

Glossary

Acoustic Immittance – Term used for testing the functional integrity of the middle ear mechanism, including the eardrum and ossicles. Includes tympanometry and acoustic reflex testing. These tests have become routine as they are sensitive to middle ear disorders even in persons with little or no hearing. (pg. 35)

Acoustic reflex testing – Consists of subjecting the ear to a loud sound and determining if it causes the stapedius muscle to tighten the stapes. Acoustic reflexes are mainly useful as a clinical tool to further assess the status of the middle ear mechanism. Acoustic reflexes can also be a sign of brainstem dysfunction. (pg. 35)

Air Conduction (AC) – The process by which sound is sent (conducted) to the inner ear through the external ear canal and middle ear. Air-conduction testing is performed by sending sounds to the ear through an earphone or loudspeaker. (pg. 37)

American Sign Language (ASL) – A language used by people who cannot hear (see Deaf, deaf and Hard of Hearing). ASL uses hand shapes, positions, movements, facial expressions, and body movements to convey meaning. ASL uses an alphabet (finger spelling), sign representing ideas, and gestures. ASL is an independent language that has its own grammar and syntax.

Some studies focus on the age of ASL acquisition. Age is a critical issue for people who acquire ASL, whether it is a first or second language. For a person to become fully competent in any language, exposure must begin as early as possible, preferably before school age. Other studies compare the skills of native signers and non-native signers to determine differences in language processing ability. Native signers of ASL consistently display more accomplished sign language ability than non-native signers, again emphasizing the importance of early exposure and acquisition. Other studies focus on different ASL processing skills. Users of ASL have shown ability to process visual mental images differently than hearing users of English. Though English speakers possess the skills needed to process visual imagery, ASL users demonstrate faster processing ability – suggesting that sign language enhances certain processing functions of the human brain. (pgs. 45, 47, 91)

Americans with Disabilities Act (ADA) – Signed into law on July 26, 1990, the Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability in employment, programs and services provided by state and local governments, goods and services provided by private companies, and in commercial facilities. The website www.ada.gov provides valuable information about the ADA for people with disabilities, employers, local businesses, and government agencies.

Amplification – Term used to describe devices that can be used to amplify, or make louder, a child's hearing. Examples of amplification are hearing aids and FM systems. (pgs. 34-35, 41-42, 59-62)

Assistive device – Any device other than a hearing aid which helps those with hearing loss. (pgs. 69-70, 71-79, 86)

Audiogram – An audiogram is a means of recording the results of a hearing test. It will include a table and a graph for each ear showing how well someone can hear sounds at various frequencies. It may also record results of other tests that indicate how well various parts of you're a person's ear (outer ear, middle ear and inner ear) are working. (pgs. 37-38, 40, 47)

Audiologist – A hearing specialist trained to test hearing. An audiologist also recommends and fits devices to aid hearing. Minimum academic degree is a Master's degree. Many audiologists have a Doctor of Audiology (AuD) degree. State licensure is required to practice audiology in many states. (pgs. 34, 37, 39)

Audiometry – The term used to describe formal measurement of hearing. The measurement is usually performed using an "audiometer" by an "audiologist". In audiometry, hearing is measured at frequencies varying from low pitches (250 Hz) to high pitches (8000 Hz). (pgs. 35-36)

Auditory Evoked Potentials (ABR, AABR, BAER, BER) – This test measures how well a baby's hearing nerve responds to sounds. To perform the test, special sensors are placed on the baby's forehead and behind each ear. A soft rubber earphone is placed in the baby's ear and sends a series of soft sounds into the sleeping baby's ear. The sensors measure the response of the baby's hearing nerve. The responses are recorded and stored in a computer. (pg. 35)

