



Sensorineural Hearing Loss

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- Sound is gathered by the outer ear and moved down the ear canal to the eardrum. The eardrum moves/vibrates in response to the soundwave which sets off a chain reaction movement of three bones on the middle ear. The sound is conducted across the eardrum and middle ear bones (malleus, incus and stapes) to the doorway of the inner ear (oval window).
- Once the sound vibration reaches the oval window, the movement of the last middle ear bone pushes on fluid housed inside the inner ear (cochlea). This fluid moves (at the same frequency and intensity as the soundwave), and it stimulates tiny sensory hairs cells to move.
- The hair cell movement creates electrical impulses which are sent along the hearing nerve to the hearing centers of the brain. The brain then recognizes the sound.
- When there is impairment/damage/malformation to the little hair cells or structures of the inner ear, we call this a "sensory" hearing loss.
- "Neural" hearing loss is when the impairment/damage/malformation is to the hearing nerve.
- If it is unclear where the problem exists in the inner ear, a hearing loss may be labeled as "sensorineural hearing loss".
- Sensorineural hearing loss can occur for many reasons, including illness (mom or baby), medicines, genetic causes, or as part of a syndrome. Sometimes it is unknown.
- Sensorineural hearing loss can range from very mild to profound. Also, a child may have a mixed loss which includes both a conductive and a sensorineural hearing loss.
- We know that even mild hearing loss can have a significant impact on babies' ability to learn to listen and talk, so treatment should always be investigated and given as early as possible.
- Treatment for sensorineural hearing loss may be the fitting of hearing aids, cochlear implantation or a combination of both

