

Presbycusis



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Presbycusis (submitted) Presbycusis Alteration in the ability to hear may result in physical and psychosocial discomforts. It could be irritating to the people the affected person communicates with and so with the affected person which in return limits conversations. Among such hearing alterations is the case of presbycusis where there is difficulty in detecting certain sound within the normal range of hearing. Understanding the normal hearing process, how involved structures transmit sound, causes of presbycusis and effects of it to the individual highlights the consequences of having the disorder. The process of normal hearing starts when sound waves are conducted through the outer ear canal to the eardrum. The eardrum in return vibrates to set the malleus, the incus, and the stapes of the middle ear in motion. These three bones which terminate in the fluid filled opening within the inner ear particularly the snail like structure, cochlea responds to vibrations from the surroundings that are the basis of sound. The chain of command from these three bones triggers the fluid which relays the oscillating currents to the organ of corti. Currents are transferred with the help of the tiny hair projections lining the internal membrane of the cochlea and waving like the smooth underwater plants to move the sound that stimulates nerve endings. Thousands of these nerve endings which merge at the end of the cochlea unite to become the auditory nerve which carries nerve impulses to the hearing area of the cerebral cortex in the brain (Wagman, 1992). Presbycusis which is a progressive hearing loss is caused by defects in the outer, middle or inner ear. Presence of congenital deformities in the outer ear may interfere with the capture of sound waves from the environment that maybe funneled to the ear canal. Reduced sound as a consequence of deformity may lessen the vibration effect thus sound is

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not clear or heard. Damage to the stapedius muscle within the middle ear also results in presbycusis. In the event this tiny muscle cannot function normally, the eardrum cannot relax and tighten to adjust to the changing volume of sounds predisposing the individual for chronic exposure to loud noises which in turn damages receptors in the organ of corti. In addition, excess movement of the stapes is not controlled or limited with the damage of the stapedius exposing the oval window to noise related damage because it is not protected. Presbycusis is also associated with aging causing deterioration of the structures of the cochlear duct that results in the degeneration of nerve tissues. As this progress, the organ of corti atrophies resulting in the inability of the person not to hear high tones (Thibodeau & Patton, 2003). Individuals suffering from presbycusis often have difficulty in conversing with other people. Most often they ask for repetition of what was said in unusually louder tone and turns one ear to the speaker to listen. When attending concert or any similar activities, the individual has the tendency to disturb others in the crowd to translate or explain what he or she sees on stage. They also withdraw from activities that necessitate conversations. Seldom, they participate in casual conversation thus they deviate in speech and sound articulation. Observation has it that they respond more to movement rather than to sound. Unfortunately not only in conversation presbycusis affects the individual but also extends in limiting certain activities of the individual that were once enjoyed. For example, if the person previously enjoys attending disco dances and enjoys music, it would not be the same with the presence of the disorder. To add to this, interest to be with friends would also be neglected as the person recognizes that there is no essence to be with them with the absence of meaningful

interaction. Presbycusis further affects the person in his work in a way that it may interfere with the way they relate to their colleagues. In most cases, the individual becomes uncomfortable and may become withdrawn. Discussions of important matters with coworkers and bosses would be difficult. As a result, motivation to excel in the work place would be curtailed. Apart from this, how the person treats others in the work place would always be accompanied with suspicions which might in return be interpreted by colleagues as a form of mental illness and the person might be labeled as paranoid. Work Cited Thibodeau, G., & Patton, K., (2003). Anatomy and Physiology. Mosby. Philadelphia. Wagman, R., (1992). Medical and health encyclopedia. Ferguson Publishing. Chicago.