



Foundations of Special Education

By Dr. Kathleen VanTol

Chapter 10: Low Incidence Disorders: Developmental Delay, Orthopedic Impairment, Traumatic Brain Injury, Hearing Impairment, Orthopedic Impairment, Vision Impairment, and Multiple Impairments

Robert M. Hensel has spina bifida. He is also a poet, a disability advocate, and the holder of a Guinness World Record for the longest wheelchair wheelie. He said,

“There is no greater disability in society than the inability to see a person as more.”

In the video below, his words inspires people with disabilities to live out their abilities.



Video: Positive Identity. (2021, November 17). *Abilities of disabilities*. YouTube.com <https://www.youtube.com/watch?v=gWoLTLb0hBE>

Introduction

The term low-incidence disabilities denotes disability categories that occur relatively infrequently within the school population. This chapter examines several of these categories, including orthopedic impairment, traumatic brain injury, hearing impairment, visual impairment, deaf-blindness, and multiple disabilities. Although these disabilities affect a much smaller percentage of students than the high-incidence disabilities discussed in previous chapters, teachers in inclusive classrooms are still likely to encounter students with low-incidence disabilities during their careers.

The chapter also includes developmental delay. Although developmental delay is considered a high-incidence IDEA category for young children, it is included here because it differs significantly from the other high-incidence disability categories. Unlike the other IDEA categories, developmental delay is not based on a specific disability and is used only for children through age 9 who demonstrate significant delays in one or more areas of development.

Overview of Low Incidence Disability

Nearly 90% of students receiving special education services under IDEA are identified in one of six disability categories: specific learning disability, speech or language impairment, other health impairment (which includes many students with ADHD), autism, intellectual disability, and emotional disturbance. These are commonly referred to as the high-incidence disabilities. Students identified in the remaining IDEA categories, including multiple disabilities, orthopedic impairment, traumatic brain injury, hearing impairment, visual impairment, and deaf-blindness, are generally considered to have low-incidence disabilities. Each of these categories accounts for only about 0.5% to 2% of students receiving special education services under IDEA ([NCES, 2024](#)). The chart below shows the number of children who received special education services in 2024, based on the type of disability.

Children and Youth With Disabilities Receiving Special Education and Related Services by Type of Disability: 2024		
Disability	2024 number of students	2024 % of students
Total	7,590.8	
Specific learning disability	2,516.7	33.2%
Speech or language impairment	1,309.5	17.3%
Other health impairment	1,234.8	16.3%
Autism	1,111.4	14.6%
Intellectual disability	416.5	5.5%
Developmental delay	329.0	4.3%
Emotional disturbance	310.9	4.1%
Multiple disabilities (excluding deaf-blindness)	157.6	2.1%
Hearing impairment	62.5	0.8%
Orthopedic impairment	25.6	0.3%
Traumatic brain injury	23.6	0.3%
Visual impairment	22.9	0.3%
Deaf-blindness	1.7	0.0%
[Numbers of students in thousands (5,078.8 represents 5,078,800). Data covers children and youth age 5 to 21. For children receiving special education and related services under Part B of the Individuals with Disabilities Education Act (IDEA) in all educational settings.]		

Table adapted from:

Department of Education (2026). Children And Youth With Disabilities Receiving Special Education And Related Services By Type Of Disability: 2000 To 2024 [Education Programs, Selected Years, As Of Fall] ProQuest Statistical Abstract of the U.S. 2026 Online Edition.

Developmental Delay

One exception to the distinction between high- and low-incidence disabilities is the IDEA category of developmental delay. Developmental delay is a somewhat unique category. Although it accounts for approximately 7% of students receiving special education services, it is not based on a specific disability and may be used only for children through age 9. The guidelines for this category state that the student must demonstrate a delay in meeting developmental milestones, but do not include any specific diagnostic requirements. While each state can establish its own criteria for identifying developmental delay, this category generally includes children whose development is significantly behind

that of their same-age peers in one or more of the following areas: physical, cognitive, communication, social-emotional, or adaptive behavior development. By age 9, if the student continues to require special education services, the IEP team must determine which IDEA disability category best describes the student's educational needs ([NCES, 2024](#); [CPIR, 2022](#)).

