

The human ear is fascinating it's able to distinguish between 7,000 different pitches and enables the brain to locate sound sources however over 36 million people experience hearing loss of those people 80% of them suffer from what is known as sensorineural hearing loss caused by dysfunctions in the cochlea there are fine hair cells responsible for sound transmission the three rows of outer hair cells react to soft sounds and sharpen the differences between similar sound frequencies the inner hair cells react to loud sounds together they result in a smooth perception of the full sound range and a good separation of similar sounds these fine hair cells can be damaged for example by injuries illnesses noise exposure or regular wear and tear in the affected areas the nerve cells are no longer stimulated effectively resulting in not enough or distorted impulses being transmitted to the brain for processing typically it's the high frequencies that are affected first as the respective hair cells are located at the entry of the cochlea where every sound wave passes by this usually leads to difficulty in hearing and understanding soft high-pitched sounds such as " th" which in normal hearing help us to distinguish between words

like pass and path hearing loss is a process that normally develops over many years and no two cases are the same however modern hearing instruments can compensate for most hearing losses with intelligent technology at miracle ear we are here to help you and others get back the sounds of life.