Can you hear me now?
Understanding hearing loss
Li-Rong Lilly Cheng, PhD

As the population of older adults rises, so does the incidence of acquired hearing loss. More than half of people over age 60 are hard of hearing or deaf. Understanding the classification, causes, and management of hearing loss helps speech-language pathologists (SLPs) provide the best possible therapy for patients with this problem.

Classifying hearing loss
According to the World Health Organization (WHO), impairment is defined as an abnormality of the ear structure or auditory system function. Disability is the functional consequence of impairment—an inability to hear certain sounds or to speak clearly. Further, handicap is the social consequence of impairment, which can include isolation, job loss, or making career changes as a result of communication difficulties. Central Auditory Processing Disorder describes the difficulty in listening and processing sounds that are heard.

The WHO is in the process of revising their classifications in view of a person’s circumstances, along the dimensions of body function, structure and activity, and social participation.

Respect individual variations
In 1997, the American Speech-Language-Hearing Association (ASHA) worked with the Council on Education of the Deaf in the development of a position statement entitled Hearing Loss: Terminology and Classification. The key points of that paper remain true in today’s clinical practice:

• People who are deaf or hard of hearing constitute a heterogeneous population.
• The relationship between a person’s hearing level and his
or her ability to develop a language in one or more communication modalities varies.

• A variety of factors affect the communication function of those with hearing loss, including the presence of other disabilities related to vision, fine and gross motor functioning, and/or cognitive functioning.

• Factors such as the age of the person when the hearing loss occurred, when the hearing loss was identified, the type of intervention and educational services available, and when those services were initiated influence communication choices.

• Family, cultural values, and community support of individuals with hearing loss can have a strong impact on the individual. This support includes access to language, communication approaches, use of remaining hearing capabilities, and spoken or signed languages.

• People with hearing loss often interact differently depending on their occupation, education, community, and social environment. The presence and access to interpreters, appropriate technology, and communication partners influences communication.

Differentiating hearing loss

The two types of hearing loss are conductive and sensorineural.

Conductive hearing loss is caused by interference with the transmission of sounds from the outer ear to the inner ear. Possible sources of the interference include ear infections, middle ear infections (otitis media), fluid in the middle ear, excess cerumen (wax), otosclerosis, head injury causing damage to the ossicles, and a perforated eardrum.

Sensorineural hearing loss is caused by damage to the pathway that sound impulses take from the hair cells in the inner ear to the auditory nerve and the brain. The possible causes for sensorineural hearing loss include presbycusis (gradual hearing loss with increasing age), acoustic trauma (injury caused by loud noise, including a noisy work environment), viral or bacterial infections, Ménière’s disease, and ototoxic drugs. For instance, at high doses, aspirin may cause tinnitus, and the antimalarial drug quinine can also cause tinnitus or acoustic neuroma (benign tumor). SLPs should ask patients with hearing loss about their medication history. Some people suffer a combination of conductive and sensorineural hearing loss.

Matching treatment to cause

Otolaryngologists and audiologists conduct hearing tests to establish a diagnosis. These tests include pure tone audiometry, otoacoustic emissions, auditory brain stem response, and magnetic resonance imaging.

Treatment of hearing loss depends on the cause. For example, antibiotics for bacterial infections, removal of excess cerumen, repair of damaged eardrums, and surgery for otosclerosis and acoustic neuroma.

Hearing aids are generally helpful for presbycusis. Audiologists and hearing aid dispensers are trained to determine the kind of hearing aid most suitable for the particular type of disorder. According to ASHA, about 95% of individuals with hearing loss could be successfully treated with hearing aids, but only 23% currently use them—hearing loss is the single most preventable disability that goes untreated.

A right, not an option

Communication is a human right. Hearing loss can often pose challenges, especially for those over age 60, but having hearing loss shouldn’t deter people from participating fully in society and enjoying a high quality of life.

Tips for those with hearing loss

You can share the following tips with your patients to help them better cope with their hearing loss:

• Prevent hearing loss. Avoid exposure to loud noises; for instance, wear earplugs in a noisy work environment such as an airport or a factory.

• Ask audiologists for advice about regular hearing tests and hearing aids.

• If you wear a hearing aid, keep it in excellent condition with fully efficient batteries. Return for a follow-up appointment after the hearing aid is given to you.

• Learn to read lips.

• Speak more clearly and slowly; use visual cues to help communicate more effectively.

• Continue to socialize—don’t become isolated from other people.

Keep in mind that some may view the term “impairment” as negative. It’s generally acceptable to use the term “hard of hearing.”

RESOURCES


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