as training, need to be established prior to transport. (Whenever an animal must be transported, the animal must be properly confined at all times on the bus.)

### **Medical/Health Issues**

As a result of new regulations, which are making educational opportunities available to more special education students who have severe medical/health conditions, school administration is finding it necessary to provide routine and emergency health care to students during the transportation process. Additionally, transportation staff may be exposed to infectious or communicable diseases which could be debilitating, or in extreme circumstances, fatal. Training regarding medical/health issues can be divided reasonably into two categories; precautionary handling, and care and intervention.

#### **1. Precautionary handling**

All transportation staff, including drivers, attendants, mechanics, and service personnel, such as washing and cleaning staff, should be trained in universal precautions (see Section VI "Universal Precautions for Prevention of the Spread of Infectious Diseases by Body Fluids" in this document) relative to the handling and exposure to contagious and communicable disease, including available immunizations. Suggested topics could include:

- a. Characteristics of contagious and communicable diseases.
- b. Disease management techniques.
- c. Use of protective equipment and devices.

## 2. Additional Care Planning

School administrators should also be aware that medically fragile, technology dependent, and highly disruptive students require specific care and intervention. Proficiency in basic first aid and cardiopulmonary resuscitation provides adequate training to care for most health concerns during transportation. For those students who need additional care, management, or intervention, or present specific health risks, a care plan should be developed during the assessment/evaluation process by the IEP team which would specify and provide the transportation department the following:

- a. A brief description of the student's current medical, health, or behavioral status, as well as an emergency care card with information on address, emergency phone numbers, etc.
- b. A description of the medical/health care or intervention necessary during transportation, including the frequency required.
- c. A description of who should provide the care or intervention.
- d. The type and extent of training or skills necessary for the driver and/or attendant.
- e. The inspection, operation, use and care of the student's special adaptive/assistive equipment including items such as oxygen containment systems, suctioning equipment, apnea monitors, ventilation equipment, etc.
- f. A description of emergency procedures to be implemented during a medical/health crisis, including communication with medical staff.
- g. A description of the procedures to be followed in changing the care plan when conditions indicate a change is warranted.

### **Confidentiality**

Information provided to transportation staff to assist in the orderly and safe transportation of a student, including disability, medical/health issues, or other personal characteristics or information, is protected by the provisions of the Family Educational Rights and Privacy Act (FERPA), and transportation staff shall be trained regarding confidentiality requirements.

### **Development**

In special education, there are any number of laws, rules, and regulations which dictate the service that must be provided, but few of them offer directions or suggestions as to how the service is to be provided. To guarantee a uniform and safe delivery of transportation service, both contracted and district operated, and provide consistent directions to a transportation staff written local school board adopted transportation policy and procedure directives shall be required. (23 IL Adm. Code 275.100(f))

#### Subjects Which Need Policy and Procedure Directives:

1. Control of student medicine transported between home and school on a vehicle.
2. Student suspension.
3. Physical intervention and management.
4. Authority to use safety vests and belts.
5. Early closing of school due to inclement weather or other emergencies.
6. Authority to operate special equipment by driver, attendant, parent, students, school staff, others.
7. Contingency plan for when no adult is home to receive students.
8. When to exclude special equipment which has a different design or configuration than that last used, has tears or breaks in the fabric or metal.
9. When students are referred for transportation without sufficient information being available to transportation staff to protect their safety.
10. Student pick up/drop off location (one location specified, or unlimited alternative locations allowed).
11. Control and management of confidential information.
12. When and how to involve community emergency medical/law enforcement personnel.
13. When to use wheelchairs and mobility aids as pupil seating on school buses if the manufacturer of said device does not endorse its use as such; recognizing that in many situations the safe, economical and prudent way to transport a child is in his/her wheelchair/mobility aid.
14. District policy for Do not Resuscitate (DNR) requests from parents, to include all appropriate school and transportation personnel. (Classroom and school bus policies may be different.)
15. Driver and attendant responsibilities regarding DNR orders.

#### **Policy Approval**

Transportation policies shall be in writing and formally approved by the appropriate education authority. Procedures shall include establishing time lines for periodic reviews or revisions.

(Refer to the Administrator's Manual and the Student Transportation Resource Library for additional information.)



### **SECTION III**

## **LAWS, RULES AND REGULATIONS**

## FEDERAL REGULATIONS

There are many laws and regulations governing the transportation of special needs students. Familiarity and compliance with these laws and regulations will enable a district to implement policies and procedures to meet the increasing demands for appropriate transportation services and equipment.

**Section 504 of the Rehabilitation Act of 1973, PL 93-112**, a federal civil rights statute prohibiting discrimination against individuals with disabilities, states that, "No otherwise qualified handicapped individual in the United States shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." It defines an individual with a disability as a person who has a physical or mental impairment that substantially limits one or more major life activities; has a record of such an impairment; or is regarded as having an impairment. Section 504 applies to all students with disabilities, not just those who are eligible for special education services.

Section 504 provides important regulations pertaining to the education of students with disabilities. Any agency that operates a public elementary or secondary education program shall provide a free appropriate public education (FAPE) to each qualified individual with a disability who is in the recipient's jurisdiction, regardless of the nature or severity of the individual's disability.

References to an appropriate education provide for the provision of regular or special education and related aids and services that are designed to meet individual educational needs of individuals with disabilities as adequately as the needs of non-disabled individuals are met and are based upon adherence to procedures that satisfy the requirements of evaluation, placement and procedural safeguards. Educational and related services are to be provided without cost to the individual with a disability or to his or her parents or guardian, except for those fees that are imposed on non-disabled individuals or their parents or guardian.

If a district places a student with disabilities in or refers such an individual to a program not operated by the district, the district shall ensure adequate transportation. Transportation would be provided to and from the program at no greater cost than would be incurred by the individual or his or her parents or guardian if the student were placed in a program operated within the district.

Section 504 is not a funding statute. Federal and state monies are not available to offset costs of serving students with disabilities covered only under Section 504.

**The Education of The Handicapped Act (EHA)**, better known as Public Law 94-142, was passed by Congress in 1975. It directed that a free appropriate public education (FAPE) be provided to eligible students with disabilities and that an individualized education program (IEP) be developed for each eligible disabled student. This law also addressed steps that must be taken to identify and evaluate a disabled child; procedures that ensure and protect the parents' involvement/contribution to the IEP; provisions that require disabled students to be educated with non-disabled students to the maximum extent possible in the least restrictive environment (LRE); and that persons involved with the student's special education program be appropriately and adequately trained.

Special education was defined as instruction specially designed to meet the unique needs of the child with disabilities. This includes instruction in the classroom, home, hospital or institution as well as instruction in physical education. This must be provided at no cost to the parents or guardians.

Public Law 94-142 addressed transportation specifically and stated that transportation be provided as a related service if a child required it in order to benefit from special education programs. Transportation services may include (i) travel to and from school and between schools, (ii) travel in and around school buildings, and (iii) specialized equipment (such as special or adaptive buses, lifts, and ramps) if required to provide special education for a handicapped child.

**The Individuals with Disabilities Education Act of 1990 (IDEA) Part B (P.L. 101-476)** reauthorized and renamed P.L. 94-142 of 1975. All references to handicapped children were changed to children with disabilities, and it broadened the definition of the terms assistive technology device and assistive technology service. The age range specified as 5 through 21 in P.L. 94-142 was changed to 3-21 by Part B, effective with the 1990-91 school year.

The term, individuals with disabilities, was defined as those individuals evaluated in accordance with regulations as having mental retardation, hearing impairments including deafness, speech or language impairments, visual impairments, including blindness, serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, specific learning disabilities, deaf-blindness, or multiple disabilities, who because of those impairments require special education and related services.

A free appropriate public education was defined to mean special education and related services which are provided at public expense, under public supervision and direction and without charge; meet the standards of the State Educational Agency, including the requirements of this regulation; include preschool, elementary school, or secondary school education in the state involved; and, are in conformity with an IEP that meets the requirements of 34 CFR Sections 300.340-300.350.

Least restrictive environment (LRE) was defined to mean that to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are non-disabled; and that special classes or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

The "Non-Academic Services" section, under the Free Appropriate Public Education component of IDEA requires the public agency to "provide non-academic and extracurricular services and activities in such manner necessary to afford children with disabilities an equal opportunity for participation in those services." One of those non-academic services is transportation. This continues the emphasis to integrate children with disabilities as much as possible with children without disabilities.

**The Education of All Handicapped Children's Act (EAHCA) Amendments of 1986** included **Part H** among its provisions. Part H addressed the need of early intervention for infants and toddlers. States were offered financial incentives to establish an extensive, statewide service among numerous agencies that would be provided to children from birth through two years of

age. In addition, it lowered the age of eligibility for special education and related services for all children with disabilities to age three, and required that all eligible children receive early intervention services. This law also required that services be specified in the individualized family Service Plan (IFSP).

**The Individuals With Disabilities Education Act Amendments of 1991** reauthorized **Part H**. The reauthorization required states participating in the program to coordinate services and funding sources for the provisions of early intervention services to infants and toddlers from birth through two years old. Transportation includes the cost of travel and related costs that are necessary to enable an eligible child and the child's family to receive early intervention services (i.e., mileage, travel by taxi, common carrier or other means).

**The Handicapped Children's Protection Act of 1986** and the EAHCA Amendments of 1986 amended The Education of The Handicapped Act of 1975 (P.L. 94-142). With this change, disputes over special education and related services, including issues involving transportation costs, could result in the recovery of reasonable attorney fees by parents if the matter was taken to court and the parents prevailed.

The **Americans with Disabilities Act of 1990** is comprehensive, far reaching legislation aimed at removing the barriers which deny individuals with disabilities an equal opportunity to share in and contribute to the vitality of American life. The ADA creates a higher standard of non-discrimination, regardless of whether federal funding is received. The ADA means access to jobs, public accommodations, government services, public transportation and telecommunications - full participation in, and access to, all facets of an individual's community.

ADA is intended to protect qualified individuals with disabilities from discrimination on the basis of disability in the services, programs or activities of all state and local governments. Additionally, it extends the prohibition of discrimination on the basis of disability established under Section 504 of the Rehabilitation Act of 1973.

**The Individuals with Disabilities Education Act (IDEA) Amendments of 1997** a reauthorized IDEA, was enacted as Public Law 105-17 in 1997. The reauthorized law makes sweeping changes for the first time in the 22-year history of IDEA and its predecessors. The law is restructured into four major areas now. They are Part A - General Provisions; Part B - Assistance for the Education of all Children with Disabilities; Part C - Infants and Toddlers with Disabilities (replaces former Part H); and Part D - National Activities to Improve the Education of Children with Disabilities (replaces form Parts C-G).

The 1997 reauthorization of IDEA is an attempt to remedy prior problems with the law, assure access, and improve results for students with disabilities. The law does the following: raises expectations for students with disabilities; increases parental involvement in the education of their children; clarifies the discipline procedures for students with disabilities; ensures that regular education teachers are involved in planning and assessing children's progress; includes children with disabilities in assessments, performance goals, and reports to the public; and supports quality professional development for all personnel who are involved in educating children with disabilities.

## STATE REGULATIONS

The following rules and regulations are from Sections 226.910 through 226.950 of 23 Illinois Administrative Code 226, the implementing regulation for the School Code, 105 ILCS, Article 14.

Section 226.910 — Each child who exhibits one or more exceptional characteristics as described in Article 14 of the School Code shall be eligible for special transportation. Such transportation shall be provided as the child's exceptionalities or the program location may require.

Section 226.920 — Vehicles utilized for special transportation shall be adapted to the specific needs of the children receiving this service.

Section 226.930 — Personnel responsible for special transportation shall be given inservice experiences which will enable them to understand and appropriately relate to exceptional children.

Section 226.935 — The provisions for transportation services and vehicle adaptation shall be included in the IEP.

Section 226.938 — When there is a change in the student's transportation from special bus to another mode of transportation such as regular bus or walking to school, this change shall be included in the IEP.

Section 226.940 — Special transportation shall be scheduled in such a way that a child's health and ability to relate to the educational experiences provided are not adversely affected. Every effort should be made to limit the child's total travel time to not more than one (1) hour each way to and from the special education facility.

Section 226.950 — The special education student's arrival and departure times shall ensure a full instructional day as provided for in the IEP.

Section 226.960 — When a student is placed in a residential facility in accordance with these regulations, the school district shall provide transportation services for the initial placement in the facility and for the return home at the close of the school term which is applicable to the student's placement. In the event the school district assumes responsibility for transportation arrangements, it shall provide reasonable notice to parents of departure dates and times. It shall, in all instances, submit notification to the parents within 48 hours of completing those arrangements. The mode(s) of travel and degree of support and supervision to be provided shall be included in the IEP. The school district shall also provide transportation services in accordance with the following criteria:

- a) The school district shall provide transportation services for one round trip home, usually at a midterm break or at another time as mutually agreed by the school district and the parents, and at such additional times as the facility is to be temporarily closed.

- b) The school district shall provide round trip transportation services at any time that the school district seeks additional diagnostic assessments of the student, if a student who is over eighteen (18) seeks to be present during a multi-disciplinary conference or a due process hearing, or if the parent wishes the student to be present during a due process hearing.
- c) The school district shall provide round trip transportation services for emergency reasons in cases of serious illness of the student or of death or imminent death of an individual in the student's immediate family. Immediate family shall be understood to mean a parent, a grandparent, a sibling, or any person who resides in the student's immediate household. If the school district questions the severity of an illness of the student or an immediate family member, it may require the opinion of a licensed physician to corroborate the severity of the illness.
- d) The school district may also provide transportation services to encourage family contacts and/or to reintegrate the student in the home and the home community. The school district shall have the authority to determine, upon consultation with the parents, when transportation is appropriate for these reasons and shall incorporate this decision with the specific reasons in the student's IEP.
- e) Reimbursement from the State Board of Education for transportation services in relationship to residential placements shall be authorized when the school district reports that one or more of these criteria have been met.

(Source: Title 23: Education and Cultural Resources, Subchapter F: Instruction for Specific Student Populations, Part 226, Special Education, May 10, 1995 )

(Also see Appendices B and C)

## **SECTION IV**

## **DISCIPLINE**

## DISCIPLINE ON THE BUS

IDEA guarantees students with disabilities the right to a free appropriate public education which includes transportation as a related service if required on the IEP.

Discipline procedures apply when the behavior is not anticipated and are implemented to maintain order. Procedures apply to all students including students with disabilities unless there is a specific statement in the student's IEP supporting why the student cannot be held responsible for abiding by the regular discipline code of conduct.

