

Considerations for Students with Hearing Loss or Deafness

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Overview:

Individuals who have hearing loss or are deaf encompass a diverse range of people. Their diversity includes their level of hearing, age of onset, educational background, communication methods, and cultural identity. Individuals within these communities may consider themselves to be part of the Deaf community while others may not. It is also important to understand that many individuals who are hard of hearing (HOH) or deaf do not view their hearing difference as a deficit and do not believe that their hearing loss is a problem that needs to be fixed. It is important to understand everyone's experience and identity is unique. The school nurse should not make assumptions and should talk with the student and their family about their needs and goals and be an advocate within the school community to ensure the student's needs are being met.

Types of Hearing Loss:

- *Conductive*: Caused by something that stops sound from getting through the outer or middle ear. This type of hearing loss can often be treated with medicine or surgery.
- *Sensorineural*: Occurs when there is a problem in the way the inner ear or hearing nerve works.
- *Mixed*: Includes both conductive and sensorineural hearing loss.
- *Auditory Neuropathy Spectrum Disorder*: Occurs when sounds enter the ear normally, but because of damage to the inner ear or the hearing nerve, sound isn't organized in a way that the brain can understand (Center for Disease Control and Prevention, 2023a).

Technology:

Residual hearing is the amount of hearing that a deaf or hard-of-hearing (HOH) person has. Technology such as hearing aids, cochlear or brainstem implants, and bone-anchored hearing aids can help make the most of the individual's residual hearing.

- [Hearing Aids](#): Make sound louder. There are many different types of hearing aids including behind-the-ear, in-the-ear, and hearing aids that fit into the ear canal.
- [Cochlear Implant](#): Are appropriate for students with severe hearing loss when hearing aids are not enough. A cochlear implant does not amplify the sound, it sends sound signals to the auditory nerve.

- [*Auditory Brainstem Implant*](#): Students with profound hearing loss caused by an absent or small auditory nerve may require an auditory brainstem implant. The implant bypasses the inner ear and auditory nerve and directly stimulates the hearing pathways in the brainstem.
- [*Bone-Anchored Hearing Aids*](#): Are appropriate for students with either conductive, mixed, or unilateral hearing loss. They are useful for students who cannot wear in-the-ear or behind-the-ear hearing aids.
- [*Frequency Modulation \(FM\) System*](#): [downloads as an attachment] Is a device that helps a student with hearing loss hear in background noise. The system sends sound from a microphone used by the person speaking, to the student wearing the device. The system can be used with hearing aids when an extra piece is attached to the hearing aid (Centers for Disease Control, 2023b).

Terminology:

Individuals within the Deaf community may identify themselves as Deaf, DeafDisabled, DeafBlind, Hard of Hearing, and Late-Deafened. How they identify themselves may be impacted by the degree to which they can hear and/or the age of onset. The school nurse should confirm the terminology that the student and their family use. There are some terms that are no longer recommended to be used. They include, Deaf and Dumb, Deaf-Mute, and Hearing-Impaired. Deaf and Dumb is a term that is offensive for a number of reasons, including that it indicates that the person who is deaf has a cognitive disability and/or that they are silent and unable to use their voice. Deaf-Mute is also not recommended as the term indicates that the person does not have a voice which is inaccurate. The phrase hearing impaired is not recommended because it focuses on what people cannot do. It indicates that the standard is hearing and the inability to hear means that the person is “damaged or substandard” (National Association of the Deaf, 2024). It is important to point out that the Individuals with Disabilities Act (IDEA) uses the term Hearing Impairment and Deafness. IDEA defines hearing impaired 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 in this section (IDEA, 2017b) and deafness 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, 2017a). See the Glossary below for more terminology and definitions.

Sign Language:

Sign languages are natural languages with their own grammar, vocabulary, and dialects. There is no universal sign language and countries and regions across the globe have their own signed languages. American Sign Language (ASL) is the most widely used sign language in the United States, but Black American Sign Language (BASL) and Plains Indian Sign Language (PISL) is also used. ASL is not a communication tool that represents English, it is its own distinct language (National Deaf Center, n.d.).

School Accommodations:

The student who is hard of hearing or deaf may have an Individualized Education Program or a Section 504 Plan. Many of the accommodations provided to the student will be related to the environment, technology, and instruction and the school nurse may have limited responsibility for implementing these accommodations. [Section 300.113 of the Individuals with Disabilities Education Act](#) and [Missouri Office of Special Education Compliance Standards and Indicators](#) requires schools to ensure that the student's hearing aids and external components of surgically implanted medical devices are checked regularly to ensure they are functioning properly. Depending on the resources available within the school district, the device checks may be performed by the speech and language pathologist, the teacher, the educational audiologist, or the school nurse. At a minimum, the school nurse should be aware of who is performing the device checks.

Another area that the school nurse should ensure is addressed in the student's plan is what interventions may be needed during an emergency situation such as shelter-in-place or in an emergency evacuation. The student may require additional support or communication accommodations (Robarge & Pontius, 2012). The school should have a telecommunication device for the deaf (TDD) so the student who is deaf or HOH can communicate with their parent/guardian and if the student's parents are deaf or HOH, the school can communicate with them (John, 2019).