Auditory Neuropathy Spectrum Disorder (ANSO) – Also known as auditory desynchronization, auditory neuropathy is a hearing disorder in which sound enters the inner ear normally but the transmission of signals from the inner ear to the brain is impaired. It can affect people of all ages, from infancy through adulthood. The number of people affected by auditory neuropathy is not known, but the condition affects a relatively small percentage of people who have a hearing loss. People with auditory neuropathy may have normal hearing, or hearing loss ranging from mild to severe; they always have poor speech-perception abilities, meaning they have trouble understanding speech clearly. Often, speech perception is worse than would be predicted by the degree of hearing loss. For example, a person with auditory neuropathy may be able to hear sounds, but would still have difficulty recognizing spoken words. Sounds may fade in and out for these individuals and seem out of sync. (pg. 31)

Auditory Training – Listening to environmental sounds, music and speech to practice recognizing and understanding what has been heard. (pgs. 45-46)

Aural (re)habilitation – Specialized training for people with hearing loss to help them learn spoken communication skills through speech reading and auditory training.

Bilateral Hearing Loss – A hearing loss in both ears. (pgs. 31-32)

Bone Conduction – The process by which sound is sent (mechanical vibrations) through the bones of the skull to the inner ear. Bone conduction testing is completed using a bone oscillator (vibrator) that is placed on the mastoid bone behind the ear or on the forehead. (pg. 61)

Bone-Anchored Hearing Aids (Baha) – Bone-anchored hearing devices/systems transmit sound to the cochlea through direct bone conduction. The system is used for people with conductive and mixed loss hearing loss. The hearing loss may be due to chronic infection in the ear, people with the absence of or a very narrow ear canal as a result of a congenital ear malformation, infection, or surgery. It may also be used for people with a profound unilateral hearing loss. The system can be used with a headband-like strap or surgically implanted. (pg. 68)

Captioning – A text display of spoken words, presented on a television, telephone or a movie screen that allows a deaf or hard-of-hearing viewer to follow the dialogue or the action of a program simultaneously. (pgs. 76-77)

CHARGE Syndrome - CHARGE syndrome (formerly "CHARGE association"), is a syndrome caused by a genetic disorder and can cause hearing loss and other abnormalities. (pg. 33)

Connexin 26 - Connexin 26 is a known genetic cause of hearing loss. (pg. 33)

Child and Family Connections (CFC) - CFCs are the regional intake agencies for children and families to enter the Illinois Early Intervention System. (pgs. 95-98)

Cochlea – Also called the “inner ear”. A snail-shaped structure that contains the sensory organ of hearing and changes sound vibrations to nerve impulses. The impulses are carried to the brain along the eighth nerve, or auditory nerve. (pgs. 30-31, 34)

Cochlear Implant – A cochlear implant is an electronic device, which bypasses the damaged hair cells and stimulates the hearing nerve directly. The implant provides useful hearing and improved communication abilities to the implant user. (pgs. 31-32, 63-67, 86)

Conductive Hearing Loss – Hearing loss caused by a problem in the outer or middle ear, resulting in the inability of sound to be conducted to the inner ear. (pg. 31)

Congenital Hearing Loss – Hearing loss that is present from birth. It may or may not be inherited. (pg. 68)

Cued Speech – Cued Speech is not a language, but it supplements any language with several special hand shapes and movements that are designed to allow a hard of hearing individual to differentiate between sounds that look alike when seen on the lips. (pgs. 46-47)

Cytomegalovirus (CMV) - Cytomegalovirus can cause congenital infection resulting in hearing loss and other abnormalities. CMV is one of the leading nongenetic causes of hearing loss in children in the United States. (pg. 33)

Decibels (dB) – When testing hearing, dB is used to indicate the loudness of a sound. The larger the number, the louder the sound. A 15 dB sound is very soft, and a 100 dB sound is very loud. (pgs. 37-38, 41)

deaf – In this uncapitalized form, the word deaf simply means unable to hear. It says nothing about the individual, the individual's language or culture. Technically, Deaf people, (note Deaf, with a capital) some hard of hearing people, and all late-deafened people are deaf. Some hard of hearing people, who might be completely unable to hear may still prefer to be called "hard of hearing" ... it's a personal choice. Many Deaf people may prefer to be called Deaf instead of deaf ... again, it's a personal choice. (pg. 93)

Deaf – A term used to describe persons who have a hearing loss greater than 90 dB HL. It also may be used to refer to those who consider themselves part of the Deaf community or culture and choose to communicate using American Sign Language instead of spoken communication. (pg. 93)