If a student with a disability has a behavioral intervention plan, transportation staff should implement the behavioral intervention plan. Further information regarding the specific provisions that apply to the discipline of students with disabilities is included in Appendix D.

### Helpful Suggestions

Transportation personnel are very concerned with maintaining a safe school bus environment as they serve an increasing number of children with disabilities. **The bus driver's primary responsibility is the safe operation of the moving vehicle.** Any distraction can lead to a traffic accident. IEP teams should consider the implications of a student's behavior which may affect the safe operation of the school bus.

It is important to find out if the child understands that her/his actions are inappropriate or unsafe. It may be that the behavior is related to the particular disability and is not willful misbehavior. If the disability is at the root of the child's behavior, discipline may not be appropriate. Students with emotional disorders will usually have a behavior modification program in place at home and school. This program should be extended to the bus ride environment, and the driver and aide/monitor need to understand how to follow the program.

It is also important to understand why students are acting as they are. Corrective steps geared to the student's particular situation should be implemented. School personnel and the family must be involved in solving any behavior problems on the school bus. It is important to get involved with the school and the family as soon as behavior problems occur. If behavior of a student is an ongoing problem, an appropriate behavior program could be written into the child's IEP. By doing so, the teachers, parents, driver, and all other service providers agree on the course of action that must be taken.

**Praise and patience are two keys to good discipline.** Children respond better to praise for good behavior than to punishment for breaking the rules. Praise is usually a reward. Food, however, should not be used as a reward. Not only would this encourage eating on the bus, but the student may have food allergies or could choke while eating. **Smiles and kind words often work.** What works best is usually individually determined—what works for one child may have a negative effect on another. Additionally, a driver and/or a monitor/aide may choose to acknowledge appropriate passenger behavior by issuing a reward certificate to the student which may become part of the student's educational record. (See sample in Appendix G.)



**Patience is needed with children with disabilities as it is with all children.** Some children with disabilities may have limited memory or attention spans because of conditions that cannot be seen. Therefore, instructions and praise may need to be repeated frequently. Having written rules with pictures may help. For some students, it helps to give directions in short phrases, only one or two instructions at a time.

School districts should establish procedures for bus drivers to report discipline infractions by any student. Discipline infractions should be reviewed by the IEP team as necessary to determine if additional assessments are required. Should the IEP team determine that the behavioral management plan will include the regular bus, drivers and/or monitors/aides must follow the behavioral management plan agreed upon in the IEP team meeting. A student's need for special transportation should be reviewed at least annually by an IEP team—more frequently if the need arises.

## **SUSPENSION**

A special needs student may be suspended from school and/or transportation services for no more than ten (10) days during a school year. The student may be suspended for up to 10 days even if the behavior is related to the disability. The student may be suspended for more than 10 days if the behavior is not a manifestation of the disability, but the district must continue to provide special education services. This means the district may have to provide alternate transportation for a student who is suspended from the regular or special education bus. A bus suspension would be counted as a day of suspension if the student's IEP calls for transportation as a related service and the district does not provide another means of transportation. If the student's IEP does not include transportation as a related service, then a suspension from the bus would not count as a day of suspension. The parents would have the same obligation to get the child to school as any non-disabled child who has been suspended from bus transportation.

According to the provisions of the 1997 IDEA Amendments, students with disabilities will be disciplined in a manner consistent with non-disabled students, provided their actions are not related to their disability. School personnel will be allowed to move students to an alternative setting or suspension for up to 10 school days, and to an alternative educational setting for up to 45 days in case of weapon or drug violations. Permanent cessation of educational services is prohibited. A hearing officer, in addition to the courts, may order a change in placement for up to 45 days.

**NOTE:** See Additional Resources in Appendix D and F.

## **SECTION V**

# **STUDENT DISABILITY CATEGORIES**

## STUDENT DISABILITY CATEGORIES

It is important that transportation personnel become knowledgeable of the characteristics of each disability category remembering that the descriptions of a certain disability do not apply uniformly across all children within a disability category. The individualized education program as developed by the IEP committee will address specific needs of children with disabilities.

To be disabled under IDEA, a student must have certain characteristics which adversely affect educational performance and must need special education and related services. There are thirteen categories of disabilities used in accordance with Illinois regulations.

**Autism:** The child has a developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age three, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has a behavior/emotional disorder.

**Behavior/Emotional Disorder:** The child exhibits one or more of the following characteristics over an extended period of time and to a marked degree, that adversely affects educational performance even after supportive assistance has been provided. The student must demonstrate: 1) an inability to learn which cannot be explained by intellectual, sensory, health, cultural or linguistic factors; 2) an inability to develop or maintain satisfactory interpersonal relationships with peers and adults; 3) inappropriate types of behavior or feelings under normal circumstances; 4) a general pervasive mood of anxiety, unhappiness or depression; or 5) a tendency to develop physical symptoms or fears associated with personal or school problems.

**Deaf-Blind:** The child has concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental, educational, vocational and rehabilitation problems that he/she cannot properly be accommodated in special education or vocational rehabilitation programs either for the hearing impaired or the visually impaired. The eligibility criteria include a visual impairment which is defined as corrected visual acuity poorer than 20/70 in the better eye, restricted visual field of 20 degrees or less in the better eye, cortical blindness and/or no apparent response to visual stimulation; and a hearing impairment which is defined as a sensorineural hearing loss or a permanent conductive hearing loss with aided sensitivity of 30 DB or worse bilateral.

**Developmental Delay:** This code may be used only for children ages birth through five who have one or more disabilities as defined in this section and who are experiencing delay in at least one of the following domains: physical development, cognitive development, communication development, social and emotional development, or adaptive development.

**Health Impairment:** The child exhibits a health impairment, either temporary or permanent, which interferes with his/her learning and/or requires adaptation of the physical plant.

**Hearing Impairment:** The child's residual hearing is not sufficient to enable the student to understand the spoken word and to develop language, thus causing extreme deprivation in

learning and communication; or he/she exhibits a hearing loss which prevents full awareness of environmental sounds and spoken language, limiting normal language acquisition and learning achievement.

**Mental Impairment:** The child's intellectual development, mental capacity, adaptive behavior, and academic achievement are markedly delayed. Such mental impairment may be mild, moderate, severe or profound. The categories of trainable mentally handicapped (TMH), educable mentally handicapped (EMH), and severe/profound mentally handicapped have been collapsed into the mental impairment category.

**Multiple Impairment:** The child exhibits two or more impairments, severe in nature or total impact which significantly affect his or her ability to benefit from the educational program.

**Physical Impairment:** The child exhibits a physical impairment other than hearing or vision, either temporary or permanent, which interferes with his/her learning and/or which requires adaptation of the physical plant.

**Specific Learning Disability:** The child exhibits a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or do mathematical calculations. The term includes such conditions as perceptual disabilities, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing or motor disabilities, of mental impairment, of emotional disturbance, or of environmental, cultural or economic disadvantage.

**Speech and/or Language Impairment:** The child exhibits deviations of speech and/or language processes which are outside the range of acceptable variation within a given environment and which prevent full social or educational development.

**Traumatic Brain Injury:** The child has an acquired injury to the brain caused by an external physical force, occurring after the perinatal period, that adversely affects a child's educational performance. It is not medically degenerative or congenital. The student must demonstrate impairment in one or more of the following areas: cognitive functioning, communication, social/emotional, sensory/perceptual, motor, adaptive behavior. The term does not apply to brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma.

**Visual Impairment:** The child's visual impairment is such that the student cannot develop his/her educational potential without special services and materials.

## **SERIOUS MEDICAL CONDITIONS**

Special education transportation drivers must meet all the training and orientation requirements for regular school bus drivers. Personnel associated with the transportation of these students should receive inservice at the school district or joint agreement level in addition to the training mandated to the Regional Superintendents as per 23 Illinois Administrative Code, Chapter I.S. 275.90, Subtitle A, subchapter h. Such inservice workshops enable drivers or aides to develop an added awareness of the various emergencies which may occur enroute. The training

experience should include specifics on the most effective and efficient ways in which to handle and cope with situations common to students with disabilities. Some of the conditions which need attention ranging from the awareness level to the need for specific direct-care staff training are as follows:

### **Seizures/Convulsions**

Some special education students, in addition to their disabling condition, are particularly prone to seizures, making seizures the most common medical problem a driver and/or paraprofessional may face on a special education bus.

Seizures occur when there are sudden, brief changes in how the brain works. During a seizure a student's consciousness, movement, and/or actions may be changed for a short period of time.

### **Spina Bifida and Spinal Cord Injuries**

Spina Bifida is caused by a malformation or incomplete formation of the spinal cord, occurring before birth. Spinal cord injuries are usually caused by traumatic injury (car accident, etc.) to the spinal cord. Both of these result in partial or complete paralysis of the muscles of the trunk or legs (paraplegic). Sometimes the arms are also involved (quadriplegic).

### **Osteogenesis Imperfecta (Brittle Bone Disease)**

These students may suffer from multiple fractures if minor pressure or stress is imposed.

### **Muscular Dystrophy (MD)**

MD involves the deterioration and wasting away of muscle tissue on the outside of the body frame. MD usually begins at the shoulders and hips and progresses out to the hands and feet. Children usually walk until about age eight or nine years until weakness forces them into a wheelchair.

### **Downs Syndrome (Mongolism)**

This is a syndrome accompanied by varying degrees of limited intellectual capacity. It is caused by a genetic malformation at conception.

### **Cerebral Palsy (CP)**

Cerebral Palsy is caused by brain damage occurring before, during, or after birth. There are three basic types: Athetoid, Ataxic, and Spastic. Varying degrees and combinations of CP are found with possible seizure problems. Possible lower mentality when seizure conditions are present.

Athetoid - Usually these people are loose, floppy, or disjointed looking with excessive, uncontrolled movements. Balance is poor and they may have tremors in hands or legs. May be walking, or need a walker or wheelchair. Often delightful, very friendly, and intelligent. May have trouble speaking clearly.

Ataxic - Similar to athetoid. Have poor coordination and a disturbed sense of balance and depth perception. They may look drunk and walk with their legs far apart and their arms out for balance.

Spastic - Stiff, tight, and slow moving. They cannot respond quickly, so give them enough time to follow directions. Often afraid of moving and have poor balance. If in a wheelchair, they might sit stiff and extended, falling to one side. If walking, may walk with stiff, crossed legs or up on toes.

### **Arthritis (Juvenile)**

Juvenile arthritis causes painful, inflamed joints. Very stiff and slow moving. Poor posture due to developed deformities.

## **EMERGENCY MEDICAL CONDITIONS**

The following list of serious medical emergencies which require immediate attention is adapted with permission from the Colorado State Pupil Transportation Unit.

### **Anaphylactic Shock**

This a major medical emergency. Extreme allergic reaction to bee stings, medicine, etc. The smooth muscles in the respiratory system close off so the victim is not able to get air in and out of lungs.

### **Asthma**

Asthma can be a serious medical emergency. An asthma attack can sometimes be brought on by excitement. Passenger needs good ventilation while in transit.

### **Cystic Fibrosis**

These people may have breathing and heart problems. If they sweat a lot, they will suffer serious salt depletion which is a medical emergency.

### **Diabetes**

An insulin reaction is a serious medical emergency. Symptoms are anxiety, headache, blurred vision, hunger, abdominal pain, profuse perspiration, tremulousness, disorientation, slurred speech, and seizures. If the person appears to be going into insulin shock, some form of easily digestible sugar should be given, for example, sugar, orange juice, soda pop or candy.

### **Heart, Congenital Malformation**

Congenital heart malformation manifests itself in impaired walls or valves of the heart which cause malfunction and progressive damage. Plan for emergency transit or assistance if heart fails.

## **Hemophilia**

Hemophilia is a disease of the blood where it fails to clot and abnormal bleeding occurs. When a head or neck injury is sustained, this becomes a top medical priority. Passenger may stop breathing or rapidly sustain brain damage.

## **Juvenile Arthritis**

Victims will not have good protective reflexes when they fall. (Slower blood clotting time as well as possible heart failure.)

## **Kidney and Urinary Tract Disease**

If the passenger is on dialysis, he/she should not be given any fluids and may be on a special diet. Be aware of shunt drainage tubes that may not be exposed.

## **Leukemia**

Leukemia patients may have a tendency to vomit while on chemotherapy. (Tend to be anemic and bleed easily.) Bones may be more fragile.

## **Osteogenesis Imperfecta**

This is brittle bone disease. Bones can break from just being touched too hard. Use extreme caution whenever handling.

## **Pregnancy**

In an accident, if the pregnancy is threatening to terminate, there may be hemorrhaging. Watch for symptoms of shock.

## **Shunt**

A shunt is a tube in the head, neck or other part of the body which drains excess fluid. Serious medical problems may arise if shunt is bumped or pressure applied to area.

## **Tracheotomy**

If the tracheotomy tube becomes plugged, person will not be able to breathe. Try to get her/him to cough. If possible, keep passenger away from area where there is likely to be a lot of dust or debris in the air. If artificial respiration is required, breathe into the tracheal tube and close mouth and nose.

Again, transportation staff should be involved in the IEP process when special equipment and/or adaptive devices are indicated for the care and safety of the student. These situations might include, but are not limited to, apnea monitors, gastrointestinal feeding tubes, supportive head devices, helmets, oxygen, respirators, shunts, strollers, suction equipment, tracheotomy tubes, wheelchairs with and without attachments, other mobile seating equipment, and companion animals.

**NOTE:** See Appendix E for additional information.

## **SECTION VI**

# **UNIVERSAL PRECAUTIONS FOR PREVENTION OF THE SPREAD OF INFECTIOUS DISEASES BY BODY FLUIDS**

(This section was excerpted from the Illinois School Bus Driver Training Curriculum and is included here to provide an informational resource.)



## UNIVERSAL PRECAUTIONS FOR PREVENTION OF THE SPREAD OF INFECTIOUS DISEASES BY BODY FLUIDS

### Introduction

As sure as the sun comes up every day, children end up with scraped knees, cuts and bruises. Students of all ages hurt themselves on the playground, in the classroom, and on the playing field. As a professional in our educational system, you need to be aware of the potential danger of bloodborne pathogens.

The Occupational Safety and Health Administration (OSHA) has created a standard that provides you and your school system with a method of working together to substantially reduce the risk of contracting a bloodborne disease on the job. The standard covers anyone who can reasonably anticipate contact with blood or potentially infectious body fluids on the job.

In an educational setting, the school system is required to identify the personnel whose job duties expose them to blood and potentially infectious body fluids. Not every educator is occupationally exposed to bloodborne pathogens while performing his or her job. However, it is important for everyone in an educational setting to understand the dangers of infection and the safe procedures to minimize risk.