Orthopedic Impairments



School supports for students with orthopedic impairments, cerebral palsy, spina bifida or muscular dystrophy are often similar. The specific services and accommodations will vary depending on the student's strengths, needs, and the progression of the disability.

Image: Akacha, A. (2020, November 21). *A young girl with a backpack using crutches on a street in Idlib, Syria.*

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Students with orthopedic impairments account for approximately 1% of those receiving special education services under IDEA. The category of **orthopedic impairment** includes a wide range of physical disabilities affecting the bones, joints, muscles, ligaments, tendons, nerves, and skin. These conditions can limit a student's ability to control and use their body effectively and may affect gross motor skills, such as standing, walking, or maintaining balance, as well as fine motor skills, such as picking up, holding, or manipulating small objects. Common orthopedic impairments include cerebral palsy, spina bifida, and muscular dystrophy ([NASET, 2024](#)).

Not all students with physical disabilities require special education. However, an orthopedic impairment can affect school attendance and learning to the extent that the student needs specialized supports in order to receive academic benefit. The supports required vary depending on the nature and severity of the student's disability and may include specialized equipment, assistive technology, physical or occupational therapy, or environmental accommodations ([NASET, 2024](#)). IDEA defines an orthopedic impairment as "a severe orthopedic impairment that adversely affects a child's educational performance. This category includes impairments caused by a congenital anomaly, impairments caused by disease (e.g., poliomyelitis, bone tuberculosis), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures)" ([IDEA, 2007](#)).

Cerebral Palsy

Cerebral palsy is a neuromuscular disorder caused by damage to the developing brain. This injury most often occurs before birth but may also occur during the birth process or shortly after birth. Cerebral palsy occurs in approximately 2 out of every 1,000 live births and ranges from mild to severe in its effects. Factors associated with an increased risk of cerebral palsy include premature birth, insufficient oxygen to the developing brain, maternal infection, and maternal exposure to certain toxic substances. Cerebral palsy primarily affects movement, muscle tone, and posture. Some children have hypotonia, or low muscle tone, resulting in weak, floppy muscles and difficulty maintaining an upright posture. More commonly, children with cerebral palsy have hypertonia, or increased muscle tone, which causes muscle stiffness, tightness, and rigid movements of the arms, legs, and trunk. Some children experience a combination of both hypotonia and hypertonia. Cerebral palsy may also affect coordination, balance, and depth perception ([NASET, 2024](#)).

The educational supports provided for students with cerebral palsy vary depending on the severity of the disability but often include a combination of therapies and other specialized supports. Physical therapy focuses on improving strength, mobility, balance, and

functional movement skills such as sitting, standing, and walking. Occupational therapy addresses fine motor skills and activities of daily living, including dressing, eating, handwriting, and the use of adaptive equipment when needed ([NASET, 2024](#)). Many students with cerebral palsy also receive speech-language therapy to support speech, communication skills, and, in some cases, feeding and swallowing. Approximately 25% of individuals with cerebral palsy are unable to produce functional spoken language because the disorder can affect the coordination of the muscles involved in breathing, speech, and oral motor control ([Cerebral Palsy Alliance, 2023](#)).

Spina Bifida

Spina bifida is another common orthopedic impairment. Spina bifida affects the development of the spine and is the most common neural tube defect in the United States. It affects 1 out of every 2,758 children born each year. Spina bifida develops very early in pregnancy when the neural tube, which eventually forms the brain and spinal cord, fails to close completely. This leaves an opening in the spinal column that may expose and damage the spinal cord and nerves. In the most severe forms of spina bifida, the spinal cord protrudes through the opening. Surgery is typically performed within the first 24 to 48 hours after birth to close the opening and reduce the risk of further damage. Depending on the location and severity of the defect, children may experience weakness, loss of sensation, or paralysis below the level of the spinal cord injury. Damage to the nerves that control the bladder and bowel is also common, resulting in difficulties with bladder and bowel control ([NORD, 2007](#); [CDC, 2026](#); [NASET, 2024](#)).

