



Chapter 10: Students with physical and health disabilities

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A brief history

ent since the beginning of recorded history, but understanding these conditions did not come until much later. For example, prior to the 19th century, people with epilepsy who had seizures were thought to be possessed and were shunned or, in some cases, exorcised to release the evil spirits (Weinstein, 2002). The first known description of epilepsy was around 350 BC, but the first real understanding of epilepsy was not shared until the 1800s when a physician, John Hughlings Jackson, provided a basic foundation of the neurology of epilepsy based on his observations (Epilepsy Foundation, 2005). Similarly, cerebral palsy was not formally described

Many students with cerebral palsy will need to use a wheelchair

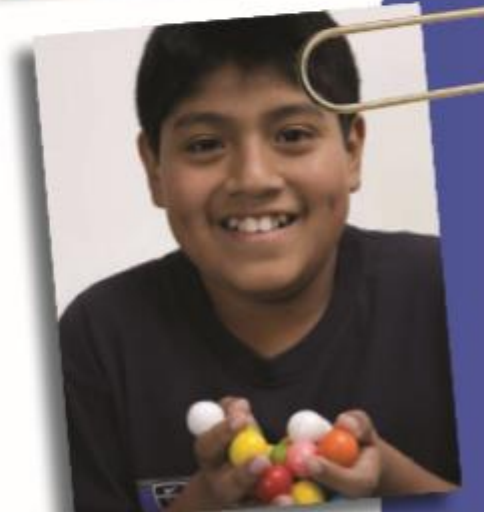
INTRODUCING MARTA, ANDRE, AND BEN

Marta is a 7-year-old girl who lives in a large urban area. She was born a month premature in a difficult delivery and was diagnosed soon after as having cerebral palsy. Her muscle tone is very tight, and she has problems controlling her voluntary motor movements. Although her arms are affected, her legs are affected more, requiring the use of a wheelchair.

To complete her school assignments, Marta needs to use a computer with an adapted keyboard. Although her speech is relatively understandable to those who know her, individuals meeting her for the first time have difficulty comprehending what she says. Because of her motor limitations, it is difficult to assess Marta, but it appears that

her intelligence is in the normal range.

Andre was 9 years old when he had his first seizure. He was sitting in his fourth-grade classroom when he suddenly lost consciousness. His head hit the desk, and he started to jerk and shake. His teacher, Ms. Carothers, recognized that Andre was having a seizure. She helped him out of his desk and laid him gently on the floor, placing his head to the side on a rolled up towel. After the seizure ended, Andre slept for about 10 minutes, waking up groggy and disoriented. He was taken to the nurse's office where he rested until his father picked him up and took him home. Ms. Carothers explained Andre's situation to his classmates, who were frightened by the incident. ▶



Categories of disabilities



before the seizure starts, and he tells his teacher when he notices this.

Ben is a 17-year-old high school student. One night at the beginning of his senior year he went to a party with several of his friends. On the way home, distracted by the joking around in the car, the driver ran a red light and hit another car. Ben was riding in the passenger seat and wasn't wearing his seatbelt. He hit

later and remained there for two weeks, being evaluated and monitored. Ben's physician determined that he had a severe brain injury. When Ben returned to school, his teachers observed that he had lost many of his academic skills, had short-term memory problems, and was easily frustrated and agitated. Both Ben and Ben's parents are having difficulty accepting the changes that they have seen. ■


The types of conditions Marta, Andre, and Ben have are extremely diverse, yet all three are described as physical or health disabilities. In this chapter, we discuss three separate categories recognized under IDEA that can be grouped collectively as physical or health disabilities: orthopedic impairments (OI), other health impairments (OHI), and traumatic brain injury (TBI). An individual with spina bifida who uses a wheelchair (orthopedic impairment), an individual with diabetes (other health impairment), and an individual who has brain damage as a result of a diving accident (traumatic brain injury) would all be considered to have a physical or health disability.

In what categories of disability fall the hearing impaired son of Mr. Holland?

OI

OHI

TBI



An **orthopedic impairment** (OI) is one caused by congenital anomaly, such as clubfoot or the absence of some member; by disease, such as poliomyelitis and bone tuberculosis; and by other causes, such as cerebral palsy, amputations, and fractures or burns that cause contractures.