### Bloodborne Diseases

Unfortunately, students are not immune to bloodborne diseases. You are in as much danger of infection from students you work with as from any other group in society.

Many diseases are carried by blood. The two most common are the hepatitis B virus (HBV) and the human immunodeficiency virus (HIV).

**HBV:** Hepatitis means “inflammation of the liver.” Hepatitis B virus (HBV) is the major infectious bloodborne hazard you face on the job. If you become infected with HBV,

1. You may suffer from flu-like symptoms that become so severe that you may require hospitalization;
2. You may have no symptoms at all so that you are unaware that you are infected;
3. Your blood, saliva and other body fluids may be infected; and
4. You may spread the virus to sexual partners, family members and even unborn infants.

Many people are unaware that they’ve been infected with HBV. However, HBV may severely damage your liver, leading to cirrhosis and almost certain death.

**HBV Vaccination:** One of the best ways to protect yourself from hepatitis B infection is to roll up your sleeve for a vaccination. If you are exposed to blood or other infectious materials as part of your job, the school system/company will make the hepatitis B vaccination available at no cost.

Administration of the vaccine should begin within 24 hours of exposure. It will be completed by three injections over a six-month period. Today's vaccines are safe and effective.

**HIV:** The human immunodeficiency virus attacks the body's immune system, causing the disease known as AIDS. Currently there is no vaccine to prevent infection. A person infected with HIV

1. May carry the virus without developing symptoms for several years;
2. May suffer from flu-like symptoms, fever, diarrhea and fatigue;
3. Will eventually develop AIDS; and
4. May develop AIDS-related illnesses including neurological problems, cancer and other opportunistic infections.

### **Cleaning Up Body Fluid Spills**

HIV is transmitted primarily through sexual contact, but also may be transmitted through contact with blood and some body fluids. HIV is not transmitted by touching or working around people who carry the disease.

The following procedures for cleaning up body fluid spills (blood, feces, urine, semen, vaginal secretions, vomitus) should be used at all times regardless of the infectious disease status of personnel or students.

- A. Wear disposable or utility gloves. When gloves are not available, or unanticipated contact occurs, hands and other affected areas should be washed with soap and running warm water immediately after contact when at all possible. Towelettes with disinfectant can be used until thorough washing is possible.
- B. Clean and disinfect all hard, soiled, washable surfaces immediately. Remove soil before applying disinfectant.
  1. **Small Spills**  
  
Use paper towels or tissues to wipe up soiled areas. After soil is removed, use clean paper towels, soap and water or disinfectant wash to clean the area. Dispose of paper towels in a plastic bag. Disinfect the area.
  2. **Large Spills**  
  
Apply commercial sanitary absorbent agent on soiled area, if provided, while in transit. After soil is absorbed, sweep all material into a plastic bag, taking care not to create any dust emissions. Disinfect area with a cleaning solution.
- C. Remove gloves and place into the plastic bag with the waste and other cleaning materials. Upon returning to the bus garage or bus lot, remove the plastic bag and dispose of it in the manner prescribed by the employer. Also, alert maintenance personnel to thoroughly clean and disinfect the bus.

- D. The driver should wash his/her hands with soap and running warm water.

### **Playing It Safe**

Even when you play it safe, accidents may sometimes happen. If you are exposed, immediately report the incident to your supervisor. If you consent, your employer will provide you with

1. A confidential medical evaluation,
2. Blood tests,
3. Post-exposure preventive treatment if available, and
4. Follow-up counseling.

Before you assume a job with occupational exposure, your school system should provide you with a free training program during working hours and annually thereafter.

### **Workplace Transmission**

As different as the outcomes of bloodborne diseases may be, the way they are transmitted in the workplace is essentially the same. HBV, HIV, and other pathogens may be present in blood and other materials such as

1. Semen and vaginal secretions,
2. Torn or loose skin, and
3. Unfixed tissue or organs.

Bloodborne pathogens can cause infection by entering your body in a variety of ways including

1. Open cuts;
2. Nicks;
3. Skin abrasions;
4. Dermatitis;
5. Acne; and
6. The mucous membranes of your mouth, eyes or nose.

Special-education employees should take extra caution while working with severely disabled children. Some disabled children

1. May be more vulnerable to injury,
2. May have special medical needs, or
3. Are more dependent on adults for personal care.

## **General Housekeeping Rules**

Here are some general rules:

All equipment and environmental working surfaces must be cleaned and decontaminated with an appropriate disinfectant or a 10 percent bleach-to-water solution as soon as possible after contact with blood or other potentially infectious materials.

Never pick up broken glass with bare hands. Always wear gloves, use tongs or a broom and dustpan.

Place contaminated sharp objects and other potentially infectious waste in labeled or color-coded, leak-proof, puncture-resistant containers that are closeable and easily accessible to those who use them. Infectious waste containers should not be allowed to overfill.

Handle contaminated laundry as little as possible and with minimal agitation. Place soiled laundry in labeled or color-coded, leak-proof bags or containers without sorting or rinsing.

Bins, pails, cans and similar receptacles that are reused and have a reasonable likelihood for becoming contaminated with blood or other infectious materials shall be inspected and decontaminated on a regularly scheduled basis.

## **Glove Removal**

Gloves should be removed when they become contaminated or damaged, or immediately after finishing the task. You must follow a safe procedure for glove removal, being careful that no pathogens from the soiled gloves contact your hands.

1. With hands gloved, peel one glove off from top to bottom and hold it in the gloved hand.
2. With the exposed hand, peel the second glove from the inside, tucking the first glove inside the second.
3. Dispose of the entire bundle promptly.
4. Never touch the outside of the glove with bare skin.
5. Wash your hands with soap and running water as soon as you possibly can every time you remove your gloves.

## **Good Housekeeping**

Good housekeeping protects you and the students. It should be everyone's responsibility.

Your facility's Exposure Control Plan will list specific methods and regular schedules for cleaning environmental surfaces possibly contaminated with infectious materials.

## **Accidental Injury**

You can become infected by accidentally injuring yourself with a sharp object that is contaminated. Sharp objects may be

1. Broken glass,
2. Sharp metal,
3. Needles,
4. Knives, and
5. Exposed ends of orthodontic wires.

## **Indirect Transmission**

Bloodborne diseases can also be transmitted indirectly.

This happens when you touch an object or surface contaminated with blood or other infectious materials and transfer the infection to your

1. Mouth,
2. Eyes,
3. Nose, and
4. Open skin.

Contaminated surfaces are a major cause of the spread of hepatitis. HBV can survive on environmental surfaces dried and at room temperatures for at least one week.

## **Exposure Control Plan for Student Transportation Service**

OSHA's Bloodborne Pathogen Standard requires your school system/company to create and make available to every employee an Exposure Control Plan. The ECP will

1. Identify the personnel covered by the standard,
2. Analyze the potential hazards of each job description, and
3. Determine what measure will be taken to reduce the risk of exposure to bloodborne pathogens on the job.

The keys to preventing infection are

1. Understanding the dangers you face, and
2. Knowing how to protect yourself.

## **Universal Precautions**

Most approaches to infection control are based on a concept called Universal Precautions. It requires that you consider every person, all blood, and most body fluids to be potential carriers of infectious disease.

Many people who carry infectious disease have no visible symptoms and no knowledge of their condition. HIV and HBV infect people from

1. All age groups,
2. Every socioeconomic class,
3. Every state and territory, and
4. Rural areas and inner cities.

## **Resuscitation Devices**

The mechanical emergency respiratory devices and pocket masks are designed to isolate you from contact with a victim's saliva and body fluids. Avoid using unprotected mouth-to-mouth resuscitation. Students or co-workers may have blood or other infectious materials in their mouth and may expel them during resuscitation.

## **Gloves**

Gloves are the most widely used and basic form of personal protective equipment. You must wear gloves when it is reasonably anticipated that you may have hand contact with

1. Blood,
2. Any potentially infectious materials, and
3. Mucous membranes or non-intact skin.

Gloves may be made of latex or vinyl when used for first-aid procedures. Heavy-duty utility gloves should be used for housekeeping. If you are allergic to latex or vinyl gloves, there are hypo-allergenic gloves, glove liners, powderless gloves, or other alternatives that your school system can make available.

Utility gloves may be decontaminated or reused if they are not cracked, peeling, torn or punctured. They must otherwise offer a barrier of protection. Since gloves can be torn or punctured, cover any hand cuts with bandages before putting on gloves.

Replace disposable single-use gloves as soon as possible if they are

1. Torn,
2. Punctured,
3. Contaminated, and
4. No longer offer effective barrier protection.

Never wash or decontaminate single-use gloves for reuse.

If you are faced with cleaning up blood or body fluids,

1. Wear appropriate personal protective equipment;
2. Use a solution of one part bleach to ten parts water and
3. Disinfect mops and cleaning tools after the job is done.

Your school system/company will issue personal protective equipment or make it readily accessible in your work area. In addition, your school system/company will maintain, replace or dispose of any protective equipment at no cost to you.

### **General Rules on Personal Protective Equipment**

You and your employer must work together to ensure that your protective equipment does its job.

1. You must be trained to use the equipment properly.
2. The equipment must be appropriate for the task.
3. The equipment must fit properly, especially gloves.
4. All equipment must be free of physical flaws that could compromise safety.
5. You must use appropriate protective equipment each time you perform a task involving potentially infectious materials.

If, when wearing equipment, it becomes penetrated by blood or other infectious materials, remove it as soon as possible.

Using Universal Precautions resolves this uncertainty by requiring you to treat all human blood and body fluids as if they were known to be infected with HIV, HBV, or other bloodborne pathogens. You can't identify every person who may transmit infection. Yet you can't afford not to take every precaution since it takes just one exposure to become infected.

### **Reducing Your Risk**

Five major tactics reduce your risk of exposure to bloodborne pathogens on the job

1. Engineering controls,
2. Work practice controls,
3. Personal protective equipment,
4. Housekeeping, and
5. Hepatitis B Vaccine.

Alone, none of these approaches is 100 percent effective. They must be used together, like five barriers against infection.

### **Engineering Controls**

Your school system/company will provide physical or mechanical systems that eliminate hazards at their source. Their effectiveness usually depends on you. Make sure you know what engineering controls are available from your employer and use them.

For example, appropriate containers must be used for disposing of regulated waste and towels soaked with blood or body fluids.

## **Work Practice Controls**

Work practices are specific procedures you must follow on the job to reduce your exposure to blood or other potentially infectious materials. The school system/company will identify specific personnel to deal with bloodborne hazards on a regular basis. These employees may include

1. A person trained in bloodborne pathogens safety to administer first aid treatment to students or
2. A custodian or trained person responsible for cleaning up all body fluid spills.

## **Handwashing**

One of the most effective work practice controls is also one of the most basic--wash your hands. If infectious material gets on your hands, the sooner you wash it off, the less chance you have of becoming infected. Handwashing keeps you from transferring contamination from your hands to other areas of your body or other surfaces you may contact later. Every time you remove your gloves, you must wash your hands using a non-abrasive soap and running water as soon as you possibly can. Also, if skin or mucous membranes come in direct contact with blood, wash or flush the area with water as soon as possible. Where handwashing facilities are not available such as a school bus, your employer should provide an antiseptic hand cleanser or antiseptic towelettes as prescribed by OSHA standards. Use these as a temporary measure only. You must still wash your hands with soap and running water as soon as you can.

## **Personal Hygiene**

Here are some controls based on personal hygiene that you must also follow:

1. Minimize splashing, spraying, spattering and generation of droplets when attending to an injured student or co-worker, especially where blood is involved.
2. Do not eat, drink, smoke, apply cosmetics or lip balms or handle contact lenses where there is a reasonable likelihood of occupational exposure.
3. Don't keep food and drink in refrigerators, freezers, shelves, cabinets or on counter tops or bench tops where blood or other potentially infectious materials are present.

## **Personal Protective Equipment**

The type of protective equipment appropriate for your job varies with the task and the degree of exposure you anticipate. Equipment that protects you from contact with blood or other potentially infectious materials may include

1. Gloves,
2. Lab coats,
3. Face shields,



4. Protective eye wear,
5. Masks,
6. Mouthpieces, and
7. Resuscitation bags or other ventilation devices.

## **SECTION VII**

### **LOADING, UNLOADING AND EMERGENCIES**

## LOADING AND UNLOADING STUDENTS WITH SPECIAL NEEDS

Transporting students with special needs to and from school safely each day is a team effort. Loading and unloading the school bus is usually taken for granted, but these operations can present a great many problems if not done properly. Listed below are several considerations that each driver should be aware of to insure the safe loading and unloading of the students with special needs. Since these students often have varying levels of ability, special care and consideration should be given to their loading and unloading.

1. Always use the stop arm and flashers when loading and unloading students. (625 ILCS 5/11-1414; Illinois Vehicle Code)
2. Often students with special needs require more time to get from their home to the bus. For this reason, when loading students with special needs, activate the stop arm only when the student is in sight or being loaded onto the school bus.
3. Remind all students that even though the stop arm and flashers may be activated, drivers of other vehicles don't always stop. Students who ride the school bus should always be watching for traffic when approaching and leaving the school bus.
4. Except in an emergency, never leave a child alone on the bus. Also, no bus team member should ever leave a student with special needs outside the bus unattended. Students should remain either in the school or on the school bus until it is their time to be moved safely to or from the bus.
5. When loading or unloading a student with a physical disability, especially one in a wheelchair or other mobile seating device, the driver should always try to park the bus on level ground. Set the parking brake and apply wheel chocks if required. This is necessary as the bus must be running to activate the hydraulic lift.
6. Load all students, ambulatory and nonambulatory, on the curb side of the street. Never allow any student to step out of the bus into a lane of traffic. If the loading and/or unloading process requires a student to cross a roadway, the driver should direct the student from the bus when it is safe to cross. The driver should never stop the bus in the middle of the roadway to pick up or discharge a student. *If another bus team member is present on the bus, he/she should personally walk this student across the street to a safe location, generally to a responsible adult.*
7. When loading a student with a physical disability in a wheelchair, the driver should
  - a. always back the chair onto the lift,
  - b. always set the chair brakes before lifting it onto or off a bus,
  - c. keep one hand on the chair at all times,
  - d. always face the student being loaded,

- e. be sure the safety barrier at the front of the lift is activated when the lift is in an “up” position.
- 8. Set the chair brakes and, whenever possible, use a four-point tie-down system to secure the wheelchair and the student. The tie-down system should include lap belt, shoulder strap(s), and/or wheelchair tie downs as appropriate. Whenever there is doubt, consult the student’s physical or occupational therapist or special education specialist.
- 9. When loading students who ride in wheelchairs, load only one at a time so no one is ever left unattended.
- 10. As appropriate, and as the law provides, insist that each student on the bus wear a seat belt or safety vest when the bus is in motion.
- 11. In many situations, the driver’s responsibility is the operation of the bus and any lift apparatus. If another bus team member is present, this person is usually responsible for all of the students on the bus. However, **the driver is still responsible for the overall safety of everyone on the bus**; therefore, the driver should make a final check of all wheelchair belts and straps before leaving a student’s pick-up location. Remember, whenever there is an accident, **the driver of the school bus** is always responsible.
- 12. Messages from parents or guardians to the school must always be in writing; never leave anything to memory.
- 13. Make sure any medication you are asked to deliver gets into the hands of an adult. Never carry medication to school for a student unless a note goes with it. The note should contain the name of the school, teacher, parent, and bus number.

