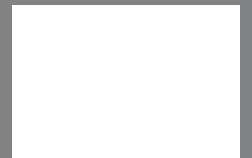


Deafness
2.1.4. Glossary

2.1.



Glossary: The Ear / Hearing

<i>Acoustic feedback</i>	B	Squeal produced by a hearing aid when amplified sound escapes and is reamplified.
<i>Acoustic nerve</i>	B	The auditory nerve .
<i>Acoustic neuroma</i>	B	A benign tumour of the acoustic nerve that grown in the ear canal .
<i>Acoustic otoscope</i>	B	A medical instrument used for examining the ear that reflects sound waves off the eardrum.
<i>Acoustics</i>	H	Pertaining to sound, the sense of hearing or the science of sound. Often used to refer to the quality of the sound environment
<i>Acoustic reflex response</i>	G	Measurement of the change in transmission of sound through the middle ear by activation of the stapedial reflex with presentation of loud sound.
<i>Acoustic trauma</i>	B	Loss of hearing caused by exposure to loud noise over a long period of time, an explosion, blow to the head or another accident.
<i>Acquired hearing loss</i>	H	Hearing loss, which is not present at birth. Sometimes referred to as adventitious loss.
<i>Age Induced Hearing Loss</i>	C*	Common name for presbycusis . Presbycusis is caused by a gradual deterioration of hair cells, which is part of the normal ageing process.
<i>Air Conduction</i>	G	Measurements of hearing made through earphones. Therefore, the entire auditory system is evaluated.
<i>Ambient noise</i>	H	Background noise, which competes with the main speech signal.
<i>American Sign Language</i>	B	A form of sign language with its own grammar, vocabulary and syntax, used primarily by deaf Americans.
<i>Amplification</i>	H	The use of hearing aids and other electronic devices to increase the loudness of a sound so that it may be more easily received and understood.
<i>Amplifier</i>	C*	Electronic circuit elements of the hearing instrument.
<i>Amplitude</i>	C*	The magnitude of a signal
<i>Analogue</i>	B	Type of hearing-aid circuitry which converts sound into electronic signals.
<i>Analysis of variance</i>	A	A statistical test of the effects of several variables and their interactions.
<i>Assistive alerting device</i>	B	A device which alerts a hearing-impaired individual to sound through a louder sound, such as a bell, whistle or horn.
<i>Assistive communication device</i>	H	Devices and systems which are available to help deaf and hard of hearing people improve communication, adapt to their environment, and function in society more effectively.
<i>Assistive listening</i>	B	Any device which helps a hearing-impaired individual hear; this includes devices which alert, signal, amplify or direct sound or represent sound

<i>device</i>		visually.
<i>Atonal</i>	H	Refers to voice quality that lacks traditional musical tonality or harmonics.
<i>Attack/release times</i>	C*	The speed in which a compression circuit works detecting the beginning and end of a sound.
<i>Audiogram</i>	B G H*	A graph, made by an audiometer, on which a person's ability to hear different pitches (frequencies) at different volumes (intensities) of sound is recorded. The frequency is plotted on the horizontal axis (250Hz to 8000 Hz). The vertical axis shows the degree of hearing loss in dB. See: How to read an Audiogram.
<i>Audiological Assessment</i>	H*	A hearing test comprised of identifying pure-tone thresholds , impedance testing, speech recognition, and speech discrimination measurements, which shows the type and degree of hearing loss. The test can also assess how well a person is hearing with amplification.
<i>Audiologist</i>	B	A professional trained in the identification, evaluation and nonmedical rehabilitation of hearing loss.
<i>Audiometer</i>	A/B*	An electronic instrument used for testing the acuity of hearing and for measuring the conduction of sound through bone and air.
<i>Auditory brainstem response (ABR)</i>	H	A non-invasive test that measures responses in the brain waves to auditory stimulus. This test can indicate whether or not sound is being detected, even in an infant. This test may also be referred to as BAER, BSEP, and BSER.
<i>Auditory nerve (VIII Nerve)</i>	A/B /E*	The eighth cranial nerve linking the cochlea to higher centres of the brain; it transmits information from the cochlea to the brain. Essentially, it is the transmission line from the sense organs to the central processor of the brain.
<i>Auditory training</i>	H*	The process of training a person's residual hearing in the awareness, identification, and interpretation of sound. Done with the help of speech language therapists or audiologists.
<i>Aural habilitation</i>	H	Training designed to help a person with hearing loss to make productive use of residual hearing. Sometimes includes training in speech reading .
<i>Aural rehabilitation</i>	B	Training and rehabilitation to teach a hearing-impaired individual to cope with limited hearing or adjust to a hearing aid.
<i>Auricle</i>	B	The external part of the ear; the pinna .
<i>BAHA</i>	C*	Bone Anchored Hearing Aids – used in the treatment of severe, conductive hearing loss . A titanium bolt is placed in the mastoid bone. As soon as it sits tightly, the bolt is able to conduct sound to the bone and on to the inner ear . A small vibrating hearing aid is then attached to the bolt.
<i>Barotrauma</i>	B	Injury in the ear caused by a sudden change in air pressure.
<i>Basilar membrane</i>	B / E	The membrane in the cochlea , where the hair cells are located. A ribbon like structure upon which rests the organ of Corti. The basilar membrane is less wide but stiffer at its basal end toward the oval window, but is wider and more compliant toward its apical end away from the oval window. Because of these two gradients of size and stiffness, high frequencies are coded at the basal end with low frequencies progressively coded toward the apical end.