Deaf Culture – You may hear "Deaf Culture" some time during your lifetime. Deaf Culture is when the community shares a common language and pride in American Sign Language. They share survival techniques in hearing population, norms of behavior, attitudes, humors, artistic, and experiences. They seek each other for social interaction and emotional support. (pgs. 91-92)

Developmental Therapist/ Hearing (DTH) - An early intervention credentialed Developmental Therapist/Hearing (DTH) is an educator with a degree in Special Education/Deaf and Hard of Hearing and receives authorizations under the service types Aural Rehabilitation and Developmental Therapy. (pg. 97)

Diagnostic Audiologic Evaluation – A thorough hearing test conducted by an audiologist (hearing specialist). An in-depth test is usually used to determine a baby's hearing status. This test will confirm whether or not hearing problems exist, and if so, to what degree. (pgs. 34-36)

Digital – Digital sound processing means that the sound is registered mathematically. Digital sound is encoded as a series of numbers (0 and 1), which reflect its pitch and volume at a given instant. The processing is very precise and can be manipulated electronically. (pg. 61)

Dynamic Range – The difference between the softest sounds one can hear and the loudest sound tolerated.

ENT – Ear Nose & Throat - A physician who specializes in disorders of the ear, nose or throat. Also See Otolaryngologist. (pgs. 34, 66)

Ear Canal – The passageway from the outer ear to the eardrum. (pg. 30)

Eardrum – Also called the tympanic membrane. The eardrum separates the outer ear from the middle ear and is important in conducting sound to the middle ear and inner ear. (pg. 30)

Ear Infection – The presence and growth of bacteria or viruses in the ear. (pg. 31)

Earmold – A custom-made mold, used with a behind-the-ear hearing aid, which delivers amplified sounds into the ear. Earmolds are sometimes also used for cochlear implant processors in order to keep the piece on the ear. (pg. 60-61)

Earwax – An oily substance that lubricates the ear. Everyone produces earwax and the production of earwax regulates naturally. Earwax can harden in the ear canal and thereby block it. It should be removed only by an otologist. Also called cerumen. (pg. 31)

Early Intervention (EI) – Early intervention services help young children and their families learn to communicate and adjust to living with hearing loss. Services may include assistance in developing communication with your child, parent and sibling support groups, and instruction in different methods of communication. (pgs. 67, 95-98, 106)

Evoked Otoacoustic Emissions (OAE, EOAE, TEOAE, DPOAE) – This is a test that measures how well a child’s cochlea, or inner ear works. A soft rubber ear piece is placed in the baby’s outer ear and makes a soft clicking sound. Healthy ears will “echo” the click sound back to a microphone inside the ear piece that is in the baby’s ear. (pgs. 29, 34)

Feedback – In hearing aids, feedback is ‘whistling’ or ‘howling’, which is created when the amplified sound from the hearing aid escapes from the ear canal through ear mold vents or slit leaks and is picked up by the microphone of the same hearing aid. (pg. 60)

FM system – An FM system is a system which can be added to a hearing aid, when the hearing-impaired person has to listen in difficult hearing situations. It consists of a microphone, which is placed near the speaker(s), amplifier and receiver, that is also attached to the hearing aid. (pgs. 47, 59, 61, 72-73, 78-79)

Frequency – The unit of measurement related to the pitch of a sound. Frequency is expressed in Hz (Hertz) or cps (cycles per second). The more cycles per second, the higher the pitch. (pg. 37)

Genetics - A genetic disorder is a disease that is caused by an abnormality in an individual's DNA and is present before birth. Most genetic disorders are quite rare and affect one person in every several thousands or millions. (pg. 33)

Genetic counseling- Specially-trained professionals help people learn about genetic conditions, find out their chances of being affected by or having a child or other family member with a genetic condition, and make informed decisions about testing and treatment. (pgs. 26, 85-87)