These conditions need to adversely affect educational performance to be considered as OIs by IDEA.

An **other health impairment** (OHI) is a disorder resulting in limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, which results in limited alertness with respect to the educational environment that

- (i) is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, Tourette's syndrome, and sickle cell anemia; and
- (ii) adversely affects a child's educational performance.

Traumatic brain injury (TBI) is an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition, language, memory, attention, reasoning, abstract thinking, judgment, problem solving, sensory, perceptual, and motor abilities, psychosocial behavior, physical functions, information processing, and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injury induced by birth trauma.

Although the categories of OI, OHI, and TBI represent disabilities with a variety of causes, to qualify for services under IDEA students must share one common criterion—the condition must adversely affect educational performance.

Because brain functions are associated with certain brain areas (see Figure 10.2), particularly in adolescents and adults, a specific injury might result in a very predictable consequence, such as the loss of reasoning and planning (frontal lobe), loss of perception

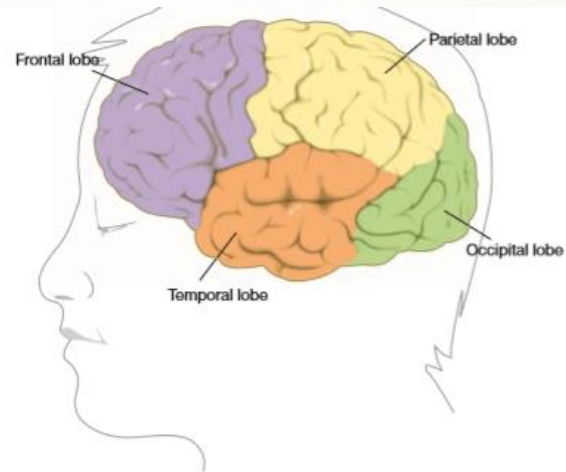


FIGURE 10.2 Lobes of the Brain

Physical or Health Disabilities

(parietal lobe), visual problems (occipital lobe), or auditory problems (temporal lobe). The general characteristics associated with TBI fall into four broad categories: physical, cognitive, social/behavioral, and academic.

Physical characteristics often associated with TBI include problems with coord.



What are some consideration for General Education Teachers

First, teachers should work to make students safe and the environment and equipment accessible. To accomplish this, they can do the following (Wadsworth & Knight, 2009):

1. Work with medical and related services personnel to ensure awareness and understanding of medical and health-related issues and how these should be handled. For example, teachers should become familiar with universal precautions, emergency care plans, and routine treatment plans. Teachers should obtain information about the student and understand the confidential nature of such information.
2. Learn how to make the physical environment safe and accessible as discussed earlier.
3. Learn how to use and adjust assistive equipment as appropriate. Some equipment, such as special wheelchairs, may need a specialist for adjustments or repairs.



What are some consideration for General Education Teachers

Second, general education teachers should make instructional adaptations including the following (Dugger et al., 1999):


1. **Schedule instructional times** to ensure medical concerns and related services can be provided, as well as special education as needed.
2. Make **seating arrangements** that allow for use of assistive technology and equipment while allowing **access to water, electricity, appropriate lighting**, and so forth with minimum disruption to other students.
3. **Adapt materials** to accommodate special needs of students. Teachers may want to use **enlarged print, books on tape, or computer software**. Teachers should be prepared to modify assignments and assessments as needed. For example, they may allow students to take tests orally or provide extra time for students to complete assignments.



What are some consideration for General Education Teachers

Third, general education teachers should support the social and emotional development of students with physical or health disabilities. To accomplish this, they can do the following (Mukherjee et al., 2000):

1. Ensure students can take part in extracurricular activities as appropriate or participate in field trips and other school-related activities.
2. Help students develop relationships with peers. Also, provide assistance and guidance in explaining a student's condition to peers as appropriate.
3. Be sympathetic and a person the student can talk to about concerns. Many of these students have good reason to be worried about their health and medical issues and may need someone to listen to their concerns. Teachers may also wish to consult with counselors or school nurses about such concerns and how to provide emotional support to students with serious medical issues.



Forney, 2009). We recommend the use of the National Institutes of Health website (www.nih.gov) for easily accessible information that is reliable and up to date on an extensive number of physical and health conditions.

Thank You