<i>Behavioural observation audiometry</i>	H*	Assessment of a young child's behavioural response to sound by observation.
<i>Behind-the-Ear (BTE)</i>		Hearing device. Microphone, amplifier and receiver are housed in a small case that sits behind the ear.
<i>Bel</i>	A	The ratio of two measures of sound power expressed as a logarithm to the base 10. A decibel (dB) is one-tenth of a bel. Being a ratio, the bel has no dimensions, and in air the sound-pressure level in decibels is equal to $20 \log_{10}(p/p_0)$, where p is the sound-pressure level of a given sound and p_0 is an arbitrary sound-pressure level usually taken to be 0.0002 dynes/cm ² or 1 dyne/cm ² .
<i>Bilateral</i>	B	Two-sided; referring to both ears.
<i>Bilateral hearing loss</i>	H	A mild to profound hearing loss in both ears.
<i>Bilateral presentation</i>	A	The presentation of stimuli in both sides of a subject's visual field simultaneously.
<i>Bilingual / Bicultural</i>	H	Being fluent in two languages and membership in two cultures. Such as hearing (spoken language) and the Deaf culture (sign language).
<i>Binaural hearing aids</i>	H	Hearing aids worn on both ears
<i>Body-worn hearing aid</i>	C*	Cigarette packet-sized hearing device worn in a pocket, with a cord attaching it to the earpiece. Provides increased gain (power) and less feedback for individuals with a severe hearing loss. Primarily used only in special situations where ear-level hearing aids cannot be used.
<i>Bone conduction</i>	G	Measurements of hearing made through a vibrator placed on the mastoid bone behind the ear. Therefore, the cochlea of the inner ear and the VIII nerve are tested.
<i>Brain stem audiometry</i>	B	Computerized test which measures the response of the brain stem to sound.
<i>Cerumen</i>	B	Earwax.
<i>Cholesteatoma</i>	B	An abnormal growth of skin, or cyst, in the middle ear . It occurs as a congenital defect or as a complication of otitis media.
<i>CIC – Completely-in-the-Canal</i>	C*	Hearing aid that is placed deep in the ear canal (1-2mm beyond the ear canal opening).
<i>Cilia</i>	B	Hair cells in the cochlea .
<i>Claudian's Cells</i>	E	Inert supporting cells.
<i>Cochlea</i>	B E*	A spiral-shaped part of the inner ear that is the sensory organ of hearing. It receives sound waves from the middle ear and transmits the information to the auditory nerve . The vibrational patterns that are initiated by vibration of the stapes footplate set up a travelling wave pattern within the cochlea. This wavelike pattern causes a shearing of the cilia of the outer and inner hair cells . This shearing causes hair cell depolarization resulting in all or none neural impulses that the brain interprets as sound.

<i>Cochlear implant</i>	B	A device, which, when implanted into the cochlea , enables people with profound hearing loss to hear certain noises.
<i>Conductive hearing loss</i>	B	Type of hearing loss caused by something impeding the conduction of sound through the outer and/or middle ear .
<i>Confusion method</i>	A	A way of determining the encoding method used by a subject to store information by assessing the degree of confusion induced by similar stimuli.
<i>Congenital hearing loss</i>	H	Hearing loss present at birth or associated with the birth process, or which develops in the first few days of life.
<i>Conservation</i>	A	In the theory of Piaget, the ability of the child to understand that certain physical properties of matter are conserved despite changes in shape or position, marking a significant stage of cognitive development.
<i>Correlation Coefficient (r)</i>	A	A mathematical expression of the strength of a relationship between two variables, ranging from +1 (perfect correlation) through 0 (no relation evident) to -1 (perfect negative relationship).
<i>Cortex</i>	A	The evolutionarily most advanced outermost position of the brain.
<i>Cued speech</i>	B	A technique in which manual signs are used to back up speech reading.
<i>Curette</i>	B	A long, thin instrument with a hook at the end; used by doctors to clean earwax from the outer ear canal .
<i>Deaf</i>	H	Medically and clinically speaking a hearing loss which is so severe that the child is unable to process linguistic information through hearing alone. Socially when used with a capital letter "D," Deaf refers to the cultural heritage and community of deaf individuals, i.e., the Deaf culture or community. In this context, it applies to those whose primary receptive channel of communication is visual.
<i>Deaf community</i>	H	A group of people who share common interests and a common heritage. Their mode of communication is a (national) Sign Language. The Deaf community is comprised of individuals, both deaf and hearing, who respond with varying intensity to particular community goals which derive from Deaf cultural influences.
<i>Deaf culture</i>	H	A view of life manifested by the mores, beliefs, artistic expression, understandings and language (SL) particular to Deaf people. A capital "D" is often used in the word Deaf when it refers to community or cultural aspects of Deafness.
<i>Deaf blindness</i>	H	Educationally significant combined loss of vision and hearing
<i>Decibel (dB)</i>	A/B	A relative measurement of sound intensity or pressure; literally one-tenth of a bel ; an increase of one bel is approximately double the loudness of a sound.
<i>Decoder</i>	H	An electronic device or computer chip that can display closed captions encoded in television programs or videocassettes. Also called a telecaption adapter.
<i>Degree of Hearing Loss</i>	G	0-25dB Normal limits. 26-40dB Mild hearing Loss. 41-55dB Moderate hearing loss. 56-70dB Moderately Severe hearing loss. 71-90dB Severe hearing loss.