### **Suggested Evacuation of Special Needs Students**

Transportation staff should have an emergency evacuation plan which considers the individual capabilities and needs of each student, the type of behavior which might be exhibited during an emergency evacuation, and the type of wheelchair or support equipment being used for students.

### **Issues to Consider in Establishing an Evacuation Plan**

- 1. Which students could help and to what extent.
- 2. How to deal with individual emergencies such as seizures during the evacuation process.
- 3. Whether students should be evacuated in their wheelchairs or removed from their wheelchairs before evacuation. Exercise caution: some students have catheters or are tube fed. The hoses or tubes have to be anchored somewhere and are sometimes anchored to the wheelchair. To evacuate them bodily might rip hookups to the student which could cause severe internal problems.

4. How to disconnect or cut wheelchair securement and occupant protection equipment including belts, trays, and other support equipment.
5. Which students might run after evacuation so they can be evacuated last.
6. The length of time a student requiring life-support equipment or medical-care procedures can survive if such service is interrupted or delayed during the evacuation process.

### **Teaching Children What To Do in an Emergency**

It is important for children to know how to act during an emergency to prevent added injury or trauma. Instruct children to

1. Remain calm;
2. Follow the directions of the school bus driver;
3. Get off the bus swiftly but safely if instructed to evacuate;
4. Whenever possible, exit the school bus from the front service door and use the rear exit or other emergency exit only if it is safer to do so;
5. Move at least 100 feet from the school bus to a specific location designated by the driver; and
6. Keep all students together and report any injuries as soon as possible.

Children, parents and school staff need to have a clear understanding of the rules for keeping children safe.

Refer to the *Illinois School Bus Driver Training Curriculum* and the Student Transportation Resource Library for a thorough evacuation drill procedure.

## **APPENDICES**

**APPENDIX A**

**TERMS AND DEFINITIONS**

## TERMS AND DEFINITIONS APPLICABLE TO SPECIAL EDUCATION TRANSPORTATION

**ADA:** The Americans with Disabilities Act, PL 101-336, 42 USC 12101, *et seq.*

**Adaptive device:** Any item or piece of equipment used to increase, maintain, or improve functional capabilities of children with disabilities. Also known as *assistive technology device*.

**Aide:** See *attendant*.

**Assessment team:** A group of persons, including the parent or guardian of a student with disabilities, who develops a profile of the student in terms of his or her mental and physical functioning in order to determine the student's eligibility for special education. See also *MDC*.

**Assistive device:** See *adaptive device*.

**Attendant:** A person assigned to assist one or more individual student(s) with disabilities on a school bus or school vehicle. Also known as *aide* or *paraprofessional*. See also *monitor*.

**Child safety seat:** A restraint system meeting the requirements of FMVSS 213, generally intended for use by children under four years of age and forty pounds. Also known as *child restraint system* and *car seat*.

**Companion animal:** An animal trained to provide assistance for persons with disabilities; can be a guide animal, assistive animal, or service animal.

**Continuum of services:** The range of possible options, from least restrictive to most restrictive, available to students with disabilities for transportation services.

**DNR:** Do Not Resuscitate. An order from a parent, legal guardian, or court that prohibits the use of emergency measures to prolong the life of an individual.

**EHA:** The Education for All Handicapped Children Act, passed in 1975 as P.L. 94-142.

**Early intervention service:** Education and related services provided to infants and toddlers from birth through two years of age.

**Extended year service:** Transportation provided for students subsequent to the end of the traditional school year.

**FAPE:** Free Appropriate Public Education. Guaranteed by IDEA for all children with disabilities, it includes special education and related services, including transportation.



**FERPA:** The Family Educational Rights and Privacy Act of 1974, 20 USC 1232. Requires confidentiality of student records in public schools, but allows access to necessary information regarding student disabilities and/or health needs to those who have a need to know, including school bus drivers.

**Head Start:** Program initiated in 1965 to provide comprehensive child development services to preschool children of predominantly low income families.

**IDEA:** The Individuals with Disabilities Education Act, passed in 1990 as P.L. 101-476 (Part B) to replace the EHA.

**IEP:** Individualized Education Program. A plan including information for each child with disabilities required under P.L. 101-476 (Part B).

**IFSP:** Individualized Family Service Plan. A written plan similar to the IEP for the family of a child receiving early intervention services required under P.L. 102-119.

**Inclusion:** Integration of a student with disabilities into a regular classroom and onto a regular school bus. Also known as *mainstreaming*.

**Integrated child safety seat:** A child safety seat meeting the requirements of FMVSS 213 which is built into and is an integral part of a bench seat.

**Integrated restraint system:** A system in which the occupant restraint of an individual in a wheelchair/mobility aid connects directly to and is dependent upon the mobility aid's securement system's rear strap assemblies.

**Lap belt:** A Type 1 seat belt assembly meeting the requirements of FMVSS 209, intended to limit movement of the pelvis.

**Lap tray:** An accessory for a wheelchair or other mobile seating device, to offer support and convenience for the occupant.

**LRE:** Least Restrictive Environment. A concept embodied in IDEA which requires that children with disabilities be integrated as fully as possible into situations and settings with their nondisabled peers.

**Mainstreaming:** See *inclusion*.

**MDC:** Multi-Disciplinary Conference. A meeting at which eligibility for special education and related services is determined. See also *assessment team*.

**Medical support equipment:** Portable equipment used by students to maintain life functions, such as oxygen bottles, intravenous or fluid drainage apparatus.

**Medically fragile:** Refers to students who require specialized technological health care procedures for life support and/or health support.

**Mobility aid:** A wheelchair or other device, either battery-operated or manual, that is used to support and convey a person with a physical disability. Also known as *mobile seating device*.

**Monitor:** A person assigned to assist the driver on a school bus or school vehicle.

**Discipline:** A monitor whose primary responsibility is to control behavior of students on the bus.

**Safety:** A monitor whose primary responsibility is to ensure the safety of students getting on and off the bus and to check the loading zone before the driver pulls out.

**Occupant restraints:** A Type 2 seat belt assembly that meets the requirements of FMVSS 209, installed according to FMVSS 210 and used to secure the torso and pelvic area of a passenger in a motor vehicle or an occupant of a wheelchair/mobility aid.

**OCR:** Office of Civil Rights, an agency of the U.S. Department of Education.

**OSEP:** Office of Special Education Programs, an agency of the U.S. Department of Education.

**OSERS:** Office of Special Education and Rehabilitative Services.

**Parallel restraint system:** A system in which the occupant restraint lap belt anchors directly to the floor track or plates, and is independent of the wheelchair/mobility aid securement system.

**Part B:** Refers to the section of IDEA applicable to special education and related services for children with disabilities, and the implementing regulations at 34 CFR 300.

**Part H:** Refers to the section of the IDEA related to early intervention services for infants and toddlers, and the implementing regulations at 34 CFR 303. Changed to Part C in the 1997 reauthorization of IDEA.

**Related services:** Transportation and other supportive services that are required to assist a child with a disability to benefit from special education.

**Restraint system:** A generic term for one or more devices intended to secure and protect a passenger with or without a mobility aid in a vehicle, including seat belts, occupant restraints, child safety seats, safety vests, etc.

**Restraint/securement system:** See *securement and restraint system*.

**Safety vest/harness:** An upper torso restraint that supports and secures a child by attachment to the vehicle seat.

**Scooter:** A motorized mobility aid with three wheels, handle bar or tiller, and a swiveling seat.

**Seat belt:** A passenger restraint system incorporating lap belts or lap and shoulder belts and meeting the requirements of FMVSS 208, 209, and 210. Also known as *seat restraints*.

**Securement points:** Locations on the base or seat frame of the wheelchair/mobility aid where the securement system should be attached.

**Securement system:** The means of securing a mobile seating device to a vehicle in accordance with FMVSS 222, including all necessary buckles, anchors, webbing/straps, and other fasteners.

**Securement and restraint system:** The total system which secures and restrains both a wheelchair/mobility aid and its occupant. Also known as *WTORS*.

**Special education:** Specially designed instruction to meet the unique needs of a child with disabilities.

**Specially equipped school bus:** Any school bus designed, equipped, or modified to accommodate students with special needs.

**Stroller:** A lightweight folding mobility aid.

**Surrogate wheelchair:** A prototype which is subjected to impact tests.

**Tie-down system:** See *securement system*.

**Track seating:** Seating system in which seating units, including mobility aids, are secured to the vehicle structure by attaching them to tracks on the vehicle floors.

**Wheelchair:** A seating system comprised of at least a frame, seat, and wheels, for the support and mobility of a person with physical disabilities. Also known as *mobile seating device*.

## **APPENDIX B**

### **GENERAL QUESTIONS AND ANSWERS**

## QUESTIONS AND ANSWERS

**Q.** Is transportation required for all students with disabilities?

**A.** No. The decision to offer transportation as a related service to students with disabilities should be made when the student, because of his or her unique needs, cannot access regular transportation services. If a public agency determines that a student with a disability needs transportation to benefit from education, it must be provided as a related service at no cost to the student and parents. In all instances, each student's need for special transportation as a related service and the type of transportation to be provided are issues to be discussed and decided during the individualized education program (IEP) team meeting. The transportation arrangements agreed upon should be included in the student's IEP.

**Q.** What provisions are available for providing adaptive equipment to outfit regular buses requiring adaptations for transporting a student with disabilities?

**A.** State and federal special education funds may be used to purchase equipment required to support students receiving related services. When special transportation is a related service, supports required may be purchased using local, state, or federal special education funds. IDEA, Part B funds allow for the purchase of adaptive equipment. Retrofitting an existing bus with a lift would be an appropriate use of IDEA, Part B funds.

**Q.** If special transportation is required, (i.e., for medical/behavioral interventions), when should these situations be revisited? During the annual review? Should a time to re-evaluate be mentioned on the IEP?

**A.** All items on the IEP/IFSP, including related services, must be reviewed at least annually. If special transportation has been identified as a need for a student, one should not assume that these accommodations for behavior/medical purposes will remain unchanged. Such items may require more than an annual review by the IEP team. Such a review may be called when appropriate by a concerned member of the IEP team.

**Q.** When should transportation personnel be involved in the IEP meetings?

**A.** Transportation personnel should participate in the IEP/IFSP meetings whenever decisions regarding special transportation provisions as a related service are being made, especially when specific medical support or mobility equipment will be required or when inappropriate or challenging behaviors of the student will require monitoring or interventions during transportation. Transportation personnel would only be expected to participate in decisions directly relating to the student's transportation needs.

It would be unrealistic to assume that transportation services personnel could participate in every IEP/IFSP that discussed transportation as a related service; however, every effort should be made on both the part of the local districts and local transportation departments to communicate openly regarding IEP/IFSP issues prior to finalizing transportation decisions.

**Q.** How can district personnel be encouraged to check with transportation personnel to see what special equipment is available before putting transportation requirements in the IEP?

**A.** This could be accomplished by including transportation personnel on the IEP team for periodic consultation.

**Q.** If special transportation is to be regarded in the same manner as other related services, are goals and objectives/benchmarks required in the IEP?

**A.** The annual goals and short-term objectives/benchmarks in the IEP of a student with disabilities must provide a mechanism for determining that the totality of services provided is appropriate to the student's unique needs. This includes special education, related services, and supplementary aids and services. The purpose of the special transportation determines whether goals and objectives/benchmarks are required in a student's IEP. If special transportation is being provided solely to enable the student to travel to and from school, in and around school, and between schools, no goals and objectives/benchmarks are needed. If, however, instruction will be provided to enable the student to increase his or her independence or improve his or her behavior or socialization during travel, then goals and objectives/benchmarks must be included in the student's IEP to address the individual student's need to increase independence or improve behavior or socialization. However, since transportation is listed as a related service on the IEP, all behavioral goals written in other domains on the IEP could generalize to the time spent on the bus. It is not necessary to write separate behavioral goals for the classroom and the bus.

**Q.** If a district contracts with another district to provide educational services for a student, who is responsible for providing the transportation?

**A.** The sending district should negotiate this in its contract. If not covered by contract, the sending district is responsible for providing transportation services. This may be accomplished by paying an additional amount to the receiving district as agreed. In addition, districts contracting with private carriers for transportation services should consider the possibility of transporting students to other districts when negotiating contracts.

**Q.** Who is responsible for discipline on the bus?

**A.** Every district should have written transportation policy which includes disciplinary procedures. School bus drivers are limited as to how much action they can take. The ultimate discipline responsibility lies with the district.

**Q.** Can a regular education student be transferred to a special needs route due to a behavior problem?

**A.** Only students with disabilities who have an IEP may be assigned to a special education bus route. If a district puts a regular education student on a special education route, the route will then be redefined as a regular route and could only be claimed for regular transportation reimbursement.

**Q.** Will you transport to doctors' appointments?

**A.** The transportation services available to a student with disabilities will be dictated by the provisions of the IEP. Should the IEP direct and allow for this related service, then you may transport to a doctor's appointment or any other necessary and IEP-directed student activity.

**Q.** Can my child ride a different bus because of a conflict between the driver and my child?

**A.** Local policy will dictate how conflicts of this nature are handled.

**Q.** What are the rules for transporting students in adverse weather conditions?

**A.** See the Illinois School Bus Driver Training Curriculum.

**Q.** How can parents be better informed about route changes including school cancellations, vacations, etc.

**A.** This procedure should be included in the local district's written transportation policies which should be provided to parents in a transportation handbook. Districts should also consider using email, web sites, phone systems, and parent phone trees as methods of transmitting information to parents.

**Q.** Should the loading or unloading time length be different for special education students?

**A.** Refer to Section VII "Loading, Unloading and Emergencies" of this document. Length of time will vary based upon number and disabilities of students being loaded and unloaded.

**Q.** What can transportation personnel do if they get no support from the parent or school? Do you have any suggestions for getting more parental involvement?

**A.** This goes back to the IEP process and the involvement of parents, schools, medical and transportation personnel in meeting the needs of the students.