Spina bifida may also affect learning and cognitive development, although the extent of these difficulties varies depending on the location and severity of the spinal cord defect and the presence of associated conditions. Many children with spina bifida are also born with hydrocephalus, a condition in which excess cerebrospinal fluid accumulates within the brain. Hydrocephalus is usually treated surgically by inserting a shunt to drain the excess fluid. If left untreated, hydrocephalus can lead to brain damage, seizures, vision loss, and other serious complications. Not all children with hydrocephalus have spina

bifida, but the two conditions do often occur together. Research also shows that over 70% of those with spina bifida develop an allergy to natural rubber latex, a common component in surgical gloves. For this reason, the [Spina Bifida Association](#) recommends that those with spina bifida avoid contact with all natural latex products. Synthetic latex is man-made and does not pose the same allergy problem as natural latex ([NASET, 2024](#)).

Muscular Dystrophy

One of the best-known orthopedic impairments is muscular dystrophy. It is a group of inherited disorders that affect the body's ability to produce the proteins needed to build and maintain healthy muscle tissue. Because muscular dystrophy is progressive, muscle weakness increases over time, and there is currently no cure. As the condition progresses, everyday activities such as walking, maintaining an upright posture, using the arms and hands, and even breathing become increasingly difficult. Although medications and therapy can help manage symptoms and improve quality of life, they cannot stop the progression of the disease. More than 30 types of muscular dystrophy have been identified. These disorders differ in their age of onset, severity, and the muscle groups they affect. The most common form, Duchenne muscular dystrophy, begins in early childhood and primarily affects boys. It occurs in approximately 1 out of every 3,600 live male births ([NASET, 2024](#); [Venugopal & Pavlakis, 2023](#)).

The progressive muscle weakness associated with muscular dystrophy affects many body systems. One of the earliest and most noticeable effects is reduced mobility resulting from muscle weakness and contractures around the joints. Over time, many individuals require a wheelchair for mobility. For those with Duchenne muscular dystrophy, this usually occurs by age 12. Weakened muscles can also affect the person's ability to maintain an upright posture leading to curvature of the spine. With some types of muscular dystrophy, the efficiency of the cardiac muscles will be reduced, resulting in heart problems. The muscles that are used for breathing can also weaken to the point that the person may need to use a ventilator. When the muscles used for swallowing are affected, eating can be impacted to the point that the person develops nutritional deficiencies. This situation also puts that

person at risk for pneumonia due to aspiration of food or liquids into the lungs. In this situation, the person's health care provider will often suggest placement of a feeding tube as a way to safely deliver nutrition ([NASET, 2024](#)).

School supports for students with spina bifida or muscular dystrophy are often similar to those provided for students with cerebral palsy although the specific services and accommodations will vary depending on the student's strengths, needs, and the progression of the disability. Physical therapists focus on gross motor skills and mobility, occupational therapists address fine motor skills and activities of daily living, and speech-language pathologists support communication skills. As muscle weakness or physical limitations increase, some students may also require adaptive equipment, assistive technology, accessible classroom furniture, additional time for written work, or assistance with mobility and self-care. In addition, students with orthopedic impairments may benefit from adapted physical education. Adapted physical education teachers develop individualized physical activity programs that promote development of motor skills and access to activities which can support the student's physical goals as well as participation in recreational and leisure activities ([NCPEID, 2022](#); [NASET, 2024](#)).

Some students with orthopedic impairments also have intellectual, learning, or other disabilities, while many do not. Likewise, some students require extensive supports due to significant physical limitations or complex medical needs, whereas others require relatively few supports. As with all students receiving special education services, educational planning should be individualized and based on each learner's strengths and support needs. Classrooms should be arranged so that students can move about safely and independently, with pathways free of obstacles and instructional materials readily accessible. Teachers should collaborate with therapists, nurses, families, and other members of the educational team to coordinate therapy schedules, address medical needs, and support student participation throughout the school day. Careful planning is also needed to ensure that students with orthopedic impairments have meaningful opportunities to participate in extracurricular activities alongside their peers ([NASET, 2024](#)).