Hard of Hearing – Hard of hearing refers to someone who doesn’t hear well. This may be because they were born with a hearing loss or they may have lost some or all of their hearing later in life. Many hard of hearing people don’t know that they have a hearing loss. Some sim-

ply deny it, even though they may know that their hearing is diminished. Some people who are completely deaf may consider themselves hard of hearing. Nearly 10% of all people have some level of hearing loss. Over your lifetime, there is a much higher probability you will lose some of your hearing. While the concept of hearing loss is familiar in elderly people, people of any age: babies, children, teenagers, adults and the elderly, can be hard of hearing. (pgs. 3, 9, 32)

Hearing Aid – A wearable instrument intended to aid a person with impaired hearing, usually consisting of a microphone, amplifier and earphone, powered by a low voltage battery. Hearing aids can be worn behind the ear, in the ear and sometimes on the body. Hearing aids do not restore normal hearing but can improve the wearer’s ability to hear. (pgs. 59-62, 65, 68, 71, 86)

Hearing Impaired – A technically accurate description of someone who is hard of hearing or who has no hearing. However, many Deaf, hard of hearing and late deafened people prefer not to be called impaired. They don’t want to be primarily defined by their lack of (or poor) hearing. While it’s true that their hearing is not perfect, that shouldn’t make them impaired as people. Most would prefer to be called Deaf, hard of hearing or deaf when the need arises to refer to their hearing status, but not as a primary way to identify them as people (where their hearing status is not significant).

Hearing Loss – Hearing loss is reduced ability to perceive sound relative to people with normal hearing. Hearing loss does not mean a child is deaf. There are varying degrees of hearing loss, ranging from mild to severe-profound (Deaf). There are also different types of hearing loss. Conductive hearing loss, which is caused by a problem of the outer or middle ear, and sensorineural hearing loss, which is a result of a malfunction of the sensory cells and the nerve fibers in the inner ear. A diagnostic audiologic evaluation is needed to confirm if a child has a hearing loss, and to determine what degree of hearing loss a child has. It is important to diagnose a hearing loss as early as possible so that early intervention services can begin before 6 months of age. (pgs. 31-33)

Hearing Screening – A hearing screening determines if an infant’s hearing is normal at the time of testing, or if more testing is necessary. (See Also Pass; Refer) A screening test is not the same as a diagnostic evaluation, which defines an infant’s hearing more thoroughly. If there are any problems on a hearing screening, the infant’s hearing will usually be re-screened. If necessary, after the second screening test, an infant may be referred for a diagnostic audiologic evaluation. (pgs. 5, 84)

Hearing Threshold Level (HTL) – The faintest intensity level (in dB hearing level) that a person can hear a sound of a particular test frequency. A completely normal HTL is 0 dB. Also known as HL. (pgs. 41-42)

Hertz (Hz) – When testing hearing, Hz is used to indicate the frequency of a sound, or the pitch. The lower the number, the lower the pitch. The higher the number, the higher the pitch. A 250 Hz sound is a very low pitch, and an 8000 Hz sound is a very high pitch. (pgs. 37, 42)

Individualized Education Program (IEP) – Although not directly related to hearing loss, IEPs are of interest because they are used to define the specific educational needs of individual children. For children with disabilities, the IEP is required by law. An IEP team including professionals from the school system (in cooperation with the child’s parents) writes the IEP for each child. (pgs. 83, 102-103, 108-109, 111-121, 124)

Individualized Family Service Plan (IFSP) - The Individualized Family Service Plan (IFSP) is both a process and a document intended to assist families and professionals in a community in their combined efforts to meet the developmental needs of a young child from birth to age three with special needs. Once a child turns 3, an Individualized Education Program (IEP) is put into place. (pgs. 96-98)

Individuals with Disabilities Education Act (IDEA) – IDEA is a US federal law that requires certain educational standards and accommodations for children with disabilities, including children with hearing loss. (pgs. 96, 107-108, 111, 118-119)

Infection – Both bacterial and viral infections may result in hearing loss. The most common infection causing hearing loss is middle ear infection, Otitis Media. Bacterial infections of the brain such as meningitis may affect the cochlear labyrinth, resulting in severe sensorineural hearing loss. Viral infections such as measles and mumps may result in a sensorineural hearing loss. (pg. 31)

Labyrinthitis – Labyrinthitis is an inflammation of the inner structure of the ear, called the labyrinth. It is caused by a bacterial or viral infection. Patients experience hearing problems, dizziness, and loss of balance.