**Q.** What is the cost of providing transportation for special needs students?

**A.** The costs of special education transportation are reimbursed at a rate of 80% of allowable cost. Allowable costs are defined in 23 Illinois Administrative Code Part 120. The reimbursement amount is prorated if the appropriation is insufficient to match all claims.

**Q.** When is it appropriate to offer a parent reimbursement for transportation? Should this be listed on the student's IEP/IFSP?

**A.** Transportation as a related service must be provided at no cost to the parent. There may be certain situations when medical conditions are too severe or when the length of ride could be shorter if the student were to be transported in a personal vehicle. Districts should have a policy regarding these instances. The policy should make it clear to the parent that transport in a private vehicle is one of several options. The IEP/IFSP must reflect that parents will be transporting the student and will be reimbursed at the standard rate.

**Q.** When can I restrain a student and can I ever touch a student?

**A.** You should never restrain a student unless it is to protect yourself or a student from harm. Do not put your hands on a student if at all possible.

**Q.** What are the transportation obligations as they relate to Section 504 of the Rehabilitation Act of 1973 and temporary disability? Would a side-lift equipped bus be required for students who have major temporary physical impairments? Does the one and one-half mile limit make a difference?

**A.** A student covered under Section 504 will not have an IEP, but should have a 504 plan, and he or she is entitled to transportation. A good example of this would be a student in a regular school program who has a broken leg and is in a cast for a specified amount of time. Under Section 504, this student is considered temporarily impaired and is entitled to appropriate transportation. If the district does not have appropriate transportation available, e.g., does not have a lift equipped bus, then the district should provide other options for the student. Other options might include parent reimbursement for transportation or contracting with an outside agency to transport the student.

If the district denies the student transportation, it may be violating the student's rights under Section 504. The one and one-half-mile limit should not be a factor in determining if transportation is warranted.

**Q.** Does Section 504 also apply to students with chronic medical problems?

**A.** Yes. Under Section 504, special accommodations must be made for students who are in need of extra services, but who are not receiving special education services. If transportation services are provided to these students, they would be claimed as regular transportation.

**Q.** Is my child entitled to door-to-door service?

**A.** The IEP or IFSP team will determine the level of transportation services required by an individual student on an as needed basis. One such determination could be the need for curbside pickup. Frequently the curbside pickup points will be referred to as "door-to-door" service. This service should be referred to as "curb-to-curb" service. All factors regarding the delivery of services to the student will be discussed and finalized at the IEP meeting.

**Q.** Can my child be brought to the front door or another stop?

**A.** No. It is the parents' responsibility to meet the bus at the bus stop. Under special circumstances, a student may be dropped at another stop by written request and approval by the local school district.

**Q.** What is the responsibility of the district when parents are not present to meet students after school?

**A.** The district shall follow written policies and procedures when this occurs. The district should communicate these policies and procedures to parents before transportation begins. The content of these policies and procedures shall be approved by the local school board.



The district's responsibility is to provide transportation from and to pre-designated pick-up and drop-off points. These pre-designated points should be communicated to parents before the beginning of transportation services. Child care arrangements are the parent's responsibility. The district is encouraged to work closely with parents to ensure the safety of all students when selecting pick-up and drop-off points. The district should consult its legal representative regarding its policies and procedures related to leaving students at home unattended.

**Q.** Under what conditions can a district refuse to drop a student at an alternate location?

**A.** Districts shall develop policies and procedures which address this contingency. These policies and procedures should be communicated to parents before the start of transportation service. All changes should be submitted in writing and approved by local school officials prior to any changes in a student's transportation program.

**Q.** What can districts do when parents fail to meet their responsibility for receiving their child?

**A.** Policies and procedures should be established at the beginning of each school year. These should include actions the district will take if the parents fail in their responsibilities. The district shall advise parents of these policies at the beginning of transportation services and implement established procedures when parents establish patterns of neglect. These may include referrals to child welfare and social service organizations. Do not take a child to a police station.

**Q.** Can the pick up and drop off time be changed? The hours are inconvenient.

**A.** No. The bus route is designed to get your student to school on time in the safest and most economical way. All related services (including transportation) may be revisited at any time by the IEP team.

**Q.** Can a student's school day be shortened for transportation scheduling reasons?

**A.** Absolutely not. Section 226.950 of 23 Illinois Administrative Code states that the student's arrival and departure times shall insure a full instructional day unless there is a specific reason (usually medical) for a shorter or longer time. The decision to shorten a school day must be made on an individual basis and justified according to student need as provided for in the IEP.

**Q.** May a student's school day be shortened because of inappropriate bus behaviors?

**A.** No. Inappropriate bus behavior is not a valid reason for shortening a student's instructional day. If a student's bus behaviors are unsafe, other transportation arrangements should be made, such as having a parent transport the student, changing the bus assignment, or contracting with an outside agency. An IEP meeting may have to be convened to address the issue.

**Q.** Who is responsible for the safety of wheelchairs?

**A.** If there is a monitor on the bus, it is the responsibility of the driver and the monitor to work as a team to make sure the chair is secure.

**Q.** When should a motorized wheelchair be shut off?

**A.** The motor should be shut off while the wheelchair is positioned on a lift for loading or unloading.

**Q.** Can a student ride on the lift without a wheelchair?

**A.** Yes.

**Q.** Is there anything to prohibit a bus driver from leaving the bus to operate the wheelchair lift (bus engine must be running to do this) thus leaving all the other children on the running bus unsupervised? Must there be an aide or monitor in this situation?

**A.** Section 275.110 (f) of 23 Illinois Administrative Code states: "The driver shall not leave the bus while the motor is running." However, this rule does not apply when drivers are operating wheelchair lifts to load or unload students. If there is a potential for students to "take flight" while the driver is operating the lift, the district must decide to hire a monitor to ride the route for the safety of the students.

**Q.** Does a motorized wheelchair have to have a gel battery or is an acid battery acceptable?

**A.** Most districts prefer a gel battery if at all possible. Battery acid can leak from the battery; it is very corrosive and can cause harm if it comes into contact with your skin.

**Q.** The parents are going to transport the student but want the driver to pick up his/her wheelchair and transport it to school since it will not fit in their car. Can the driver transport an empty wheelchair, and does he have to?

**A.** Yes. The driver can transport an empty wheelchair. The driver must secure it just as if the student were riding in it. Yes, it must be transported.

**Q.** Can a driver refuse to transport a wheelchair that he feels is not safe?

**A.** No. The driver can speak to the parents and his/her supervisor about the concerns but he/she cannot withhold the student's right to education.

**Q.** May non-ambulatory students be transported on a regular bus if they are removed from their chairs and placed on a seat?

**A.** This arrangement does not meet the requirements for accessibility under 34 Code of Federal Regulations (CFR) 104.21 and 104.222(b)(i-iii). Although 34 CFR 104.22(b) permits a variety of methods to be used to allow access to programs, choosing to lift the student manually may result in discrimination under CFR 104.4. A parent may agree to this method of transportation, but special considerations would apply.

Considerations would include:

- the size and weight of the student and the person responsible for lifting the student;

- muscle control and supports required by the student during transport; and
- evaluation of this method of transportation as it pertains to student independence and socialization.

**Q.** Where should medical support equipment or personnel required during transportation be listed on the IEP/IFSP?

**A.** Any special medical provisions, support equipment, or extra personnel (e.g., an aide for the student with special health care needs) must be listed as related services on the IEP. If specific equipment is needed, such as oxygen or respirators, detailed instructions for service should also be provided in writing to the IEP team and should be on file with school and transportation personnel at all times. Also, training, including emergency procedures, should be provided to appropriate personnel.

**Q.** Are districts required to provide medical services during transportation?

**A.** No. School districts are not required to provide medical services. Decisions related to transportation for students who are medically fragile must be made by determining if special transportation is required as a related service, or whether special transportation is excluded because medical services not required by IDEA may be required on the bus.

**Q.** What if there is a life or death situation and injection or medicine must be used, will the driver administer?

**A.** It is not recommended that a driver or monitor administer any medication at any time, but in a life or death situation a driver may, with proper training and insurance, be directed to give the medication.

**Q.** Can the bus monitor suction a student's tracheotomy?

**A.** In some instances, the monitor may, with proper training and insurance, do a surface suction. Deep suctioning should be done by a medical professional only.

**Q.** Can the driver transport a student's medicine to school?

**A.** A district should have a policy in place before this activity takes place. Districts should require a note from the parent giving the driver permission to transport.

**Q.** When should the driver wear latex gloves when dealing with students?

**A.** Universal precautions should always be followed. Gloves should be worn as a barrier between the driver and body fluid.

**Q.** When is the driver allowed to know if a student is suffering from an infectious disease?

**A.** More than likely the driver will not be informed because of a student's right to privacy; therefore, all body waste should be treated as infectious material.

**Q.** A deaf student attends the regular campus. He is picked up at the curb each day. Transportation is a non-related service. Should the regular bus driver know of this disability?

**A.** Yes. Prior knowledge will assist in thwarting any unnecessary incidents related to the disability. Furthermore, communication procedures should be discussed before transporting.

**Q.** If a parent asks for information concerning another student, is the driver allowed to give it to them, i.e., name, phone, exceptionality, etc?

**A.** No. This information is not to be shared with anyone except supervisors, teachers, and district personnel.

**Q.** Why doesn't the bus have a restraint, car seat, or safety vest for all students?

**A.** Restraint cannot be utilized unless it has been addressed by the child's IEP team.

**Q.** Can a child have an air conditioned bus?

**A.** If it is on the child's IEP that for medical reasons he/she must have an air conditioned bus then arrangements would have to be made to accommodate.

**Q.** Are dogs allowed on a school bus? (service animals)

**A.** Yes. Such a guide dog would be considered as support equipment.

**Q.** Will there be a monitor/aide on the bus?

**A.** Situations vary. A bus monitor/aide will be assigned to routes as necessary. At times an individual aide will be assigned to a student if required by the student's IEP.

**Q.** Is the same training required of bus drivers also required of monitors/aides?

**A.** Bus drivers have specific statutory training requirements while aides/monitors do not have such requirements. Special education regulations do require staff working with students with disabilities to have appropriate training for dealing with the students, but they are not the same as for a school bus driver. Therefore, a school district should have a policy in place to deal with this issue. It is recommended by the State Board of Education that employers require aides and monitors to attend the initial and annual training provided to school bus drivers so that they will be knowledgeable in case of an emergency or bus evacuation necessity.

**Q.** Can a child eat on the bus?

**A.** No, it is not allowed.

**Q.** Can a parent or sibling ride the bus?

**A.** Only those persons authorized, in writing, by the local school board may ride a school bus.

**Q.** Can the parent ride the bus as a monitor?

**A.** Yes. Specifics must be worked out with officials of the school district and prior approval must be given in writing by the local school district administration.

**Q.** Is the driver allowed to lift a student during evacuation?

**A.** If it is a practice drill, it is not recommended that the driver lift a student. If it is an emergency for the students to be removed, then the driver would evacuate utilizing the quickest and safest possible means.

**Q.** If a taxi driver is used to transport students with disabilities, must he have school bus driver credentials?

**A.** If used on a regular route for transportation to and from school, the driver must have a school bus driver permit issued by the Secretary of State's Office. If used on an emergency basis, the driver must hold appropriate licensure to operate a for-hire vehicle. (625 ILCS 5/6-104d, Illinois Vehicle Code)

**Q.** What is the district's obligation to transport pre-kindergarten students with disabilities?

**A.** Transportation personnel have the same obligation to provide services to the pre-kindergarten student with disabilities as with any other student with disabilities. There can be specific parent obligations stated on the IEP, (i.e., there will always be a parent or guardian to supervise the child before boarding and after disembarking from the bus.) A pre-kindergarten child who needs special equipment such as a restraint or an infant or toddler seat will be provided with such equipment by the school system, if the parent is not able to provide this equipment. Local policies will provide further guidelines.

**Q.** Does a school have to provide transportation for extracurricular activities prior to the start of school in the fall or before or after school once school begins?

**A.** No, there are no requirements around extracurricular transportation--a district can provide it, provide and charge for it, or not provide it at all. This is not part of the educational program and is not covered by the IEP regarding transportation to and from educational programs. (105 ILCS 5/29-3.1 and May 20, 1988, legal opinion to the Honorable Donald C. Deany, Regional Superintendent, Iroquois County)

**Q.** A district provides a bus for extracurricular activities. The bus is provided with local funds. If students with disabilities are involved in these events, may districts access special education funds to provide transportation?

**A.** If transportation is provided with local funds to students without disabilities, then the district must use local funds to provide this service to students with disabilities as well.

## **APPENDIX C**

The following section, "Review of Relevant Cases," from *A Clear Understanding of the Law—Transporting Students with Disabilities* (November 1996) is used with the permission of Dr. Linda Bluth, Chief, Community and Interagency Services Branch, Maryland State Department of Education.

**APPENDIX D**

**QUESTIONS AND ANSWERS**

**DISCIPLINE**

## **APPENDIX E**

# **STUDENTS WITH HEALTH PROBLEMS**



## STUDENTS WITH HEALTH PROBLEMS

Students with health impairments, i.e., who have a chronic illness, who are medically fragile and/or who are technologically dependent, may need prolonged specialized health care and implementation of specialized health procedures in school. School staff must be trained to provide the care that is required for each individual child.

### General Definitions

**Chronic Illness:** A chronic illness is one that lasts for a substantial period of time. Most illnesses of childhood are self-limiting and run their course in a period of hours, days or weeks. Even the acute and serious illnesses of childhood, with proper treatment, may only require a month or so for complete convalescence. By contrast, most of the severe chronic illnesses of childhood persist for a few to a number of years after onset and have a variable course with some students improving, some remaining stable, and some becoming progressively worse.

**Health Impairment:** The student with health impairment includes individuals whose chronic health-related condition is predictable, but which necessitates regular monitoring by skilled health-care providers.

The student with health impairment also may include individuals whose chronic health-related dependency does not require 24 hours of supervision by a licensed health care provider, but for whom life-threatening incidences are unpredictable. Without regular monitoring and the availability of licensed providers, the individual's condition may deteriorate in such manner that the intensity of medical and/or educational needs will increase.

In addition, the student with health impairment includes an individual whose chronic health-related dependence continually or with unpredictable periodicity necessitates 24 hour/day skilled health care supervision and the ready availability of licensed health care providers for the individual's survival. Without such technological support or immediate health care intervention, the student may experience irreversible damage or death.

**Medically Fragile:** Medically fragile refers to students with specialized health care needs who require technological health care procedures for life support and/or health support during the school day. These students may or may not require special education (Council for Exceptional Children (CEC) ad hoc Committee on Medically Fragile Students, 1988).