>91dB Profound hearing loss.

<i>Deiter's Cells</i>	E	Inert supporting cells of the outer hair cells.
<i>Digital</i>	B	Hearing-aid circuitry in which sound is converted into numerically coded signals like those used in computer microchips.
<i>Digitally programmable</i>	B	A type of hearing aid with digital circuitry that can be programmed like a computer to tailor it to its user's needs.
<i>Dyslexia</i>	A	Language difficulty associated with problems in perceiving and ordering verbal elements.
<i>Ear canal</i>	B E	The opening by which sound enters the ear. The total length of the ear canal in adults is approximately 3400Hz, an important frequency region for understanding speech.
<i>Eardrum</i>	B	Tympanic membrane ; a flat membrane which separates the outer ear canal from the middle ear .
<i>Ear mould</i>	B	A device that fits in the ear to connect a behind-the-ear hearing aid to the ear.
<i>Earmuffs</i>	B	Noise protection devices that cover the ears.
<i>Earplugs</i>	B	Noise protection devices that fit in the ear canal .
<i>Educational interpreter</i>	H	A person who is able to perform conventional interpreting, together with special skills for working in the educational environment.
<i>Electrocochleography</i>	B	A computerised test that provides information about the functioning of the inner ear .
<i>Endolymph</i>	E*	Fluid filling the scala media , one of the three partitions within the cochlea . In contrast to perilymph, endolymph has a high K ⁺ concentration and a low Na ⁺ concentration. The endolymph that is found within the scala media is continuous with the endolymph of the sacculle , communicating through the ductus reunions.
<i>ENT</i>	B	An ear-and-nose specialist; otolaryngologist
<i>Eustachian tube</i>	B E	Tube which connects the ear to the nose-throat cavity. It "opens" with swallowing or coughing to equalise pressure between the middle ear and ambient pressure that is found in the throat.
<i>Exostosis</i>	B	An abnormal growth on the surface of a bone in the ear; also known as surfer's ear.
<i>External ear</i>	A	The pinna and the external auditory canal terminating in the ear drum .
<i>Facial Nerve</i> (VII cranial nerve)	E	The facial nerve is the VII cranial nerve, and travels in parallel with the VIII cranial nerve through the internal acoustic canal. The facial nerve innervates the face and provides both sensory and motor function to the face.
<i>Factor analysis</i>	A	A method determining the factors underlying the correlations between a large number of variables; somewhat controversial but widely used in educational research.