Traumatic Brain Injury

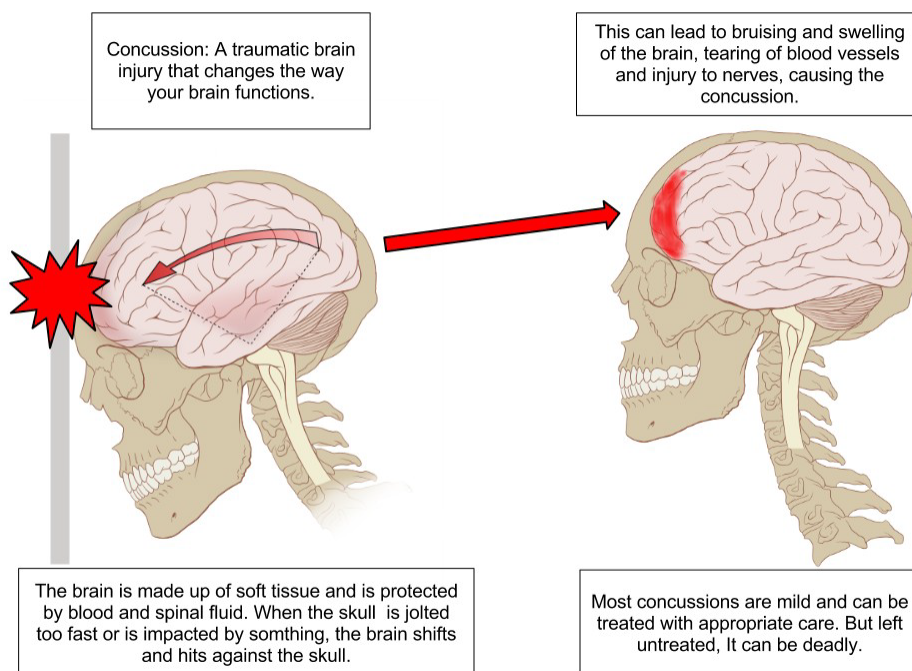


Image: Andrews, M. (2012, May 18). *Concussion anatomy*. Wikimedia Commons (CC BY-SA 3.0)

Traumatic brain injury (TBI) is an acquired injury to the brain caused by an external physical force, such as a fall, motor vehicle accident, sports injury, or assault. The effects of a traumatic brain injury vary widely depending on the location and severity of the injury and may include changes in thinking, learning, memory, attention, behavior, communication, movement, and emotional regulation. Under IDEA, traumatic brain injury is defined as "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. Traumatic brain injury 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. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma" ([IDEA, 2007](#)).

The scalp and skull normally protect the brain from injury. An open head injury occurs when this protective covering is penetrated, resulting in damage to the brain. In contrast, a closed head injury occurs when an external force causes the brain to move within the skull while the scalp and skull remain intact. Open head injuries typically cause damage that is localized to the site of the trauma, whereas closed head injuries often result in more widespread damage because the force of the impact can compress, stretch, or shear brain tissue ([NASET, 2024](#)).

Falls, such as falling out of bed or falling down the steps, are the leading cause of TBI overall, while motor vehicle accidents are the second leading cause. However, among school-age children and adolescents, motor vehicle accidents are the most common cause of TBI. Other common causes include sports injuries, violent assaults, and child abuse. Brain injury occurs in two stages. The primary injury results from the immediate effects of the impact, such as bruising, bleeding, or skull fracture. This may be followed by secondary injury, which develops over time and may include brain swelling, seizures, or increased pressure within the skull. In many cases, the secondary injury causes even more extensive damage than the initial trauma ([Mayfield Brain & Spine, 2018](#); [NASET, 2024](#)).

