

Childhood Hearing Loss

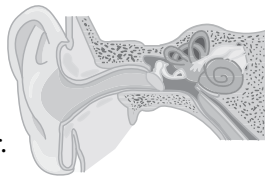
Early detection of hearing loss and early use of hearing aids or cochlear implants are critical for the development of speech, language, and communication skills in children with hearing loss. In fact, children identified with a hearing loss by 6 months of age who received a hearing aid or cochlear implant and habilitation services have been shown years later to have language skills similar to those of children of the same age who have normal hearing.

If your baby has failed newborn hearing screening in the hospital, you will be referred to an audiologist for the child to receive a complete diagnostic hearing test. Based on this testing, the audiologist will be able to tell you if your baby has a hearing loss and, if so, the type and degree of hearing loss, as well as provide you some ideas about what to do next.

Most parents know very little about hearing loss. If your child has been diagnosed with hearing loss, you will have much to learn. Fortunately, there are many people who are there to support you in this journey.

How We Hear

The ear can be divided into three parts leading up to the brain—the outer ear, middle ear, and inner ear.



- Outer ear: Sound travels down the ear canal, striking the eardrum and causing it to move or vibrate.
- Middle ear: Vibrations from the eardrum cause tiny bones to vibrate, which, in turn, creates movement of the fluid in the inner ear.
- Inner ear: Movement of the fluid sends electric signals from the inner ear up the auditory nerve (also known as the hearing nerve) to the brain.

The brain then interprets these electric signals as sound.

Types of Hearing Loss

Conductive hearing loss is caused by a problem in the outer or middle ear that blocks the normal flow of

sound to the inner ear. This type of hearing loss is often medically or surgically treatable. Causes of conductive hearing loss include fluid in the middle ear, wax in the ear canal, malformation of the middle ear bones or ear canal, or a hole in the eardrum.

Sensorineural hearing loss is most often caused by a problem in the inner ear. This type of hearing loss is often permanent and cannot be medically or surgically treated. Causes of sensorineural hearing loss include genetic factors, lack of oxygen during birth, and prenatal infections.

Mixed hearing loss is caused by a combination of both conductive and sensorineural hearing loss in the same ear.

Auditory neuropathy (auditory dyssynchrony) occurs when the inner ear is working but the sound is not reaching the hearing nerve in the proper way. Sounds are either distorted or not heard at all.

Degree of Hearing Loss

The amount of hearing loss your child has is called the “degree” of hearing loss. The degree of hearing loss can be mild, moderate, severe, or profound. It is important to understand that even a “mild” hearing loss can affect your child’s speech and language skills.

Hearing Tests

Audiologists use a number of different tests to help determine the type and amount of your child’s hearing loss. Often, hearing aids will be recommended. Depending on the amount or degree of your child’s hearing loss, cochlear implants may also be discussed. You will also be referred to the early intervention program in your area.

Hearing Aids/Cochlear Implants

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Early Intervention Services

Hearing loss can have a major impact on a child's development, so early intervention services are critical. The services provided will depend on each child's individual needs and the wishes of the family. Usually, these services are provided in the home or in the location where your child spends most of his or her waking hours.

The type of communication method you decide to use with your child guides the early intervention plan. A variety of communication methods are available. You should select a method based on your needs and the needs of your child. Communication methods include the following:

Listening and spoken language (also referred to as auditory-verbal or auditory-oral): The infant or young child is fitted with hearing assistive devices. The child

is then exposed to the language of the home through listening and talking, leading to spoken language in the home and school, and among peers.

Cued speech or cued language: This method utilizes specific hand shapes and placements around the face to clarify the ambiguity of lipreading.

American Sign Language (ASL): The infant or young child is exposed to language through vision, which leads to signed language in the home and school, and among peers. ASL's grammatical structure is different from that of spoken English.

Total communication: This method represents the simultaneous use of spoken language and English-based signed language.

NOTES:

For more information about hearing loss, hearing aids, or referral to an ASHA-certified audiologist, contact the:



AMERICAN
SPEECH-LANGUAGE-
HEARING
ASSOCIATION

2200 Research Boulevard
Rockville, MD 20850
800-638-8255

E-mail: actioncenter@asha.org
Website: www.asha.org

Compliments of

American Speech-Language-Hearing Association

2200 Research Boulevard, Rockville, MD 20850 • 800-638-8255