<i>Fingerspelling</i>	B	A form of manual communication in which words are spelled out with the hands by means of symbols that represent the letters of the alphabet.
<i>FM system</i>	H	An assistive listening device worn by the speaker to amplify his/her voice and transmit it directly to the listener's ears via an electronic receiver and special earphones or the listener's own hearing aids. The device reduces the problem of background noise interference and the problem of distance between speaker and hearing-impaired listener.
<i>Frequency</i>	A/B*	The number of vibrations a sound makes per second, conventionally measured in cycles per second – hertz (Hz) or kilohertz (kHz) - ; sounds with higher frequencies have higher pitches .
<i>Frequency resolution</i>	C*	The ability to simultaneously distinguish between several sounds of different frequencies.
<i>Functional gain test</i>	B	Pure-tone test used to determine hearing abilities when a hearing aid is worn.
<i>Fundamental frequency</i>	A	The pure tone in a complex sound that has the same period as the periodic quantity which is that of sound.
<i>Gain</i>	H*	The range that describes how well the amplification is performing mg. For example, a person with unaided hearing at 70 dB who, when amplified, hears at 30dB, is experiencing a gain of 40 dB.
<i>Hard-of-Hearing</i>	H	A hearing loss, whether permanent or fluctuating, which adversely affects and individual's ability to detect and decipher some sounds. 2) The term preferred over "hearing impaired" by the Deaf and hard-of-hearing community to refer to individuals who have hearing loss, but also have and use residual hearing.
<i>Harmonics</i>	A	The integral multiples of the fundamental frequency of a complex tone. For example, if the fundamental frequency of a sound is 256c/s, the first harmonic is 2x256(512)c/s and so on.
<i>Hearing screening</i>	H	Audiometric testing of the ability to hear selected frequencies at intensities above normal hearing. The purpose is to identify individuals with hearing loss, with minimal time expenditure, and to refer them for further testing.
<i>Hearing aid</i>	H	An electronic device that conducts and amplifies sound to the ear.
<i>Hearing impaired</i>	H	Applies to those who are acoustically disabled / auditorially deficient for whom the primary receptive channel of communication is, even with deficits, hearing.
<i>Hensen's Cells</i>	E	Inert supporting cells.
<i>Hertz</i>	B	International unit for frequency ; equal to one cycle per second.
<i>Huggies</i>	H	The brand name of a plastic-ringed device designed to "hug" the hearing aid to the ear. Popular for infants and toddlers whose ears may be too small to hold the hearing aid snugly in place.
<i>Hybrid</i>	B	A type of hearing-aid circuitry in which digital computer chips control the operation of analogue components.
<i>Hydraulic Advantage</i>	E	See Stapes .
<u><i>Incus</i></u>	B E	The anvil; the central of the three small bones in the middle ear . The incus is attached to the malleus , and so vibrates as the malleus vibrates. The long

process of the incus is also attached to the head of the [stapes](#). Because the long process of the incus is slightly shorter than the long process (manubrium) of the malleus, incoming sound is given a slight (2.5dB) boost in energy. This is referred to as the lever advantage.

<i>Individualised education plan (IEP)</i>	H*	A team-developed, written program, which identifies therapeutic and educational goals and objectives, needed to appropriately address the educational needs of a school-aged student with a disability. An IEP for a child with hearing loss should take into account such factors as 1) communication needs and the child's and family's preferred mode of communication 2) linguistic needs; 3) severity of hearing loss; 4) academic progress; 5) social, emotional needs, including opportunities for peer interactions and communication; and 6) appropriate accommodations to facilitate learning.
<i>Infrared system</i>	B	An assistive listening system for a room in which infrared light rays transmit sound to receivers worn by hearing-impaired individuals.
<i>Inner ear</i>	A/B*	Consists primarily of the cochlea and its associated structures (labyrinth). It also includes the semi-circular canals that are concerned with balance.
<i>Inner Hair Cell</i>	E	There is one row of approximately 3500 inner hair cells. These cells receive about 95% of the innervations from the nerve fibers from the acoustic portion of the VIII nerve. These cells have primary responsibility for producing our sensation of hearing. When lost or damaged, a severe to profound hearing loss usually occurs.
<i>Inner Sulcus</i>	E	Inert supporting cells to the inner hair cells .
<i>Intensity</i>	A	A measure of the amount of sound energy that flows through a unit area in a unit interval of time. It is usually measured by recording the pressure of the sound which is related to intensity in the following way: $I = \frac{p^2}{\rho v}$ where I is the intensity of the sound, p is the pressure of the sound, ρ is the density of the medium, and v is the speed of sound.
<i>Interpreter</i>	H	A person who facilitates communication between hearing and deaf or hard of hearing persons through interpretation into a signed language, or transliteration of a language into a visual and/or phonemic code by an oral interpreter, a signed language interpreter or cued speech interpreter.
<i>Intonation</i>	H	The aspect of speech made up of changes in stress and pitch in the voice.
<i>In-the-ear hearing aid (ITE)</i>	C	The microphone, amplifier and receiver are mounted in a custom-fitted case that fits in the concha of the auricle .
<i>Labyrinth</i>	B	The part of the inner ear , consisting of fluid-filled semicircular canals, which controls balance.
<i>Labyrinthectomy</i>	B	Surgery in which the inner ear is removed.
<i>Lever advantage</i>	E	See Incus .
<i>Loop system</i>	B	An assistive device for a room, in which a microphone and amplifier are attached to an electrical wire which circles the room and creates a magnetic field; hearing-impaired individuals wearing hearing aids with telecoil circuitry can pick up the magnetised sound.
<i>Loudness</i>	A	The psychological response made by an observer to the physical intensity and

which enables sound to be rated on a continuum or louder to softer.