The effects of a TBI vary depending on the location and severity of the injury. Some individuals experience only mild difficulties, while others have significant long-term disabilities. A TBI can affect physical functioning, cognition, learning, behavior, communication, or any combination of these areas. Physical effects may include muscle weakness, impaired balance, poor coordination, difficulties with movement, headaches, dizziness, and seizures. Cognitive changes commonly affect attention, memory, problem-solving, reasoning, and executive functioning skills. Executive functioning includes skills such as planning, organization, self-monitoring, and maintaining attention, all of which are important for successful learning. Although long-term memories formed before the injury are often preserved, students may have difficulty learning, processing, and remembering new information. Behavioral and emotional changes can be significant and can affect relationships and social interactions. These may include anxiety, depression, irritability, agitation, and mood swings. Some individuals also experience expressive or receptive

language difficulties, including challenges with the pragmatic use of language in social interactions ([BrainLine, 2017](#); [Mayo Clinic, 2021](#); [NASET, 2024](#)).

Teachers and other school personnel play an important role in helping students transition back to school following a hospitalization, rehabilitation program, or extended absence due to a TBI. Depending on the effects of the injury, students may require an Individualized Education Program (IEP) or a Section 504 Plan to address any learning, communication and behavioral needs that might be present. While the effect on learning will vary depending on the location and severity of the brain injury, teachers should be prepared to provide additional strategies and supports in the areas of attention, memory, organization, following directions, and learning new information. It can take time for these students to learn to use the new strategies and for teachers to determine which strategies and supports are most effective. Teachers should also be aware of the emotional stress of a TBI. A brain injury occurs as the result of a sudden, traumatic event. It may be hard for those affected to adjust to the new reality of the changes that have occurred. Family, friends, and teachers remember what the student was like before the injury. Often the student can also remember the way things were before the injury. This stress may affect the student's educational progress and, in some cases, individual or family therapy may be needed to help with this emotional stress ([NASET, 2024](#)).

Deafness and Hearing Impairments



Because hearing is so closely tied to language and communication, IDEA requires IEP teams to give special consideration to the communication needs of students who are deaf or hard of hearing.

Image: SHVETS Production. (2021, March 15). *Two women communicating using sign language in a library setting.*

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Nearly 80% of students with hearing loss are educated in inclusive school settings ([NCES, 2023](#)). Under IDEA, hearing loss is divided into two eligibility categories: hearing impairment and deafness. A hearing impairment is defined as "an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness" ([IDEA, 2007](#)). Deafness is defined as "a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, that adversely affects a child's educational performance" ([IDEA, 2007](#)). Because hearing is so closely tied to language and communication, IDEA also requires IEP teams to give special consideration to the communication needs of students who are deaf or hard of hearing. These considerations include the student's language and communication mode, opportunities for direct communication with peers and professionals, access to instruction in the student's preferred language or communication mode, and the need for assistive communication devices and services ([IDEA, 2017](#)).

The first months of life are critical for language development. For this reason, all children need early exposure to language, whether spoken or signed. Through the Early Hearing Detection and Intervention (EHDI) program, approximately 98% of infants born in the United States receive a hearing screening before 1 month of age. Early identification allows children with hearing loss to begin intervention as soon as possible, providing access to language and supporting the development of communication skills. Approximately 2 out of every 1,000 infants screened in the United States have hearing loss in one or both ears. By ages 3 to 17, the prevalence increases to approximately 5 out of every 1,000 children. Worldwide, the World Health Organization estimates that more than 5% of the population has a disabling hearing loss ([CDC, 2025](#); [NIDCD, 2024](#); [WHO, 2024](#)).

