



CHAPTER 14:

Learners with Physical Disabilities and Other Health Impairments

***Exceptional Learners: An Introduction to Special
Education***

Thirteenth Edition

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Topics

- Definition and classification
- Prevalence and need for special education
- Major neuromotor impairments
- Major orthopedic and musculoskeletal disorders
- Conditions affecting health or physical ability
- Prevention of physical disabilities
- Psychological and behavioral characteristics
- Prosthetics, orthotics, and adaptive devices
- Educational considerations
- Early intervention and transition

Definition and Classification

Physical limitations or health problems interfere with school attendance to such an extent that they require special services, training, equipment, materials, or facilities.

- Congenital anomalies: present at birth
- Acute illness or condition: severe, but resolves
- Chronic condition: ongoing
- Episodic condition: occurs repeatedly
- Progressive condition: one that becomes more serious over time

Prevalence and Need

- About 1% of school-aged population have physical disabilities
 - About 75,000 of those have orthopedic disabilities
 - Vast majority have other health problems
- Increase in prevalence
 - Improvements in identification
 - Medical advances assure survival of more children with severe problems

Neuromotor Impairments: Cerebral Palsy

Disorder of movement and posture; brain injury before, during, or shortly after birth; not progressive

■ Causes and types

- Classification by extremities involved
 - Quadriplegia, paraplegia
- Classification by type of movements
 - Spasticity, choreoathetoid, atonic

■ Associated disabilities and educational implications

- High proportion have other disabilities
- Full range of intelligence, lower on average

Neuromotor Impairments: Seizure Disorder (Epilepsy)

Abnormal discharge of electrical energy in brain cells: a chronic condition that is recurrent.

- Seizures vary along many dimensions:

| | | |
|-----------|-----------|--------------|
| Duration | Movements | Associated |
| Frequency | Causes | disabilities |
| Onset | Control | |

- Educational Implications

- Not all have other disabilities (full range of intelligence)
- Primarily a medical condition

Neuromotor Impairments: Spina Bifida and Other Spinal Cord Injuries

Spina bifida: congenital midline defect due to incomplete closure of bony spinal column during fetal development (one type of neural tube defect)

- Often accompanied by paralysis and lack of function below the site of the defect
- Unsure of cause, but folic acid before and during pregnancy helps
- Educational and social implications
- Frequent hospitalization
- Catheterization

Orthopedic and Musculoskeletal Disorders

- Muscular dystrophy
 - Hereditary; progressive weakness; degeneration of muscle fibers
- Juvenile rheumatoid arthritis
 - Muscles and joints affected
- Scoliosis
 - Spinal curvature
- Intelligence unaffected unless other disability present

Other Conditions Affecting Health or Physical Ability

- Asthma
- Cystic fibrosis
- HIV and AIDS
- Fetal alcohol spectrum disorders
- Medically fragile

Prevention of Physical Disabilities

- Accidents
- Substance abuse
- Unhealthful practices
- Teenage pregnancy
- Child abuse
- Improper treatment (e.g., not following PKU diet)

Psychological and Behavioral Characteristics

- Academic achievement
 - Extremely varied
 - Many have erratic school attendance
- Personality characteristics
 - Public reactions
 - Children's and families' reactions
 - Largely a reflection of how others react

Prosthetics, Orthotics, and Adaptive Devices

- Prosthesis: artificial replacement
- Orthosis: enhances partial function
- Adaptive devices: make tasks easier to do
- Important considerations
 - Maximize residual function
 - Affordability of technology
 - Evaluation and availability

Educational Considerations 1

Educating students with physical disabilities isn't so much a matter of special instruction for children with disabilities as it is of educating the nondisabled population (Best et al., 2010).

- Individualized planning: IEP and IFSP
- Educational placement: homebound teacher to general education setting

Educational Considerations 2

- Educational goals and curricula
 - Might be deprived of experiences others have
 - Might be impossible to manipulate materials and respond to tasks in typical ways
 - For those with severe disabilities, goals should be functional
- Links with other disciplines
 - Often have other disabilities
 - Related service providers

Early Intervention

- Early identification and intervention
- Development of communication
- Special skills in:
 - Handling: how child is picked up, carried, held, assisted
 - Positioning: providing support for body and arranging materials
 - Teaching gross motor responses
 - Teaching fine motor skills
 - All taught in context of daily living and social skills

Transitions

Not just to adulthood: from hospital settings to home, school, or work at any age.

- Choosing a career

- Varied outlook: improved with laws for accessibility and accommodations; technology
- Supported employment

- Sociosexuality

- Societal attitudes
- Right to education and full range of experience