Loudness scaling	C	A procedure to determine at which loudness a certain sound is perceived by an individual.
Mainstreaming	A	An educational philosophy based on the proposition that all handicapped children should be taught together with normal children. Mainstreaming is one point on a continuum of educational options. The term is sometimes used synonymously with "inclusion".
Malleus	B E*	The hammer; the first and most lateral (toward the side of the head) of the three small ear bones (ossicles) in the middle ear . The long process of the malleus is attached to the inner layer of tympanic membrane . When the TM vibrates in response to sound, the malleus vibrates in concert.
Manual communication	B	Any form of communication in which the hands, rather than the spoken word, are used to communicate; i.e. sign language and fingerspelling.
Manual English	B	A form of manual communication in which hand signs are used to represent English words; the grammar and syntax of English are also used.
Manually coded English	B	See Manual English
Masking	A G*	In audiometry, masking refers to the noise that is presented to one ear when testing the other ear. The process whereby the presence of one sound (the masking sound) raises the threshold of audibility for a given sound.
Mastoid (Air Cells)	B E	A portion of the temporal bone ; found behind the ear. Under normal circumstances this honeycombed area cells are filled with air. They can fill with fluid or pus when chronically infected.
Mastoidectomy	B	Surgical removal of all or part of the mastoid process.
Mastoiditis	B	An inflammation or infection of the mastoid bone or its air cells – spaces lined by mucous membrane in the mastoid bone.
Ménière's disease	B	An inner-ear disorder of unknown cause that results in periods of vertigo or dizziness, hearing loss, buzzing or ringing in the ear and nausea.
Middle ear	A	Consists of three small bones (the malleus , the incus , and the stapes) which transmit vibrations from the tympanic membrane (the eardrum) to the oval window in the cochlea .
Mixed hearing loss	B	Hearing loss that is both conductive and sensorial.
Monaural amplification	H	The use of one hearing aid instead of two.
Most comfortable range/level (MCL)	C	The level at which a person prefers to listen to a particular sound for a long period of time.
Multi-disciplinary assessment and evaluation	H	Qualified persons representing two or more disciplines or professions, i.e.; a speech therapist and an audiologist make this assessment and evaluation of the child The child's development is evaluated to determine if there are any delays or conditions that would indicate the need for special services.

<i>Myringoplasty</i>	B	Surgical procedure in which a small incision is made in the eardrum to relieve pressure or allow fluid to drain from the middle ear .
<i>Native language</i>	H	The language of the home, i.e. the native language of children who are deaf with deaf parents is often Sign Language.
<i>Non-linear amplification</i>	C	A hearing aid compression strategy that varies the amount of amplification according to the specific input level.
<i>Non-syndromic hearing loss</i>	D14	Hearing loss with no other organ system abnormalities.
<i>Oral</i>	H	An unspecific term that is sometimes used when referring to individuals with hearing loss and deafness who talk but don't necessarily use sign language. Emphasis is placed on use of residual hearing, lip reading and contextual cues to communicate using spoken language.
<i>Organ of Corti</i>	C E*	The sensory organ of hearing. The outer and inner hair cells of the organ of Corti transform vibrational energy into neural energy, which is then transmitted via the VIII nerve to the brain.
<i>Osseous Spiral Lamina</i>	E	A delicate bony plate that extends from the mid portion of the coiled cochlea , helping to separate scala vestibule from scala tympani .
<i>Ossicles</i>	B	Three small bones in the middle ear that form a bridge connecting the eardrum with the oval window.
<i>Ossicular Chain</i>	A	See middle ear .
<i>Otitis externa</i>	B	An inflammation or infection of the outer ear or outer ear canal ; swimmers ear.
<i>Otitis media</i>	B H*	An inflammation or infection of the middle ear . Children with recurring episodes may experience fluctuating hearing loss and may be at risk for speech language delays. Fluid can be present with or without infection, and may cause temporary hearing loss, which can evolve into permanent loss.
<i>Otitis media with effusion</i>	B	An inflammation or infection of the middle ear , in which fluid is present in the middle ear.
<i>Oto-acoustic emissions (OAE)</i>	G H*	Measurement of sounds in the outer ear that are produced by outer hair cells in the cochlea . An indirect test of peripheral hearing sensitivity. A probe is placed in the ear canal for this measurement of sensorineural deafness.
<i>Otolaryngologist</i>	B	A medical doctor who specialises in disorders of the head and neck, especially those relating to the ear, nose and throat.
<i>Otologist</i>	B	An otolaryngologist who subspecialises in disorders of the ear.
<i>Otorhinolaryngologist</i>	B	Old term for otolaryngologist.
<i>Otosclerosis</i>	B	A congenital condition in which abnormal bone growth forms in the inner ear ; it can cause tinnitus and deafness.
<i>Otoscope</i>	B	An instrument used to examine the external ear canal , eardrum and ossicles , it consists of a light and a magnifying glass.