Because typical hearing development follows a predictable pattern, developmental milestones can help identify children who may have hearing loss. During the first 6 months of life, babies should startle at loud sounds, respond to familiar voices, and move their eyes or head to look in the direction of a sound. By 1 year of age, children typically respond when their name is called, understand familiar words such as mommy, daddy, and juice, and enjoy listening to short songs or stories ([ASHA, 2024](#)). By age 2, children should be able to follow simple directions, answer simple questions such as "Where's your shoe?", and point to pictures when they are named. Between the ages of 2 and 3, children are busy learning many new words, can follow two-step directions, and are beginning to learn words for colors and shapes ([ASHA, 2024](#)). Between the ages of 4 and 5, they begin to understand words for time such as yesterday, today, and tomorrow, words for order such as first, next, and last, and can follow longer directions ([ASHA, 2024](#)). Children who are not meeting these developmental milestones should receive a comprehensive hearing evaluation. Audiologists can assess hearing at any age, including infancy, allowing hearing loss to be identified and intervention to begin as early as possible ([ASHA, 2024](#)).

Teachers can use a variety of strategies to better support students who are deaf or hard of hearing. Simple but effective practices include facing students when speaking, using visual supports such as pictures, diagrams, and graphics, and minimizing background noise whenever possible. The classroom can also be intentionally arranged in ways that better

support children with hearing loss. For example, students may benefit from preferential seating near the teacher to make speech easier to hear and to support [speechreading](#). Arranging desks in a U-shape can also make it easier for students who are deaf or hard of hearing to see both the teacher and their classmates, promoting communication and classroom participation. In addition, technology can also be used to support learning, such as by providing real-time captioning for videos that are shown in class ([PaTTAN, 2018](#); [KidsHealth, 2021](#)).

While not all children with hearing loss will benefit from hearing aids, many students do rely on these devices to amplify the sounds in the classroom. Hearing aids work best in relatively quiet environments and when the speaker is within two feet of the wearer. Because hearing aids amplify background noise as well as speech, reducing unnecessary classroom noise is especially important. Hearing aids also require batteries or rechargeable power sources, and schools should have a plan for addressing equipment issues that arise during the school day. Some students also use personal FM or digital remote microphone systems. With these systems, the teacher wears a microphone transmitter and the student wears a receiver connected to the hearing aid or other listening device. These systems improve access to instruction by transmitting the teacher's voice directly to the student while reducing the effects of background noise and distance. Audiologists are an important part of the educational team for students with hearing loss and can advise on the hearing technology and assistive devices that will best meet each student's individual needs ([Communication Health Support Association, n.d.](#); [PaTTAN, 2018](#); [KidsHealth, 2021](#)).

Want to learn more? Read the [Bill of Rights for Deaf and Hard of Hearing Children](#) (National Association of the Deaf, 2016).

Visual Impairments



Students with visual impairments may experience eye fatigue, sensitivity to glare, or fluctuations in vision related to health, fatigue, or lighting conditions.

Image: Miroshnichenko, T. (2021, January 26). *A girl reading braille*. Pexels.com (CC free to use).

Much of what students learn in school is presented visually. Although many students with visual impairments have some usable vision, it is often so limited that it affects their learning. Under IDEA, "visual impairment including blindness means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness" ([IDEA, 2007](#)).

In addition to reduced visual acuity, students with visual impairments may experience eye fatigue, sensitivity to glare, or fluctuations in vision related to health, fatigue, or lighting conditions. Students with visual impairments are served in a variety of settings from inclusive classrooms to residential programs; however, the percentage of these students that are educated in separate schools has greatly decreased over time. Instead, most students who are blind or have low vision receive specialized services from a teacher of students with visual impairments (TVI) while attending their local school. TVIs teach a variety of skills and strategies that support academic success, including Braille, the use of assistive technology, and techniques for accessing classroom materials. Orientation and mobility (O&M) specialists also help students develop the skills needed to travel safely and

independently within school and community environments ([CPIR, 2017](#); [Willings, 2025](#); [Cameto & Nagle, 2008](#)).

