AUDIOLOGY INFORMATION SERIES



Identifying and Managing Hearing Loss in School-Age Children

What should I do if my child fails a hearing screening at school?

Hearing screenings are done to identify children who may have hearing loss. The result of a hearing screening will be either "pass" or "fail." Your child may have failed a hearing screening if they did not understand instructions, were distracted, or had an undiagnosed hearing loss. If your child failed a hearing screening, they should be tested by a licensed audiologist to learn more about the type and amount of hearing loss.

How does an audiologist test my child for hearing loss?

An audiologist will use a series of tests that show how the different parts of the ear are working. Tests may include the following:

- **pure-tone audiometry** identifies the softest sounds that your child hears— ranging from low to high pitches.
- speech audiometry identifies the softest speech sounds your child hears and how well they recognize words.
- tympanometry measures movement of the eardrum and bones inside the ear in response to sound stimulation as pressure changes.
- acoustic reflex measures movement of a muscle inside the ear in response to loud sounds.
- otoacoustic emissions (OAE) measures sounds given off by the inner ear when responding to sound stimulation.

Your child will actively take part in the puretone and speech audiometry tests. Tympanometry, acoustic reflex, and OAE tests do not require your child to respond, but those tests are best done when your child is quiet and not moving for a short period of time. Together, these tests provide information on how the different parts of the ear work. If your child is not able to respond to the tests in a reliable way, a threshold **auditory brainstem response (ABR) test** may be done. The ABR identifies the softest sound that can be seen through brain activity recorded on a special machine. This test requires that your child be quiet and not moving (asleep is best) for up to 60–90 minutes. Because movement interferes with testing, some children may need to be sedated to complete an ABR test.

What are the different types of hearing loss?

- **Conductive** hearing loss happens when sound doesn't move well through the outer ear (e.g., ear canal, eardrum) and/or the middle ear. Causes of conductive hearing loss can include ear infections, head injuries, or too much earwax.
- Sensorineural hearing loss is when sound does not move well through the inner ear or the hearing nerve. Causes can include family history, loud noise, injury to the body or head, or some medicines that can affect the ear (for example, some cancer treatment medications).
- **Mixed** hearing loss is a combination of conductive and sensorineural hearing loss.

Can hearing loss be treated?

Hearing loss can be caused by many reasons including, but not limited to, those listed above.

Depending on what caused the hearing loss, it may be temporary or permanent. For example, hearing loss due to earwax buildup or an ear infection is usually temporary and will likely get better once the earwax is removed or the ear infection is treated. Hearing loss due to family history, loud noise, injury, or the use of certain medicines is more likely to be permanent but can be helped with devices to amplify sound. These devices include hearing aids and cochlear implants.



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The audiologist will give you information about your child's affected ear and how serious the hearing loss is. If your child has a hearing loss as determined by an audiologist, they should also be seen by a medical doctor who specializes in disorders of the ear, nose, and throat (ENT or otolaryngologist). The ENT physician will evaluate your child to determine the cause of the hearing loss and whether the loss can be treated with medicine or surgery. If the hearing loss cannot be treated with medicine or surgery, the audiologist will guide you through the process of choosing and fitting an amplification device(s) to assist your child's hearing. The audiologist will also monitor your child with routine evaluations and adjust the hearing device(s) as needed.

What happens if hearing loss goes untreated?

Untreated or unmanaged hearing loss can cause delays in speech and language development, difficulty learning, and social/emotional struggles.

Because a child with untreated or unmanaged hearing loss cannot hear speech clearly, they could have trouble producing speech sounds and understanding what is said to them. Delays in speech and language development can lead to difficulty learning new words, forming sentences, and reading. Children who have trouble communicating and who fall behind in school may have low self-esteem, feel frustrated, and become more isolated.

How can I help my child get used to hearing amplification devices?

Early amplification is important in reducing the effect of hearing loss on children. After an audiologist has fitted your child with an amplification device, you play an important role in helping your child adjust to the new device.

Here are some ways you can help your child:

- Encourage your child to use their amplification consistently throughout the day, every day. Consistent stimulation to the brain will help cognitive function.
- Teach your child to describe their hearing loss, strengths, weaknesses, and amplification devices to family and friends. Doing so will help your child to develop confidence in talking about their hearing loss and what can help them.

How can I get support from my child's school?

If your child has a hearing loss, they may have difficulty hearing the teacher in a classroom even if they use a hearing device because the teacher may be across the room, or the room may be noisy. School systems can put supports in place that make access to instruction easier.

- A 504 plan addresses accommodations, such as preferential seating, special cues that teachers can use to gain student attention, checks for student understanding, or use of an FM system with the student's personal amplification device to enhance the teacher's voice.
- An Individualized Education Plan (IEP) addresses a student's need for specialized instruction (for example, support with reading, writing, math) or related services (examples include a speech-language pathologist or teacher of deaf or hard-ofhearing students).
- To get started with determining eligibility for a 504 plan or IEP, contact your child's school administration or counselor.

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If you have concerns about your child's hearing, consult with an audiologist for assistance with individual hearing needs. <u>Find a certified audiologist on ASHA ProFind</u> <u>online directory.</u>

Content contributed by ASHA member Mei-Ling Chen, M.A., CCC-A.

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Notes:

For more information and to view the entire Audiology Information Series library, visit <u>www.asha.org/aud/pei/</u>.

For more information about balance problems, preventing falls, hearing loss, hearing aids, or referral to an ASHA-certified audiologist, contact:



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