Medically fragile students are further defined as those students with such complex medical needs that transportation and placement within a traditional education setting may be inadvisable due to the severity of the medical conditions and the high risk that a medical emergency may require immediate emergency medical procedures (Morehouse & Ollie, Department of Exceptional Education and Support Services, Milwaukee Public Schools, 1987).

### Specific Medical Definitions & Descriptions

**Asthma:** Childhood asthma is a chronic illness that affects 5-10 percent of the children in the United States. It is the most common cause of missed school days in students under the age of 17.

Asthma is a disease of the air passages of the lungs characterized by wheezing, coughing and difficulty in breathing.

Basically, three things happen when a student has an asthma attack: 1) the smooth muscles surrounding the bronchial tubes go into spasm causing narrowing of the air passage; 2) the cells lining the bronchioles swell and further narrow the air passage; and 3) the cells lining the bronchioles secrete extra mucous which can plug the air passage.

Asthma can start at any age. Before age ten, asthma is twice as frequent in boys; however by age 30, the prevalence for men and women is equal.

The age of onset can sometimes give a clue to the causative factor. The infant who wheezes before 1 year of age is most likely to have a food allergy. Wheezing which begins between 1 and 5 years of age is often caused by allergies to common household substances. The onset of allergies to trees, grass and pollen usually begins after age 5.

Possible trigger an asthma attack in susceptible individuals are:

- Colds and viral infections (most common);
- Allergens such as tree and grass pollens, dust, feathers, animal dander, molds, medication and food;
- Exercise or overexertion, especially in cold weather;
- Irritation from air pollutants, smoke, perfumes, chemicals, coal and chalk dust, strong odors, household cleaners, paints and varnishes, and smog;
- Emotions and stress, which have been shown to cause fatigue and may be responsible for worsening asthma symptoms and precipitating an attack.

A student with asthma may be classified as mild, moderate, or severe based on the following criteria:

- Mild: May have attack once a week or less  
Responds to medication quickly  
Usually no school activity restrictions  
Will not miss much school
- Moderate: Symptoms more frequently  
Mild wheezing cough between actual attacks  
Medication needed daily
- Severe: Symptomatic much of the time  
Severe attacks require hospitalization  
School attendance frequently interrupted  
Restricted in many activities

The objective in the management of asthma is to control symptoms while enabling the student to achieve as normal a life style as possible. The student should be treated the same as other students in the classroom. The importance of the asthma should be de-emphasized; however, the student should be reassured that help will be available if an attack occurs.

Since there is no cure for asthma, school personnel must concentrate on preventing attacks and lessening their severity. Wherever possible care should be taken to avoid the specific triggers which cause asthma attacks. Identifying known triggers and modifying the classroom environment can prevent some asthmatic attacks. The following is a partial list of classroom modifications which could help reduce the number and/or severity of attacks:

- The student should be encouraged to follow good general health practices
- Whenever possible, avoid contact with someone a respiratory infection.
- Students should be seated away from chalk dust. Clean chalk boards with wet cloths. (The asthmatic student should **not** clean blackboards.
- Animal dander from pets may cause some problems for students with asthma.
- Limit the use of exterminators, paint and strong soap solutions in the classroom.
- Any diet modifications due to food allergies should be followed carefully.
- Regularly clean and air gym mats, lockers, and library books which harbor dust and mold.

All school personnel need to know the procedure to follow when a student has an asthma attack during school. The procedure should be determined by the student's physician, but could include the following measures:

- Help the student assume an upright sitting position with shoulders relaxed.
- Encourage plenty of warm liquids. Coffee can be especially helpful in dilating the air passage.
- Encourage the student to take appropriate medication if ordered by the doctor to be taken during an asthma attack.
- If the student's fingernails or lips are blue or all of his/her efforts are focused on breathing, **immediate emergency help is needed.**
- If symptoms are not gone in 30 minutes, follow school policy and the student's emergency plan regarding whom to notify.

Modifications may be needed in the student's gym program at school. Children with asthma should be careful NOT to get overtired when exercising. They should be aware of their limits and not exceed them. If the student feels an attack coming on, s(he) should be allowed to rest. It is important that gym teachers understand that "short burst" sports such as swimming and calisthenics are well tolerated by students with asthma, while sustained exertion such as running laps is potentially dangerous.

School staff should know about the student's specific medication and side effects and be aware that asthma medications may influence a student's behavior and performance. Hyperactivity, tremors, mood changes, nausea and increased thirst or urination are sometimes observed. The school nurse and parents should be notified when these side effects are observed.

**Cerebral Palsy:** Cerebral palsy is a disorder of movement or posture that begins in infancy and is caused by malfunctioning of, or damage to, the brain (cerebral dysfunction) before, during or after birth.

Cerebral palsy is caused by a variety of diseases and disturbances occurring during pregnancy or at the time of birth. It is usually diagnosed early in life and is neither progressive nor communicable.

Symptoms can range from a slight muscle incoordination to severe multiple handicaps which seriously curtail a student's ability to move about and/or to learn. How great the injury is to the brain and what muscular activity it affects determine in what way and how severely the individual will be disabled.

No accurate figures are available on the prevalence of cerebral palsy since not all instances are accurately diagnosed. Cerebral palsy is estimated to occur in 6-8 infants per 1,000 live births. This makes cerebral palsy one of the most common crippling disorders of childhood. Some of the causes of cerebral palsy can be prevented by good prenatal and obstetric care.

Cerebral palsy is classified as follows:

- Spasticity—the limb muscles are tight and contract strongly (increased stretch reflex) with sudden attempted movement or increased stretch reflex.
- Athetosis (dyskinesia)—the limbs have involuntary, purposeless movements; purposeful movements are contorted.
- Rigidity—appears to be a severe form of spasticity, so much so that even the increased stretch reflexes are dampened.
- Ataxia—a lack of sense of balance, lack of sense of position in space and uncoordinated movements.
- Tremor—shakiness of the limb involved; tremor might be noticed only when the student attempts to use the limb (intention tremor).
- Mixed—usually these students are quadriplegic and have both spasticity and athetosis. Many spastic students have deficient balance reactions (disequilibrium).

Tremor can be observed mixed with other types of cerebral palsy.

Cerebral palsy can, and often does, affect other systems or functions controlled by the brain. These associated disabilities are sometimes more handicapping than the motor disorder.

- Drooling, teeth grinding, difficulty in chewing and swallowing.
- Speech or language deficits
- Hearing Loss: This is most prevalent in athetosis.
- Vision problems such as farsightedness, crossed eyes and inability to gaze upward.
- Loss of shape and texture sensation in spastic hemiplegia.

- Convulsive Disorders.
- of students with cerebral palsy have some degree of developmental disability.
- A student with cerebral palsy may have a visual perceptual disorder in which the student cannot perceive such relationships as space and form or figure and ground or discriminate likeness and difference, etc. The student may see or hear things in a distorted manner and/or may not move effectively in response to what s(he) sees.
- Abnormal respiratory patterns may be present.

Students with cerebral palsy may tire easily, and their muscles do not work effectively or efficiently. They may have to struggle to eat and obtain adequate nutrition. Coordination of movement is an effort, and frustration occurs because of the lack of precise control. It can be anticipated, therefore, that these students are easily fatigued, frequently depressed and/or frustrated and often irritable and seemingly uncooperative. They appreciate patience and attempts to make them more comfortable. They want to interact even though it is difficult. Anticonvulsant medications may tend to increase irritability and interfere with attention focusing, memory and learning.

- Classroom positioning is essential for feeding, learning, comfort and progress.
- Body alignment affects function. Correct implementation of positioning program will enhance body alignment.
- Simplify tasks to assist performance of motor and communication tasks.
- Everyone should be aware of and allow for the increased time required for students with cerebral palsy to initiate and complete motor tasks.
- Include educationally relevant physical, occupational, speech and vision therapy.
- May use typewriters, computers, augmentative communication devices, etc.
- Vocational training
- Promote optimum use of abilities and ways to compensate for deficits through positioning, adaptive devices and instructional modifications.

**Cystic Fibrosis:** Cystic fibrosis is a hereditary disorder which is the most common cause of chronic lung disease in Caucasian children. The disorder is characterized by widespread dysfunction of the exocrine gland resulting in the production of abnormally thick, tenacious mucus which obstructs many organs including the airways of the lungs, paranasal sinuses, small intestine, pancreas, biliary system and reproductive organs.

It is important to remember that there is a wide variation in the extent to which individuals are afflicted with this disease. Symptoms vary and the variation can range from a very mild form of the disease to severe pulmonary infection and obstruction, marked malnutrition with subsequent growth retardation, liver disease, intestinal and gallbladder obstruction and diabetes. Children with cystic fibrosis generally require frequent hospitalizations and ongoing medical management.

Cystic fibrosis is the most common lethal genetic disease in the Caucasian population occurring in about 1:2000 live births, 1:17,000 Black live births and rarely in Oriental populations. The gene is inherited by an autosomal recessive pattern; each parent must carry the gene for the disease to be inherited.

Although there is no cure for cystic fibrosis, intensive therapy can help control the disease. The diagnosis brings with it a commitment to lifelong daily therapy as a means of controlling the disease and promoting health and well-being.

With the understanding, hard work, and enthusiasm of school personnel, a student with cystic fibrosis can have a reasonably normal educational experience. Adaptation of the educational environment and/or initiation of support services, such as physical therapy for postural drainage, may be necessary as symptoms warrant. The school nurse in collaboration with appropriate administrative and educational personnel, the parent, primary care physician and specialist physician should consider any or all of the following when developing the health care plan:

- Providing the student with a classroom experience in the least restrictive environment. Give careful consideration to the student's ongoing health care needs such as:
  - location and proximity to the health office;
  - location and proximity to environmental irritants which may cause respiratory distress;
  - private bathroom facilities since the student with cystic fibrosis may have uncontrollable flatus, abdominal cramping and foul smelling stools.
- Encouraging active participation in a physical education program. The gym program may need to be modified and the student allowed to rest as needed. Physical activity will help to clear the lungs of mucus; however, the student may lack stamina and fatigue easily. In particular, exercising in hot weather needs to be monitored. These students should not play so hard that they perspire excessively unless they have received additional salt under the direction of the physician.
- Promoting awareness of the disease process among school personnel and other students. For example, school staff should be made aware that cystic fibrosis is not contagious. The frequent coughing of students with cystic fibrosis will not infect other students. The student's coughing should not be restrained, but encouraged, as it helps clear the airway. Since the student with cystic fibrosis is prone to infections, however, the student should avoid other students with respiratory infections.
- Administering and/or monitoring medication compliance, effects and side effects. Because of pancreatic insufficiency, digestive enzyme supplements must be taken with each meal. Antibiotics may be ordered to control infection.
- Facilitating good nutrition. Do not focus attention on the student's eating behavior. The affected student may have an increased appetite and require second and third helpings of food. The student with cystic fibrosis is generally encouraged to eat a high caloric diet with vitamin supplements, limited fat intake and some control of starch consumption.

- Aiding the student in overcoming possible psychological difficulties. The effects of pulmonary disease and pancreatic insufficiency results in small stature and lags in development of secondary sex characteristics. Being 'the smallest kid in class' can be difficult for the student with cystic fibrosis.
- Monitoring absences due to hospitalizations or at-home illness. Exacerbation of symptoms often results in frequent or prolonged absences from school. School personnel can help the student by providing tutoring or homebound instruction when school attendance is impossible. Since students with cystic fibrosis usually have normal intellectual functioning, excelling in academics can foster positive self-esteem.
- Preparing for possible emergency situations which could arise at school. A student with cystic fibrosis could have massive-salt depletion through sweating in hot weather or excessive physical activity, resulting in heat exhaustion. Symptoms include moist or clammy skin, profuse sweating, nausea, dizziness, or faintness. If such symptoms occur, immediate action should be taken, e.g., move him/her to a place with circulating or cooler air, allow the student to rest, loosen the student's clothing and/or administer slightly salted warm water. If symptoms persist, emergency medical help should be sought. The classroom teacher should not be expected to administer medical aid, but should be aware of the cause and possible seriousness of salt depletion symptoms so appropriate school personnel may be notified.

The major complications against which therapy is principally directed are bronchial obstruction, pulmonary infection, pancreatic deficiency and salt loss through sweat.

Prevention of pulmonary infections by the use of antibiotics is the best treatment for maintaining clear airways. Chest therapy, in the form of percussion and postural drainage, removes mucus from the lungs. Breathing exercises improve efficiency of respiration, ventilation and posture. Physical activity is encouraged to raise sputum. Aerosol therapy is effective in wetting and thinning the mucus secretions in the airways. Bronchodilators may be useful in students who have reversible bronchospasm. Mist tent therapy has been advocated as a prophylactic treatment to prevent the onset of pulmonary involvement, but has found limited acceptance.

Pancreatic deficiency is treated by replacement therapy and diet. Extract of animal pancreas is consumed with each meal. The diet should be high in protein and calories. Fat intake is generally restricted. Fat-soluble vitamins (A, D, E, K) are given since there is some difficulty absorbing these vitamins. Patients with cystic fibrosis should be given extra salt with their food and may require salt tablets in hot weather.

Some students may receive intravenous therapy at home and have a central venous line in place. School personnel should be aware of a central venous line.

**Diabetes Mellitus, Insulin Dependent (IDDM):** Diabetes mellitus is referred to as a syndrome, a disorder or a disease complex. Diabetes involves abnormalities in carbohydrate, lipid and protein metabolism secondary to deficient insulin secretion or insulin action. It is the most common endocrine disorder of childhood, with important consequences for both physical and emotional development. For purposes of this document the focus is on insulin-dependent diabetes mellitus (IDDM), also known as Type I diabetes mellitus (insulin dependent). It may also be referred to as juvenile diabetes mellitus.

Treatment consists of establishing and maintaining the proper balance between insulin, nutrition requirements for optimal growth and development, and exercise. Special adjustments in meal planning and insulin must be made during the adolescent growth spurt and with vigorous exercise. Flexibility rather than rigidity is of the essence when treating children.

Some common complications of IDDM are diabetic ketoacidosis and hypoglycemia. Diabetic ketoacidosis (DKA) is a profound alteration of metabolism resulting from a deficiency of insulin action. Severe DKA can result in deep coma which, though treatable, sometimes results in death. Some precipitating factors include stress, trauma, infection, vomiting, and psychological disturbances.

Hypoglycemia (low blood sugar) or insulin reaction is a more common concern at school, particularly in children who may not or cannot easily recognize or communicate their symptoms. All insulin reactions must be considered as potentially serious and should be treated promptly. Left untreated, the student may quickly relapse into unconsciousness which is a true medical emergency.