Ototoxic	B	A substance that has a bad effect on the auditory nerve or inner ear ; a substance that is poisonous to the ear.
Outer ear	B	That portion of the ear that begins with the pinna and includes the ear canal .
Outer hair cells	E	There are three rows of approximately 12000 outer hair cells. Although they are much greater in number than the inner hair cells , they receive only about 5% of the innervations of the nerve fibers from the acoustic portion of the VIII nerve. These cells contain muscle-like filaments that contract upon stimulation and fine tune the response of the basilar membrane to the movement of the travelling wave. Because of their tuned response, healthy outer hair cells will ring following stimulation. This “ringing” provides the sound source for Otoacoustic Emissions.
Output	H	Refers to how much amplification is being put out by a hearing aid.
Oval window	B	Opening in the inner wall of the middle ear through which sound is passed into the inner ear .
Perceptive hearing loss	C	Results from disorders involving sensory cells in the cochlea and/or auditory nerve fibres of the VIII cranial nerves.
Peri-lingual deafness	H	Refers to hearing loss acquired while learning a first language.
Perilymph	E	The same as cerebro spinal fluid (CSF). Fluid in the scala media , one of the three partitions within the cochlea . It has a low potassium -K+- concentration and a high -Na+- concentration.
Permanent threshold shift	B	A change in the hair cells that permanently changes a person’s hearing sensitivity.
Pillars of Corti	E	Supporting cells that bound the tunnel of Corti . The tunnel of Corti runs the entire length of the cochlear partition.
Pinna	B E*	Auricle ; the external part of the ear, composed of cartilage. Its presence on both sides of the head allows us to localize sound from the front vs. back. Our ability to localize from side to side depends on the relative intensity and relative phase of sound reaching each ear and the analysis of the phase/intensity differences within the brainstem.
Pitch	A	The psychological response made by an observer to the physical frequency and which enables sounds to be rated on a continuum of higher or lower.
Post-lingual deafness	H	Refers to hearing loss acquired after learning a first language.
Presbycusis	B	Sensorineural hearing loss, usually gradual, caused by aging.
Pre-lingual deafness	H	Refers to hearing loss, which is congenital or acquired before acquisition of language.
Profound	B	A hearing loss of 90 decibels or more.
Prosthesis	B	A device which replaces a missing part of the body or makes a part of the body work better.
Pure tone	A	A sound in which the sound pressure changes sinusoidally with the time.

<i>Pure-tone audiometry</i>	B	Hearing tests, using an audiometer, which measure a person's ability to hear pure tones .
<i>Pure-tone average (PTA)</i>	G	The average hearing loss for the best two frequencies or the three frequencies of 500Hz, 1000Hz, and 2000 Hz.
<i>Pure-tone threshold</i>	B	The point at which a person is able to hear pure tones from an audiometer.
<i>Real ear measurement (REM)</i>	H	An audiological test that measures the actual output of the hearing aid in the ear canal . This test uses a "probe-microphone" that is placed into the ear canal along with the hearing aid and ear mould fitted in place. It assesses how effectively sound is actually being amplified by the hearing aids in the ear. It is considered a very important measurement because everyone's ear canals are shaped differently and this will effect how a hearing aid functions.
<i>Regression function</i>	A	The mathematical relationship between two variables, expressed as the best-fitting straight line function.
<i>Reissner's membrane</i>	E	Separates the endolymph of the scala media from the perilymph of the scala vestibuli .
<i>Resonant frequency</i>	C*	The frequency at which a body will vibrate when set into free vibration.
<i>Rinne test</i>	B	Tuning-fork test which determines whether hearing loss is sensorineural or conductive.
<i>Round window (niche)</i>	E	The round window is located within the round window niche. The round window is the most basal end of the scala tympani , and allows release of hydraulic pressure of perilymph that is caused by vibration of the stapes within the oval window.
<i>Sacculle</i>	E	See Vestibular Labyrinth
<i>Scala Media</i>	E	One of the three partitions within the cochlea , the scala media is filled with endolymph .
<i>Scala Tympani</i>		One of the three partitions within the cochlea , filled with perilymph. The scala vestibule and the scala tympani are continuous with each other at the most apical end of the cochlear partition called the helicotrema.
<i>Scala Vestibuli</i>	E	One of the three partitions within the cochlea that is filled with perilymph, which attaches via the cochlear aqueduct to the subarachnoid space.
<i>Sensorineural hearing loss</i>	B	The type of hearing loss caused by damage to the inner ear or auditory nerve .
<i>Sensory deprivation</i>	A	The cutting off or reduction of sensory input, in one or more modalities, to the human or animal organism.
<i>Short-term memory (STM)</i>	A	The mechanism presumed to underlie the retention of small amounts of information over short periods. In hearing subjects, STM is auditory in nature.
<i>Significance level</i>	A	The probability that a set of experimental data can be explained as purely random variations. Low probabilities imply high levels of significance.
<i>Sign language</i>	B	A form of manual communication in which gestures and signs, in a specific pattern, are used to communicate.
<i>Ski-slope hearing loss</i>	C*	Hearing for high frequencies is severely impaired, but thresholds remain

normal in the low frequencies.

