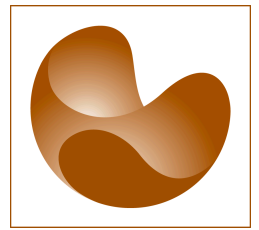


HEARING LOSS IN CHILDREN



How Does This Hearing Loss Affect My Child?

Degree and type of hearing loss are critical in a child's speech development.

Mild Hearing Loss

A Child with mild hearing loss usually has normal speech, but will have trouble in the school setting because it will be difficult to hear speech from more than 4 metres away or when there is background noise. This is because much of the meaning in English is contained in the voiceless consonants which are high-pitched and soft. They are s, sh, t, p, k, f, ch and th. A child with a mild loss in both ears will need some amplification in each ear to hear clearly at school, in groups, or at a distance.

Moderate Loss

Children with a moderate hearing loss can clearly hear speech only when the speaker is very close – less than one metre away. They need hearing aids to hear the softest sounds and to acquire understandable speech.

Severe Loss

Children with a severe hearing loss do not perceive speech, no matter how close they are to the speaker. They will not learn to talk intelligibly without hearing aids and special help. Severely-impaired children who receive hearing aids early have a far better chance of acquiring speech than children who remain unaided longer.

Profound Loss

Children with a profound hearing loss receive even less auditory information. The younger children are when fitted with hearing aids and or cochlear implants, the greater the likelihood they will eventually speak. Having suitable hearing aids and/ or cochlear implants at all times is a significant factor in determining whether the child will learn to speak. Children with a profound loss often depend greatly on their vision to perceive speech.

Treatment

Fortunately the child with a conductive hearing impairment will always be able to hear, either through ear surgery or by the use of properly fitted hearing aids. There is no known medical or surgical treatment (in humans) that will restore hearing in sensori-neural hearing impairment. Treatment consists of rehabilitation through the use of hearing aids and/ or cochlear implantation and special training.

Hearing Impairment in One Ear

A hearing impairment that is confined to one ear deprives a person of the ability to understand speech in noisy situations and distinguish the direction of sound. Sometimes speech and language delays may develop. Once the child is of school age, special considerations may be needed, i.e. preferential seating in the front of the class with the bad ear to the wall.

Untreated unilateral hearing loss for more than 3 months significantly impacts school performance. Centre for Disease Control (CDC) data from 2007 suggests poor language acquisition in 50% of children, with up to 35% of unilateral hearing loss children repeating school grades. There is a doubling in risk of behavioural problems at school in single sided deaf children. The CDC recommends intervention in children with fluid in both ears for more than 3 months and fluid in one ear for more than 6 months (<http://www.cdc.gov/ncbddd/ehdi/unilateralhi.htm>).

Hearing Aid Evaluation

Evaluation of the hearing in a young child may require several visits with the audiologist. It is important to arrive at an accurate measurement of both the type and degree of impairment in order to select the proper aid. An aid that is too powerful for a young child may irritate his ears and cause him to reject it. On the other hand, if the aid is not strong enough, a child may receive little or no benefit from it and object to wearing it.

Auditory (Listening) Training

Hearing aids are not like glasses. When wearing hearing aids there is always some distortion of sound, particularly when the impairment is sensorineural (in the nerve). Because sound is not perfectly clear with hearing aids, young children need to have special listening training to understand speech well. Most school systems have programs for helping parents teach their child to listen.

The Cochlear Implant (Bionic Ear)

Some children cannot hear speech even with the most powerful hearing aids. The cochlear implant, or bionic ear, now allows the totally deaf person to hear sound.

The cochlear implant is an electronic instrument. Part of the device is implanted in the temporal (ear) bone and part is worn like a pocket-type hearing aid on the body. For more information on the cochlear implant visit: www.northsideaudiology.com.au



(Adapted with permission from the Patient Discussion Booklet Series of the University of Utah Otolaryngology.)