Those who deal with the diabetic student should remain alert to the special needs of a diabetic. This includes being able to recognize and respond to the sometimes subtle early signs of an insulin reaction. These signs can consist of only a change in personality or alertness. It is important to realize that recurrent behavioral problems or lapses in attention, particularly before lunch, in the mid-afternoon, or during physical activity, may be due to insulin reactions. Dietary adjustment may have to be made which may require frequent snacks. Other special problems may include the need to visit the restroom more often and extreme thirst. The diabetic student can lead an active, normal life and should participate in all classroom activities.

All school personnel (nurses, teachers, principals, assistants, lunch room workers, bus drivers, secretaries, playground and hall supervisors) must be informed that a student has diabetes and taught the signs and emergency treatment for insulin reaction and diabetic coma.

Attention should be paid to the student's daily schedule in order to maintain the proper balance between insulin, food intake and exercise. In schools with multiple lunch periods, scheduling the student earlier rather than later would be desirable. Physical education classes or periods of marked physical activity should be scheduled after lunch if at all possible. If this is not possible, perhaps the student might eat a snack before participating.

Being diagnosed as having IDDM precludes an individual from certain occupations. Students with IDDM should be referred to the Division of Rehabilitative Services (DORS) in the eleventh or twelfth grades.

**Down Syndrome:** Down syndrome, also known as Trisomy #21, was first described in 1866 and occurs more frequently than any other genetic error of development. It was not until 1959 that the genetic cause was understood and the wide variations of involvement were clarified.

Onset of Down syndrome occurs at conception in 1 in 600 to 800 live births, not counting aborted conceptions. All races are affected equally.

Incidence increases with mother's (and possibly father's) age. One study estimates the rate for women 40 years and over at 1 per 100 live births.



The basic defect is the partial representation of chromosome #21, which can occur by the following processes:

- Non-dysfunction, which takes place during the formation of sperm or ovum and results in an extra chromosome in the fertilized egg (95%)
- Transplanting, when the extra #21 chromosome is attached to another chromosome (4%)
- Mosaics, when the abnormal division of #21 chromosome takes place after conception. The extent of abnormality depends on the time of the original defect during growth of the fetus and the percentage of abnormal or normal cells (1 to 2%)

Students with Down syndrome may experience cognitive impairment of varying degrees and a variety of complications:

- Decreased resistance to infection, especially respiratory
- Congenital defects of the heart and/or gastrointestinal tract
- Muscular hypotonicity
- Eye problems
- Mild to moderate obesity
- Dryness of mucous membranes and skin
- Constipation
- Difficulties with teeth and gums
- Atlanto-axial joint instability
- Nutritional concerns

In 1964 a high incidence Atlanto-axial instability was noted in children with Down syndrome. Atlanto-axial instability is an abnormally large movement between the first and second cervical vertebrae. If this movement becomes sufficiently great, weakness or paralysis, and even death, can occur due to pressure on the spinal cord. Ten to twenty percent of children with Down syndrome have increased movement between the first and second cervical vertebrae, but only a small number of these develop spinal cord injury.

If x-rays show Atlanto-axial instability, the student should be restricted from activities that could result in sudden forced flexing of the neck, e.g., tumbling and diving. In some students, the instability will resolve over time. Other students may require some permanent, minor activity restriction. If signs of cord compression are present or the instability is extreme, surgical stabilization may be necessary.

**Seizure Disorders (Epilepsy):** Seizures are sudden, uncontrolled episodes of excessive electrical discharges of brain cells, with associated motor, sensory and/or behavioral changes.

Seizure disorders take on several forms depending on where the malfunction in the brain takes place and the amount of brain area involved.

The most common seizures can be classified as either generalized or partial.

- Generalized seizures
  - Generalized Tonic-Clonic (formerly known as grand mal) affects the entire body usually without aura (warning). The person becomes unconscious, body stiffens, then muscles begin alternate pattern of spasm and relaxation with jerking motions. Breathing is sometimes labored causing cyanotic appearance. Loss of bowel and/or bladder control may occur. The entire seizure may last 1 to 3 minutes. When a person regains consciousness, he or she may experience a headache and speech difficulty and is often confused or sleepy.
  - Absence (formerly known as petit mal) consists of brief loss of consciousness 1 to 10 seconds, during which the person may be staring or blinking or have mild facial twitching. There is no aura associated with this seizure. It is most common in children and has a distinct EEG pattern.
- Partial seizures
  - Simple (formerly known as focal motor, focal sensory or Jacksonian) is when the person does not lose consciousness but experiences the involuntary movement of one extremity or one side of the body. In some individuals the jerking may spread to become a generalized tonic-clonic seizure.
  - Complex partial seizures (formerly known as psychomotor or temporal lobe) varies from person to person, often with the individual having an aura (warning). Purposeless activity is the main characteristic of this type of seizure. The person may move about aimlessly, make lip-smacking or chewing motions, fidget with clothing, appear drunk or drugged. The person is not violent but may fight if restrained. Usually there is no memory of the seizure; afterwards the individual is often confused. The seizure usually lasts from 1 to 3 minutes.

These four types of seizures comprise those most commonly seen in individuals although there are over 30 different types. Some of the other types include infantile spasms, myoclonic, atypical absence and atonic seizures.

The prevalence of seizure disorders in the general population is about 1% or less. Three out of four new cases begin in childhood, 34% first occurring during elementary school and 13% during high school and adolescence.

There are many causes for seizure disorders, but in approximately 50% of the cases the cause cannot be determined, even after extensive evaluations. Some of the known causes of seizure disorders include:

- Inherited diseases, e.g., phenylketonuria (PKU), tuberous sclerosis, and neurofibromatosis
- Prenatal developmental problems, maternal infections and injury
- Neonatal problems, lack of oxygen, difficult deliveries, brain injury
- Head injuries

- Infectious diseases, encephalitis, meningitis
- Toxic factors such as mercury or lead poisoning
- Brain tumors
- Circulatory problems, strokes

Most students with epilepsy are in regular education, but some will need special education programs. The needs of students with seizure disorders vary greatly, and each student must be considered individually. Overprotection of the student with epilepsy should be avoided, but caution should be taken during physical activities, i.e., climbing high places, using power tools and swimming, unless closely supervised. For older students participation in driver education courses can be arranged upon advice of a physician. Further, it is in the student's best interest that school personnel having direct contact with the student be informed of his/her condition and the potential effects of medication.

Compliance with prescribed medication is essential in the treatment of epilepsy. Some students may think they don't need their medication if they have not had a seizure for some time, while others are afraid of becoming dependent on medication. Even though a student with epilepsy is taking medication (s)he may still experience a periodic seizure. It is best not to attempt to classify the seizure but rather to describe it in detail, as individual seizure patterns vary.

- What was the student doing before the seizure began?
- What did the student do during the seizure, especially at the onset?
- How long did the seizure last?
- How did the student react after the seizure?

**Hemophilia:** Hemophilia is an inherited bleeding disorder caused by the absence of a vital blood clotting protein, either factor VIII or factor IX. Factor VIII deficiency is also known as "Hemophilia A" or "Classical Hemophilia;" factor IX deficiency or "Hemophilia B" is sometimes referred to as "Christmas Disease." Both conditions are characterized by episodes of prolonged bleeding, into muscles, joints, or internal organs. Hemophilia A affects approximately one in 7500 males; hemophilia B is less common, accounting for only about 15-20% of cases of hemophilia. The total number of individuals with hemophilia in the United States is estimated to be about 25,000.

The severity of bleeding in hemophilia is directly related to the degree of factor deficiency. Individuals with a deficiency of Factor VIII or Factor IX experience prolonged oozing within muscles and joint spaces after even a minor injury. Unless prompt replacement therapy is administered, joint damage may result. When hemorrhage occurs within vital organs, particularly the brain, persistent bleeding could be fatal. Fortunately, there is now safe and effective treatment for hemophilia. The goals of modern hemophilia treatment are to prevent joint damage, to maintain a normal lifestyle for the affected individual, and to promptly treat all bleeding episodes.

**Hydrocephalus:** Hydrocephalus is an imbalance in the production and absorption of cerebrospinal fluid (CSF) in the body, resulting in an enlargement of the fluid-filled spaces in and around the brain. Left untreated, this condition can cause permanent brain damage.

Hydrocephalus is usually recognized during the neonatal period or can occur at any age following head trauma or development of a tumor. The incidence of hydrocephalus in this country is approximately 0.8 to 1.6 cases per thousand children.

Hydrocephalus is nearly always caused by blockage in the normal circulation of cerebrospinal fluid. When a blockage does occur, fluid builds up inside the head in volume, with the resultant increased pressure causing many problems. In rare cases, the channels for flow and absorption are open, but a tumor within the ventricular system produces more cerebrospinal fluid than can be reabsorbed; as a result, the head becomes enlarged.

Some children with hydrocephalus also have seizure disorders. If hydrocephalus is accompanied by brain damage or brain malformation, mental retardation may be present as well.

While many children with hydrocephalus have no specific educational problems, others may have brain damage resulting in motor, language, perceptual or intellectual disabilities. The damage from hydrocephalus is more likely to affect reasoning skills than rote memory. It is also likely to make these children hyperverbal. Extreme cases are characterized by the cocktail chatter syndrome--talking incessantly and with little meaning--or by echolalia--copying what other people say.

Hydrocephalus is most often treated with a ventriculo-peritoneal (VP) shunt (see section on Shunt Monitoring), which helps lessen the pressure on the brain by draining off the CSF. In most cases the shunt is passed from one of the lateral ventricles under the skin and down to the abdominal cavity. The lining within the abdominal cavity contains the digestive organs which absorb the cerebrospinal fluid. The shunt may be passed through a large vein to the heart instead of the abdomen. There the cerebrospinal fluid is shunted directly back into the bloodstream (atrioventricular or AV shunt).

The shunt is a plastic tubing with a one-way valve which is surgically implanted to drain excessive cerebrospinal fluid (CSF) from the brain into the heart or abdominal cavity. The shunt is designed to maintain pressure within the central nervous system. The shunt can be seen and felt under the skin behind the individual's ear.

While this system usually works well, the insertion of the shunt may present some difficulties. First, the shunt hardware provides a place for bacteria to multiply, sometimes resulting in infection. A second potential difficulty is that a shunt, being mechanical, is subject to clogging or other malfunctioning which requires prompt attention. Possible symptoms of a shunt malfunction in school-age children include headaches, vomiting, lethargy, seizures, irritability, swelling along the shunt tract, redness along the shunt tract and decreased school performance. If these symptoms occur, the student's parent and/or physician should be notified.

**Juvenile Arthritis:** Juvenile arthritis is a chronic condition which causes inflammation in one or more joints and begins before the age of 16. There are several different patterns of arthritis. Though all have joint inflammation in common, they behave very differently, may require different treatment approaches and have different outcomes.

Over a quarter of a million children in the United States have juvenile arthritis. The causes of juvenile arthritis are unknown. Some genetic indicators are found in certain types of childhood arthritis and/or in children who develop certain complications. Some visages of these diseases insinuate that there may be infectious triggers in a genetically predisposed child; however, no exact infectious cause has been found.

Juvenile arthritis is often difficult to diagnose because children often make up for the loss of function and may not complain of pain. A number of other conditions can imitate juvenile arthritis. These children must often take medication to control the inflammation. Measures may have to be taken to prevent or correct loss of range and function. Physical and occupational therapy can prevent disability, a regular exercise program or outpatient treatment are also often effective. Children should participate in regular school activities, extracurricular activities and family responsibilities. The child may be affected by absenteeism from school, reduced participation in peer activities or limited career options. The educational program may need to be modified to meet the specific educational and health needs of this child.

**Leukemia:** The major forms of leukemia are divided into four categories. Myelogenous and lymphocytic leukemia have an acute or chronic form. The terms myelogenous or lymphocytic denote the cell type involved. The four major types of leukemia are: acute or chronic myelogenous and acute or chronic lymphocytic leukemia.

Acute leukemia is a rapidly progressing disease that affects mostly cells that are unformed or primitive (not yet fully developed or differentiated). These immature cells cannot carry out their normal functions.

Chronic leukemia progresses slowly and permits the growth of greater numbers of more developed cells. In general, these more mature cells can carry out some of their normal functions. The ability to measure additional specific features of cells has led to further subclassification of the major categories of leukemia. The categories and subsets allow the physician to decide what treatment works best for the particular cell type and how quickly the disease may develop.

**Osteogenesis Imperfecta (OI):** Osteogenesis Imperfecta is a genetic condition which applies to a group of disorders characterized by liability to fractures. It is also commonly referred to as "Brittle Bone Disease." It is thought that the underlying problem is imperfect development of bone. On some occasions fractures occur spontaneously but trauma to the skeleton does not always lead to fracture. The most frequent fractures occur in leg and thigh bones, arms, fingers and toes. Other sites such as spine, ribs and skull are fractured much less frequently. When they occur, these fractures are often painful, complete breaks. In comparison most fractures in young children are green-stick fractures, involving fracture without complete disruption of bone continuity.

Some but not all patients have blue sclerotics (a deep blue-black hue of the "whites" of the eyes), joint hyperextensibility, a bruising tendency, opalescent yellow-brown teeth due to defective dentine (dentinogenesis Imperfecta), hearing impairment, short stature and skeletal deformity. In addition to care to protect this child for fractures, those children who have a hearing impairment need to have their educational program geared to meet their specific needs.

**Spina Bifida (Myelomeningocele & Meningocele):** Spina bifida literally means a "spine split in two." It is a neural tube defect in which there is an incomplete closure in the spinal column.

The three types of spina bifida are:

- Spina bifida occulta—A defect in the fusion of the vertebrae of the spinal column without damage to the spinal cord itself. In most cases, the defect is of little or no clinical significance. On physical exam, dimpling, a hair tuft or a dermal sinus may be seen at the base of the spine.
- Meningocele (Membrane) (Sac)—In this condition the meninges or the protective covering of the spinal cord protrudes through the opening of the vertebra in a fluid filled sac called the "meningocele." The spinal cord itself remains intact so that the defect can be repaired with little or no damage to the nerve pathways.
- Myelomeningocele (Nerve) (Membrane) (Sac)—This is the most common and serious type of spinal defect. It occurs 4 to 5 times more frequently than other spinal defects. It is the most severe birth defect of the newborn that is compatible with survival. In this condition the spinal cord and nerve roots, meninges and spinal fluid protrude through the vertebra. A visible sac is seen along the spinal axis.

It is estimated that spina bifida occulta occurs in 5% of the total population. The other two forms occur approximately 0.6 to 1.0 out of every 1,000 live births. Of these, 4% have the meningocele form and 96% have myelomeningocele.

