

Hearing Impairments in School-Aged Children

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Hearing loss is not just a problem for the elderly. Many children suffer hearing loss due to infections, disease, or congenital (before birth) hearing loss. Environmental factors and medications can also cause hearing loss in children. Regardless of the cause, many classroom teachers have students with a hearing loss, and these students often wear hearing aids.

The purpose of this newsletter is to introduce intervention methods used with the child with hearing impairment.

Hearing Tests:

In most schools, children are screened for hearing loss by the school nurse, speech-language pathologist, or audiologist. A hearing screening involves testing a child's ability to hear different frequencies (tones) at various decibels (loudness). Hearing screening typically involves testing at the frequencies 500 Hz (Hertz), 1000 Hz, 2000 Hz, and 4000 Hz at a loudness level of 25 decibels. This ensures that a child can adequately hear all the frequency levels needed to understand speech at an adequate loudness level. School screenings only test a small range of hearing. Any child who fails this screening (and a rescreening) (s)) may be sent to an ENT (Ear-Nose-Throat doctor) or audiologist for further testing.

Hearing Aids:

Technology and research have improved hearing amplification devices over the past 20 years. There are three major types of hearing aids: body, behind-the-ear, and in-the-ear. Age and severity of the loss will determine which aids your student wears.

- 1. Body:** In this type of aid, the child wears the battery case in his/her pocket or clipped on to his/her clothing. A cord attaches to the aids, which are worn in the ear. This aid was the first type to be manufactured and resembles a "walkman radio." It is the most durable; however, it is the most noticeable and heaviest.

2. **Behind-the-Ear:** In this type of hearing aid, the majority of the hearing aid is placed behind the ear. This aid is less noticeable and very common for school-aged children. Aids may be worn in one or both ears.
3. **In-the-Ear:** These are the smallest hearing aids. The amplification device and the battery fit in the ear canal. There may be an aid in one ear or both.

If one of your students wears a hearing aid, watch for the following:

- A buzzing or humming sound. The volume may be too high.
- A sticky orange coating. The aid may be blocked with wax.



Speech and language disorders of those with hearing impairment:

Since the auditory pathway is an integral part of learning speech and language, speech and language disorders are commonly associated with hearing loss. Articulation disorders, especially involving the higher frequency sounds (“s”, “z”, “j”, “sh”, and “ch”), are common. Sound substitution errors are also common.

The language of a child with hearing impairment may be delayed in the early years. With early identification and intervention, language may progress to be within the typical range by the time the child goes to school.

There also may be a notable difference in the vocal quality of a hearing impaired child. This generally is due to the child having difficulty monitoring the quality of his/her own voice.

The speech-language pathologist is qualified to treat speech and language disorders secondary to hearing impairment. Many speech-language pathologists are trained in lip reading, sign language, and hearing testing. Speech therapy for children with hearing often impairments is called Aural Habilitation and/or Auditory Verbal Training. The key to success is the combination of hearing aid use with intensive training in communicative skills.

Conclusion:

If you suspect one of your students may have a hearing problem, contact the school nurse, speech-language pathologist, or audiologist.