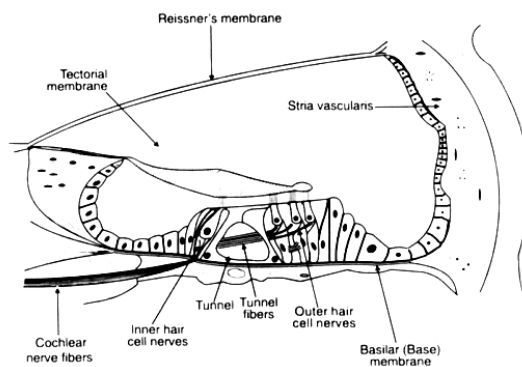
<i>Sound pressure</i>	A	Pressure is defined as the action of a force on something resisting it. In the case of sound waves the force is due to the movement of molecules in the medium of transmission.
<i>Spectrum</i>	C*	A graphic representation of the distribution of frequency components in a given acoustic signal.
<i>Speech banana</i>	G	The “speech banana” is defined as an area on the audiogram that approximately defines where typical speech sounds occur.
<i>Speech-discrimination tests</i>	B	Oral-aural tests which determine what speech sounds a person can discriminate; the listener must repeat words and sounds spoken to him.
<i>Speech-language pathologist</i>	B	An allied health professional who measures and evaluates language and speech production abilities and clinically treats individuals with speech and language disorders.
<i>Speech reading</i>	B	A technique in which a hearing-impaired person watches a speaker’s lips, face and gestures to determine what the person has said.
<i>Speech reception threshold (SRT)</i>	G	The lowest sound intensity which allows repetition of two syllable words. This measure should be approximately the same as the best two frequency or three frequency PTA .
<i>Sperling Paradigm</i>	A	Method for investigating very short-term visual traces using briefly presented two-dimensional displays.
<i>Spiral Ganglia</i>	E	The cell bodies of nerve fibers that innervate the inner and outer hair cells.
<i>Stapedectomy</i>	B	Removal and replacement of the stapes or a portion of the stapes; used to treat otosclerosis.
<i>Stapes</i>	B E	The innermost of the three small bones in the middle ear . The stapes has a footplate and a superstructure. Its footplate is seated in the oval window, which separates the middle ear from perilymph of the inner ear . As the long process of the incus vibrates, so does the footplate of the stapes . Because the vibrating area of the tympanic membrane is larger than the area of the stapes, incoming sound is given a significant boost in energy of over 20dB. This is referred to as the hydraulic advantage.
<i>Stria Vascularis</i>	E	A highly vascularized layer of cells that is thought to secrete endolymph .
<i>Swimmer’s ear</i>	B	Otitis externa; an inflammation or infection of the outer ear .
<i>Syndromic Hearing loss</i>	D13	Associated with other organ system abnormalities.
<i>Tachistoscope</i>	A	Device for presenting subjects with very brief visual stimuli.
<i>Tactile aids</i>	H	A type of assistive communication device that emits a vibration or "tactile" signal to indicate the presence of sound(s). It is worn on the body and triggers the sense of touch or feeling to draw attention to information that cannot be heard by the individual with hearing loss.
<i>Tectorial Membrane</i>	E	A delicate, flexible, gelatinous membrane overlying the sensory receptive inner and outer hair cells.

<i>Telecommunication devices dor the deaf TDD</i>	B	Telecommunications Device for the Deaf; an assistive device with which the deaf can communicate over the telephone; typewritten messages are sent and received over the phone lines.
<i>Telecaptioning</i>	B	A system which allows the deaf and hearing impaired to understand the spoken portion of audiovisual programs; dialogue appears in written form below the picture.
<i>Telecoil</i>	B	A circuitry option that can be added to a hearing aid; the telecoil makes the hearing aid circuitry compatible with external electronic devices like the telephone.
<i>Temporal bone</i>	B	The large bone on either side of the head; includes the mastoid bone.
<i>Temporary threshold shift</i>	B	A temporary change in the hair cells as a response to noise that temporarily changes a person's hearing sensitivity.
<i>Threshold</i>	C*	Threshold is the level at which a stimulus or change in stimulus is just sufficient to produce a sensation or an effect.
<i>Timbre</i>	A	The characteristic quality or distinctiveness which differentiates the perception of sounds with similar acoustic characteristics.
<i>Tinnitus</i>	B	A ringing or buzzing in the ear.
<i>Total communication</i>	B	An approach to communication for the deaf in which the deaf individual is encouraged to use any form of communication available to him, including sign language , speech, hearing aids, assistive listening devices and speech reading.
<i>Tunnel of Corti</i>	E	A space filled with endolymph that is bordered by the pillars of Corti and basilar membrane .
<i>Tympanic membrane</i>	B E	The eardrum; a flat membrane that separates the outer ear canal from the middle ear and carries sound vibrations to the bones of the middle ear. The tympanic membrane actually has three layers, with the outer layer continuous with the skin of the outer ear canal. The upper portion of the TM is called pars flaccida, while the lower portion is called the pars tensa. The central portion of the pars tensa provides the active vibrating area in response to sound. The TM is a continually growing structure, which allows it to close if it has a hole in it and to extrude a ventilation tube.
<i>Tympanogram</i>	H	A pressure or "impedance" test that tells how the ear canal, eardrum, eustachian tube, and middle ear bones are working. It is not a hearing test.
<i>Tympanometer</i>	B	Machine which tests the function of the eardrum or middle ear .
<i>Tymponometry</i>	G	Measurement of the ability of the eardrum to move when positive and negative pressure are present in the ear canal. Type A: Normal. Type B: Flat tympanogram, usually indicating fluid in the middle ear . Type C: Peak at negative pressure, indicating Eustachian tube dysfunction.
<i>Tympanoplasty</i>	B	Surgical operation on the eardrum or ossicles to restore or improve hearing; used to repair a broken eardrum.
<i>Tympanostomy</i>	B	Surgical implantation of tubes in the eardrum used to prevent a build up of air pressure and fluid in the middle ear and, thus, prevent recurrent middle-ear infections.