Spina bifida is not a new disorder; it was recognized 2,000 years B.C. Prior to 1950, 90% of the infants with this disorder died from infection, neglect or progressive hydrocephalus. Currently 90% of these children survive due to prevention of infection and preservation of nerve tissue by closure of the defect within the first 24 hours of life. Shunting is also done within a reasonable time to drain excessive spinal fluid.

There are five major related disorders associated with myelomeningocele of which school personnel need to be aware:

- Hydrocephalus—Approximately 75% of the children develop hydrocephalus which requires shunting shortly after birth or within the first six weeks of life. The shunt is a system of tubes and valves which carries excess spinal fluid to the heart or abdominal cavity. A functioning shunt establishes normal growth of the head and ensures maintenance of brain function and future development of intelligence.
- Flaccid Paralysis—This means weak or no muscle function. Students will have varying degrees of impaired motor functioning of the lower extremities. The lower the spinal cord defect, the less neurological involvement.
- Defects in the sacral region show little involvement of the legs and weakness is generally confined to the feet; the student is usually ambulatory, but walking may appear "awkward." Affected students can participate in many physical education activities.
- Defects in the mid-lumbar region are the most common and cause weakness affecting the feet, ankles, knees and legs; the student usually is ambulatory with orthoses and crutches or other assistative devices.

- Defects in the high lumbar region or above may cause weakness of the entire leg and lower extremities; the student usually is wheelchair-bound, possibly ambulatory for short distances with special standers/orthoses.
- Damage to the spinal cord at or above the eighth thoracic vertebra causes trunk and total limb paralysis; the student is wheelchair-bound and nonambulatory. Because of partial paralysis in the lower limbs, muscle imbalance occurs which may result in bones and joints being pulled out of their proper alignment. This can result in dislocated hips, club feet, knee flexion contractures and scoliosis.
- Impaired Sensory Function—There is an absence of sensation to pain, temperature and touch below the level of the spinal defect. Serious skin problems such as pressure ulcers may result.
- Bowel and Bladder Paralysis—Because the nerves involved in bladder control come from the lower part of the spinal cord, most affected students have paralysis of the bladder and muscles involved in urination. This means the student cannot control the emptying of the bladder (incontinence). If the bladder becomes over-distended, dribbling of urine occurs and urine stagnates backing up into the ureters. Because of the urine stagnation, the student is very susceptible to bladder and kidney infections. The physician may prescribe intermittent catheterization to fully empty the bladder as a preventive measure.
- In myelomeningocele, bowel paralysis, particularly of the rectum and the anal sphincter, is common. Sphincter and muscle tone are affected. The student may have frequent constipation or uncontrolled soiling with feces or constant dribbling of loose stools. Most children are placed on a bowel program. Students need to be instructed by qualified school personnel, i.e., OT, PT, school nurse, to inspect their skin and to shift their position frequently to avoid pressure ulcers (decubitus).
- Autonomic Nervous System Impairment—This results in absence of perspiration and cool, dry skin below the level of impairment. Sweating and skin temperature is intact above the lesion.

The congenital neural tube defect occurs during the fetal period between the 19th and 21st day of pregnancy. The etiology of myelomeningocele, meningocele and spina bifida occulta is unknown. Although the defect is occasionally hereditary, in the majority of cases there is no history of familial occurrence, maternal trauma, infection or metabolic disturbance.

School personnel working with students who have myelomeningocele should aid the student to obtain independence and achieve full potential in the least restrictive environment. School personnel need to be aware of the following when developing a student's IEP:

- Students with spina bifida also may have a related defect called Arnold-Chiari Syndrome in which the brain tissue from the lower cerebellum extends down through the base of the skull and into the spinal canal. Although normal intelligence can be expected, subtle abnormalities of brain function are recognized with more sophisticated neuropsychological testing. The most common problem experienced is difficulty with eye-hand coordination. The student also may have gagging problems, with difficulty adapting to certain food textures. Rarely, the student may exhibit more severe manifestations such as temporary stridor (noisy breathing) and/or apnea (interruption of breathing) while at school.

- The student with myelomeningocele may require a series of operations throughout childhood. Because of the need for repeated neurosurgical, urological, and orthopedic consultations and procedures, allowances for school absences must be anticipated and adaptations made in the school program.
- The student is likely to require assistance from one or more of the following devices: braces, crutches, walker, cane or wheelchair. Modification of the environment and gym program may need to be made to assure safety and promote independence.
- The student will be learning mobility skills with the help of the physical and/or occupational therapist, so it is important that all school personnel understand the student's capabilities and limitations. Positioning is important to diminish deformities and as a precaution for skin care, especially for higher level lesions of the spinal cord.
- Many students with myelomeningocele need training to learn to manage their bowel and bladder function. Most students are on a clean, intermittent catheterization program every 3-4 hours while at school.
- It is advantageous to teach the principles of urinary and bowel management as early as developmentally possible. The school nurse may perform the procedure when the student is young; however, fostering independence is a desirable goal so the student can perform the procedure independently as s(he) gets older.
- Students should be encouraged to follow their bowel and bladder programs while at school. Since students with myelomeningocele have little or no bladder sensation, it is important that school personnel be alerted to symptoms of urinary tract infections: unexplained fever, chills, decreased appetite, vomiting, unusual sleepiness and an unpleasant odor to the urine.
- Increased fluid intake should be encouraged in school to prevent urinary tract infections and to aid bowel movements.
- The student may be on a bowel program at school which may include scheduled toileting, a high-fiber diet, avoidance of foods that cause constipation, encouragement of physical activity, and bowel stimulant and stool softener medications.
- School staff should be aware of the signs and symptoms of shunt failure so that appropriate medical action can be taken.
- Since 5-10% of students with myelomeningocele also have seizure disorders, school personnel need to be prepared to administer first aid if a student has a seizure in school.
- Decubitus ulcers are a common and serious problem with affected students and are further complicated by bowel and bladder problems with lack of sensation and control of elimination. School personnel should encourage students to change their position frequently (every 2 hours) to help prevent pressure sores. The student should also be encouraged to keep skin clean and dry.
- If students use the gym floor, they should wear long pants or heavy tights to reduce the likelihood of friction burns resulting from dragging of lower limbs.



- Because the students lack sensation below the level of the spinal defect, they should be reminded of safety precautions to prevent burns and frostbite. (They need to check bathwater, avoid electric blankets and radiators, dress warmly and use sunscreen on lower limbs.)

**Muscular Dystrophy (Duchenne):** The muscular dystrophies are a group of diseases marked by wasting and progressive weakness of the skeletal muscles which control body movement. Muscular dystrophy is progressive and the symptoms usually get worse as muscle deteriorates. There is no cure and no way to arrest the disease process. Different types of muscular dystrophies are distinguished by the particular muscle groups that are affected. Most affect the extremities but some also affect the face, neck, trunk and muscles of respiration.

Most forms of muscular dystrophy are genetically inherited. Symptoms are variable, with most appearing between birth and adolescence. However, muscular dystrophy can occur with no family history of the disease, and some forms may be symptom-free until early adulthood or even middle age.

Duchenne muscular dystrophy is the most frequently encountered form affecting children. Symptoms are usually first noted as the child begins to walk; a waddling gait, walking on toes, difficulty running and frequent falling may become apparent. Getting up from the floor can be awkward and the child may be noted to "climb-up" his/her own body, rather than by rising with sheer muscle strength. This symptom is known as "Gowers maneuver" and results from the weakness affecting the large muscles of the lower trunk and upper legs.

Duchenne muscular dystrophy is a sex-linked or x-linked recessive genetic disorder. It involves the genes located on the X chromosome, which is the female or sex chromosome. With this type of genetic transmission, females are the carriers of the gene and the males are affected by the disease. It has an incidence of occurrence of 2 in 10,000 live births.

Students with a diagnosis of Duchenne muscular dystrophy may fatigue easily and will experience muscle weakness in various progressive stages. The weakness can affect the child's mobility and/or respiratory status. Some will experience rapid deterioration of function while others will experience prolonged periods of stability before deterioration in function occurs. These students will require ongoing monitoring by the school nurse. As motor function deteriorates, the school physical and occupational therapists can monitor functions and adapt the environment to enhance performance. In time the student may demonstrate any or all of the following:

- Increased susceptibility to respiratory infections and risk for recurrent episodes of pneumonia
- Cardiac involvement which can increase fatigue and limit the student's physical activities, as well as possibly contribute to obesity
- Tendon contractures which can inhibit fine and gross motor coordination, mobility and eventually require surgery and/or the assistance of orthopedic devices to prevent deformity and to help maintain function/independence
- Various learning problems and/or varying degrees of mental retardation

- Various states of social/emotional adjustment ranging from passive/poorly motivated to outgoing/risk-taking. Some may use their physical limitations to elicit sympathy, while others may exhibit rebellious behaviors.

General considerations for developing a health care plan should include:

Awareness and prevention of health problems that could interfere with or disrupt the learning process	<ul style="list-style-type: none"> <li>* Facilitate and encourage proper positioning</li> <li>* Monitor for signs of fatigue</li> <li>* Early interventions for treatment of upper respiratory infections and skin abrasions</li> </ul>
Recognition of physical limitations requiring adaptation of the school environment to promote independence and facilitate safety	<ul style="list-style-type: none"> <li>* Access to elevators, bathrooms, lockers, etc.</li> <li>* Need for extended passing periods</li> <li>* Need for assistance with self-care (e.g., toileting, feeding)</li> <li>* Need for adaptive PE</li> <li>* Use of adaptive devices to facilitate independence (e.g., typewriters, tape recorders, computers)</li> </ul>
Recognition of social/emotional adaptation to the disability	<ul style="list-style-type: none"> <li>* Provide opportunities for peer support and/or counseling</li> <li>* Provide opportunities for social activities</li> </ul>

**Sickle Cell Anemia:** Sickle cell anemia is an inherited blood disease which can cause recurrent pain and damage to vital organs such as the brain, lungs and kidneys. The effects of the disease vary from individual to individual and symptoms can range from mild to severe.

This disease changes the shape of the individual's red blood cells (which are normally round) into a crescent or sickle shape. These sickled cells tend to become trapped in the spleen and in blood vessels and are eventually destroyed. This destruction results in a shortage of healthy red blood cells which, when severe, can cause pale skin color, shortness of breath and fatigue. Students with sickle cell anemia may be prone to certain infections that can worsen their anemia and inhibit normal physical growth and development.

As the disease progresses, students may experience a sickle cell crisis whereby the sickled cells become stuck in tiny blood vessels. When this occurs, the red blood cells lose oxygen and occlude the blood vessel, causing pain. These sickling crises usually occur in bones and in organs of the abdomen or chest. The pain is often severe and, if long-lasting, can destroy areas of tissue leading to disability or possible death. At this time there is no known cure for the disease and no known therapy to prevent a sickling crisis.

Sickle cell anemia is an autosomal recessive genetic disorder. It is inherited when both parents carry the defective gene, which is also called sickle cell trait. If both mother and father carry the sickle cell trait, with each pregnancy there is 25% chance that their offspring will develop sickle

cell disease. In the United States, most cases of sickle cell anemia occur among American blacks and Hispanics of Caribbean ancestry. Approximately one in every 400 to 600 American blacks and one in every 1,000 to 1,500 Hispanics inherit the abnormal genes that cause sickle cell disease. The disease can also affect individuals of Mediterranean heritage.

Students with a diagnosis of sickle cell anemia may enjoy reasonably good health much of the time. However, their potential for recurrent sickling crises will require ongoing monitoring by the school nurse. During the course of the disease, students may demonstrate any or all of the following problems:

- Severe abdominal pain
- Painful swelling of the joints
- Severe headaches
- Frequent nosebleeds
- Lethargy and fatigue
- Poor resistance to infection
- Alteration of growth pattern
- Delayed puberty
- Vision disturbances
- Poor circulation to the lower extremities which can result in chronic leg ulcers
- Various stages of social/emotional adjustment

The student health care plan should consider the following points:

Awareness of potential health problems that could interfere with or disrupt the learning process	<ul style="list-style-type: none"> <li>* Plan activities around student's physical tolerance to prevent fatigue</li> <li>* Encourage appropriate nutrition intake including adequate water</li> <li>* Allow for administration of medication if warranted</li> <li>* Provide early intervention for maintenance of joint mobility, such as PT services</li> </ul>
Recognition of physical limitations requiring adaptation of the school environment to promote independence and facilitate safety	<ul style="list-style-type: none"> <li>* Need for adaptive PE</li> <li>* Need for extended passing periods, access to bathrooms and elevators, etc.</li> </ul>
Recognition of sound emotional adaptation to the disability	<ul style="list-style-type: none"> <li>* Provide opportunities for peer support and/or counseling</li> <li>* Provide opportunities for social activities</li> </ul>

**Spinal Cord Injuries:** Spinal cord injuries are generally the result of a traumatic injury to the spine as the result of accident after birth. The extent of the paralysis is dependent upon where the spinal cord is injured. A cervical spine injury can lead to paralysis from the neck down; and thoracic/dorsal or lower spine injury result in paralysis anywhere below spinal injury. The paralysis usually affects the bladder and rectal functions. These children are prone to infections that can lead to kidney damage. Bowel and bladder care will need to be provided.

## **APPENDIX F**

This section, “Issues on Transporting Pre-K and Special Needs Students” is used with the permission of Dr. Kentin Gearhart, Project Manager, Community Education Department, Riley Hospital for Children, Indianapolis, Indiana.

**APPENDIX G**

**ADDITIONAL RESOURCES**

## WEB SITES

The following three web sites contain information which may be of interest to educators, transportation officials, and other individuals concerned with the education of children with special needs.

The School Transportation News web site at <http://www.stnonline.com/> contains information on various topics such as a Calendar of Events, Fact Sheet, Frequently Asked Questions, FMVSS, Guideline 17, head Start, Hot Links, Industry Contacts and Supplies, NASDPTS, Seat Belts, Special Needs, Vans, etc.

The Americans with Disabilities Act web site at <http://www.usdoj.gov/crt/ada/> contains information related to ADA Enforcement, Technical Assistance, Settlement Information, ADA Mediation, Questions and Answers and other pertinent information.

A web site entitled a Summary of Recent Changes in the Individuals with Disabilities Education Act (IDEA) at <http://www.ed.gov/offices/OSERS/IDEA/> discusses such topics as disciplinary issues, school personnel training, student assessments, parental involvement, and other items of interest.

Additional injury information can be obtained (from the National Highway Traffic Safety Administration web site) at <http://www.nhtsa.dot.gov/people/injury/buses/>.

RE\080BC513w6