An additional important accommodation that a student who is HOH or deaf may require are services provided by [educational audiologists](#) and [speech and language pathologists](#). School nurses may play a role in ensuring the student has the necessary equipment at school, checking that the equipment is in working condition, and assisting with emergency preparedness. Many of the necessary interventions, such as recommending, fitting, and managing hearing assistance technology is outside the scope of the school nurse (Educational Audiology Association, 2010, Meyer, 2019). If the student does not have access to these professionals, it may be necessary for the school nurse to advocate for these services.

Role of the School Nurse:

- Identify the terminology that the student and their family use to describe the hearing loss (i.e., deaf, hard of hearing, etc.).
- Become familiar with the student's device and the reason the student has the device.
- Determine how to verify that the device is working correctly.
- Be familiar with the device's proper program and volume settings, if applicable.
- Ensure the student has extra supplies at school as appropriate (i.e., extra batteries stored in childproof container).
- Determine what precautions should be taken when the student is engaging in physical activity or being exposed to water/moisture (i.e., removing the device).
- For students with a cochlear implant: Instruct the student to use caution around plastic play equipment and to not use electronic static generators at science museums. Certain levels of electrostatic discharge can damage a cochlear implant. Review the manufacturer-specific guidelines in the device's user manual or online.

- Determine who is completing the daily hearing aid check or external components of surgically implanted medical devices check to ensure the devices are functioning properly.
 - The following information should be checked:
 - Hearing Aid and Cochlear Implant Checklist:
 - Check the batteries with a battery tester to ensure a full charge. Replace if necessary.
 - For a student with hearing aid(s): Check the earmold and clean any wax/dirt from the opening.
 - Perform the Ling test with a silent prompt and note any changes from the student's typical response.
 - The individual checking the devices should have the proper knowledge and training to perform the [Ling test](#) (ah, ee, oo, s, sh, m).
 - Bone-Anchored Device Checklist:
 - Check the battery.
 - Ensure the device is set to the correct program.
 - Review volume controls.
- Ensure the device checks are being documented in the student's health care record.
- Assess whether the student and their family require any assistance in accessing health care services, including mental health, technology, and/or other resources, such as disability services or financial assistance.
- Provide linkages to necessary health care and resources.
- Determine what students should not participate in school-based hearing screenings, if applicable.

(Central Institute for the Deaf, n.d.a-c., Finley, 2011, John, 2019)

Glossary:

- bimodal-bilingual: bilingual competency in at least one oral language and at least one sign language.
- coda or CODA (Children of Deaf Adults): refers to typically hearing children born to Deaf parents who use sign language and balance their Deaf and hearing cultural experiences.
- deaf and hard of hearing: refers to a collective group that does not necessarily coincide with audiometric hearing thresholds. It is intended to be inclusive of an entire spectrum of individuals representing different hearing levels and types as well as varied cultural identities ("deaf or hard of hearing" when referencing an individual).
- Deaf (with an uppercase "D"): refers to an individual or group of people who identify as part of a shared Deaf cultural community regardless of hearing levels or hearing technologies used. These individuals typically use signed languages (e.g., American Sign Language) in this community, being Deaf is not viewed as a disability but as an attribute that positively contributes to society.

- deaf (with a lowercase “d”): refers to people who are audiotically deaf based on hearing thresholds in the severe-profound range, but who may or may not identify with Deaf culture.
- deaf-blind: refers to deaf or hard of hearing individuals who have low vision or are blind, thus limiting access to both auditory and visual information.
- deaf and/or hard of hearing with disabilities: refers to deaf or hard of hearing individuals with concurrent diagnoses (e.g., intellectual disability) who may exhibit more complex communication needs.
- hard of hearing: refers to people who have hearing thresholds in audiologic ranges that would typically result in functional benefit from amplification and/or hearing assistive technologies (e.g., 26 to 55 dBHL). Some people who identify as hard of hearing primarily use listening and spoken language to communicate, while others use signed language or are bimodal-bilingual.
- late-deafened: refers to people who grew up hearing, then lost most or all their hearing later in life to the level of becoming audiotically deaf may communicate using a combination of spoken language, signed language, and/or other visual systems (American-Speech-Language-Hearing Association, n.d.).

Resources:

- [American Cochlear Implant Alliance](#)
- [CDC: Hearing Loss](#)
- [Central Institute for the Deaf](#)
- [Classroom Acoustics](#)
- [Cochlear Implants](#)
- [Deaf Culture](#)
- [Ear Diagram](#)
- [Educational Audiology Association](#)
- [Hearing Assistive Technology \(HAT\)](#)
- [Hearing Loss Association of America](#)
- IEP Accommodations:
 - [IEP Accommodations](#)
 - [IEP/504 Checklist](#)
- [Information on 504 and ADA Obligations](#)
- Ling Test
 - [Ling Test Demonstration](#)
 - [Ling Test Checklist](#)
- [Missouri Commission for the Deaf and Hard of Hearing](#)
- [Missouri School for the Deaf](#)
 - [Hearing Aid Help](#)
- [Types of Hearing Aids](#)

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