Teachers can make many simple classroom adjustments that will improve access for students with visual impairments. Preferential seating should be provided to maximize the student's use of remaining vision. Adequate lighting is important, while glare from windows or overhead lights should be minimized because it can interfere with visual performance. Students should also be allowed to change seats when necessary to improve their view of instructional materials. Teachers should use high-contrast materials whenever possible, such as black markers on a whiteboard or white chalk on a green chalkboard. Students may also need printed copies of any classroom presentations. Teachers should avoid saying "over here" or pointing without providing a verbal description of what they are referring to. Instead, they should describe visual information aloud and identify important features of diagrams, charts, demonstrations, and classroom activities. Printed materials may need to be enlarged and should be clear, uncluttered, and of high copy quality with adequate spacing between text and graphics. Students with visual impairments may also benefit from tactile materials and hands-on learning experiences ([CPIR, 2017](#); [Willings, 2025](#)).

Deaf-Blindness and Multiple Impairments

Two IDEA eligibility categories are specifically intended for students with more than one disability: deaf-blindness and multiple disabilities. Both categories serve relatively small numbers of students. IDEA defines deaf-blindness as "concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness" ([IDEA, 2007](#)). Students with deaf-blindness have a range of sensory impairments. While some of these students are profoundly deaf and completely blind, most have some amount of usable hearing and/or vision. More than half of these students have complex health care needs and 87% have additional disabilities. Because of their highly individualized needs,

students who are deaf-blind may be educated in inclusive classrooms, separate schools, or residential programs. Every state also has a federally funded deaf-blind project that provides training, consultation, and support for families and educators ([National Center on Deafblindness, 2024](#); [IDEA, 2007](#)).

IDEA defines multiple disabilities as "concomitant impairments (such as intellectual disability-blindness or intellectual disability-orthopedic impairment), the combination of which causes such severe educational needs that they cannot be accommodated in special education programs solely for one of the impairments. Multiple disabilities does not include deaf-blindness" ([IDEA, 2007](#)). Multiple disabilities is not a particularly helpful term in that it doesn't indicate which disabilities a student has or how severe they are. Different combinations of disabilities will have a different combined impact. Students with multiple disabilities may only need intermittent support or they may need more extensive ongoing support. These students will likely need accommodations and/or modifications to access grade level educational materials as well as specialized instruction to address their unique learning needs. They will likely also benefit from access to assistive technology as well as a variety of related services ([CPIR, 2019](#); [IDEA, 2007](#)).

Conclusion

Students with low-incidence disabilities have a wide range of strengths, needs, and educational challenges. While these disabilities often require specialized supports, assistive technology, and the expertise of multiple professionals, the goal remains the same: to ensure that every student has meaningful opportunities to learn, participate, and belong. Educational decisions need to be based on each learner's unique abilities, interests, and support needs. Achieving this goal requires collaboration among teachers, families, related service providers, and the students themselves. By maintaining high expectations, removing barriers to participation, and providing individualized supports, educators can help students with low-incidence disabilities develop greater independence, build meaningful relationships, and fully participate in school and community life.

Notice and Reflect

Observe a classroom or other educational setting and pay attention to how students with diverse learning and physical needs are supported and how these supports influenced student participation and learning. Notice the instructional strategies, classroom organization, assistive technology, communication systems, and interactions between teachers, peers, and related service providers.

Reflect

- Which supports appeared to be most effective?
- Were there barriers that limited participation for particular students?
- Consider one of the low-incidence disabilities covered in this chapter. What additional accommodations or instructional practices might help a student with this disability participate more fully in classroom learning and school life in your chosen setting?

Glossary

- **Cerebral palsy.** A neuromuscular disorder caused by damage to the developing brain.
- **Muscular dystrophy.** A group of inherited disorders that affect the body's ability to build and maintain healthy muscle tissue.
- **Orthopedic impairment.** Category includes a wide range of physical disabilities affecting the bones, joints, muscles, ligaments, tendons, nerves, and skin.
- **Speechreading.** The process of understanding a speaker's words by watching their lip movements, facial expressions, and body gestures, combined with the context of a situation.
- **Spina bifida.** A neural tube defect that affects the development of the spine

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Recommended citation

VanTol, K. (2026). *Foundations of special education* (3rd ed.). Dordt University.

<https://manifold.open.umn.edu/projects/foundations-special-education>



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