Language – Language is communication through a system of rules that include: what words mean, how to create new words, how to combine words together and what word combinations are best for certain situations. Language can be a system of arbitrary signals, such as voice sounds, gestures, or written symbols. A person can have difficulty understanding a language system resulting in a receptive language problem or a person may understand a language but is unable to effectively use the rules to share thoughts, ideas and feelings resulting in an expressive language problem. (pg. 44)

Large Vestibular Aqueduct (LVA) - LVA also known as enlarged vestibular aqueduct syndrome (LVAAS), is caused by enlargement of the vestibular aqueduct in the inner ear. It is one of the most common inner ear deformities which results in hearing loss during childhood. Age of diagnosis ranges from infancy to adulthood, and symptoms include fluctuating and sometimes progressive sensorineural hearing loss and disequilibrium.

Listening and Spoken Language Specialist (LSLS) – An LSLS may work directly with a child and/or their family to help develop the child’s hearing and listening potential to communicate through spoken language. (pg. 46)

Literacy – the ability to read and write. (pg. 52-53)

Nerve deafness – A lay term used to describe sensorineural hearing loss.

Oral Deaf Education - An approach that teaches a child to use his/her remaining hearing through amplification and the use of speechreading/natural gestures/visual cues to aid the child's understanding of language. Primary goals are to develop spoken language and communication skills necessary for school success and integration into the hearing community. (pgs. 113-114)

Ossicles – The chain of three tiny bones in the middle ear (malleus, incus, stapes). (pgs. 30-31)

Otitis Externa – An inflammation of the outer part of the ear extending to the auditory canal.

Otitis Media – An inflammation of the middle ear caused by infection. (pg. 31)

Otolaryngologist (Also See ENT) – A medical doctor who specializes in ear nose & throat disorders. Otolaryngologists can diagnose and treat middle ear infections and medical problems that may affect your child's hearing. Other names include otologist, neurotologist and otorhinolaryngologist. (pgs. 34, 66)

Pass – A “Pass” result on a hearing screening means that a baby has normal hearing on the day of the test. It does not predict how a child will hear in the future. A child's hearing should be re-tested at any time if speech-language milestones are not being met, or if there are parental concerns. (pg. 84)

Pediatrician – A medical doctor who diagnoses and treats most childhood illnesses. He or she can answer questions about your child's general health. (pgs. 83-89)

Pendred Syndrome - Pendred syndrome is a genetic disorder leading to congenital bilateral sensorineural hearing loss with occasional hypothyroidism (decreased thyroid gland function). (pg. 32)

Pressure-Equalizing (PE) Tube – A tube that is inserted in the eardrum to equalize the pressure between the middle ear and the ear canal and to permit drainage. Also called a tympanostomy tube.

Refer – A “Refer” result means that further testing is necessary to evaluate an infant's hearing. This could mean that a hearing problem may exist, but further testing is needed to confirm. The most common reasons for a “refer” result on a hearing screening are birthing debris in the ear canal, middle ear fluid or infection, or a permanent hearing loss (3 in 1000 births). (pg. 84)

Residual Hearing – The amount of measurable, usable hearing.

Sedation- medications used to induce sleep, most commonly through oral intake or intravenously (IV).

Sensorineural Loss – A hearing loss caused by damage to the inner ear (cochlea) and/or the hearing nerve. (pgs. 31-33, 173)

Speech – Refers to the act or manner in which a person produces a sound. (pgs. 32, 38-39, 41, 44, 46, 59, 64, 67, 79, 97, 106, 111, 113-114)

Speech Awareness Threshold (SAT) – The lowest hearing level in dB at which a person can detect the presence of a speech signal. Also known as the speech detection threshold (SDT).

Speech Frequencies – The frequencies within the 500 to 4000 Hz region, which are most important for hearing and understanding of speech.