<i>Unilateral</i>	B	One-sided; in one ear.
<i>Unilateral hearing loss</i>	H	A mild to profound hearing loss in one ear.
<i>Unilateral presentation</i>	A	Presentation of a stimulus to one side only of a subject's visual field.
<i>Utricle</i>	E	See Vestibular Labyrinth
<i>Variance</i>	A	A mathematical estimate of the variation within a given set of experimental data.
<i>Vertigo</i>	B	Dizziness
<i>Vestibular Labyrinth</i>	E	The vestibular labyrinth is comprised of the sacculle and utricle, sense organs of balance which inform the brain about our linear position in space. The horizontal, anterior, and posterior semi-circular canals are also part of our vestibular labyrinth, and inform our brains about rotational movement in space.
<i>VII Nerve</i>	E	See Facial Nerve .
<i>VIII Nerve</i>	E	See Auditory Nerve .
<i>Visual Reinforcement Audiometry (VRA)</i>	H	A method of assessment in which the child is conditioned to look at a toy that lights each time he or she hears a sound; used with young children.
<i>Webster's test</i>	B	Tuning-fork test which determines which ear functions better.
<i>Word recognition score</i>	G	In percent correct, the ability to repeat single-syllable words presented at a comfortable loudness level. Usually, 25-word or 50-word lists are used. The words can either be recorded (preferred) or be presented through live voice.

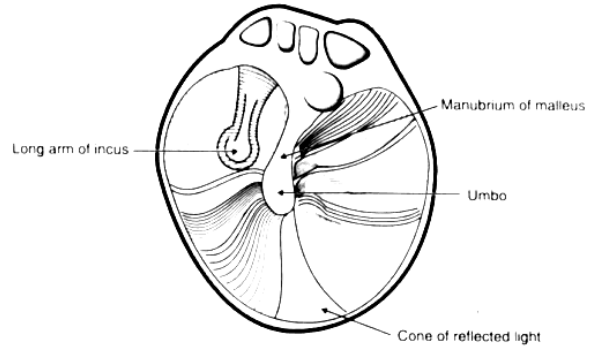
Pictures

cochlea F



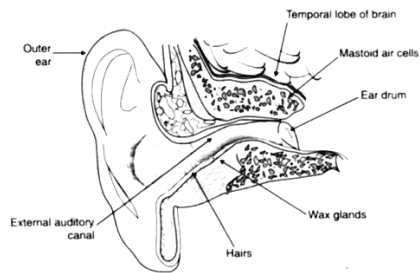
Drum

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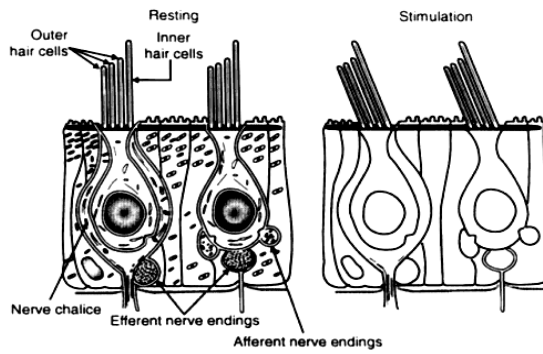
External ear

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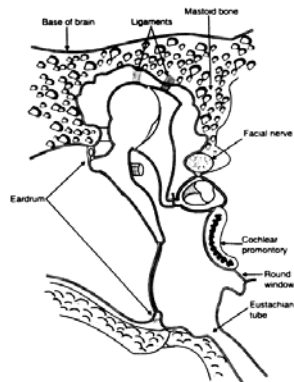
Hair cell

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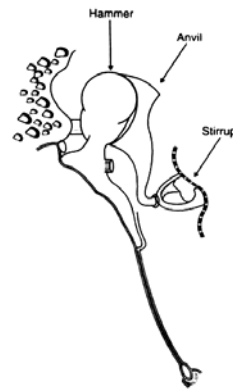
Middle Ear

F



Ossicles

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*) Personal adaptation of information