Speech-Language Pathologist (SLP) – A professional who evaluates and provides treatment for speech, language, cognitive-communication, and swallowing problems of children and adults. Speech and language delays are frequently seen in children with hearing impairments. Minimum academic degree is a Master's degree. State licensure is required to practice speech-language pathology in many states. (pg. 113)

Speech Recognition Threshold (SRT) – The lowest hearing level in dB at which 50 percent of two-syllable (spondee) words can be identified correctly. Also known as the ST (speech threshold or spondee threshold).

TTY – TTY is a telephone device, where dialog is achieved by typing words. The words are converted to phone signals and appear or are printed as words on a receiving TTY machine. (pgs. 71-72, 75-76, 86)

Teacher of the Deaf – a.k.a. Deaf Educator or Developmental Therapist/ Hearing (DTH). A teacher with a Bachelor's Degree in Special Education - Deaf and Hard of Hearing. Their studies focus on language acquisition and the unique learning and communication needs of students with hearing loss. A DTH has a background to offer families specialized information and supports related to hearing loss.

Telecoil – A wire coil contained within a hearing aid that picks up magnetic energy available from telephones or other assistive listening devices. (pgs. 71-73)

Tinnitus – Tinnitus (pronounced ti-night'-us or tin'-i-tus), is the medical term for the perception of sound when no external sound is present; it is often referred to as "ringing in the ears." It can also take the form of hissing, roaring, whistling, chirping or clicking. The noise can be intermittent or constant, with single or multiple tones; it can be subtle or it can be described as "roaring." Tinnitus can be present in people of all ages, and is most often a permanent condition.

Tympanogram – The result of the tympanometry test is recorded in a visual output, called a tympanogram.

Tympanometry – a measure of the stiffness of the eardrum and thus evaluate middle ear function. A measure of the mobility of the eardrum that helps evaluate middle ear function. This test can be helpful in detecting fluid in the middle ear, negative middle ear pressure, disruption of the ossicles, tympanic membrane perforation, and otosclerosis.

Unilateral Hearing Loss – A hearing loss in one ear only. (pgs. 17, 32, 68)

Usher Syndrome – Usher Syndrome is a genetic disorder that can result in hearing loss, balance problems, and an eye disorder called retinitis pigmentosa, or RP. There are three types of Usher Syndrome (Types 1, 2, and 3). The type of Usher syndrome is determined by the age at which hearing loss and vision loss begin. Type 1 is associated with profound hearing loss and balance problems at birth. Vision problems occur in early childhood. For children with Type 1 Usher Syndrome, learning Braille prior to vision loss is essential. Type 2 is associated with moderate to severe hearing loss at birth. Vision problems occur in late childhood. Type 3 is associated with normal hearing, balance, and eye function at birth. Hearing loss and vision problems occur in childhood. Usher’s syndrome is a rare disease. (pg. 32)

Vertigo – A spinning sensation, sometimes occurring with nausea and/or vomiting.

Voice Carry Over – An option of the relay service that allows a person (who can speak but not hear), to talk on the phone with someone who can hear. A VCO relay operator, acting between the two communicating parties, will type what the hearing person says so that the other person can read it on their TTY or computer. With VCO, the person who cannot hear does not have to type their message, but can speak it directly. VCO can make a relay call much more convenient for hard of hearing people, since only one side of the conversation has to be typed and that is done by the relay operator. (pg. 75)

Waardenburg syndrome – Waardenburg syndrome is a rare genetic disorder most often characterized by varying degrees of hearing loss. (pg. 32)

Glossary Resources:

<http://www.babyhearing.org/HearingAmplification/Glossary/index.asp>

<http://www.newborn-hearing-screening.org/glossary.htm>

<http://www.geocities.com/Heartland/Prairie/4727/gloss.htm>

<http://www.hearinglossWeb.com/Misc/glossary.htm>

<http://www.hear-it.org/glossary.dsp>

<http://www.babyhearing.org/HearingAmplification/Glossary/index.asp#ASL>

<http://www.disabilityresources.org/ADA.html>

<http://deafness.about.com/cs/signlanguage/a/aslfacts.htm>

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