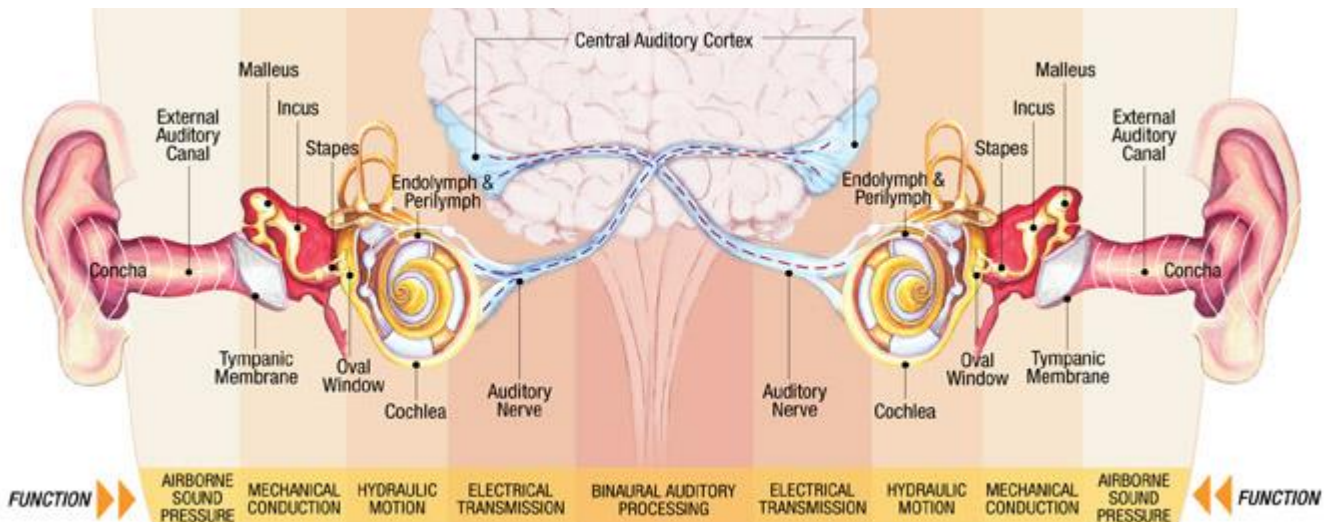
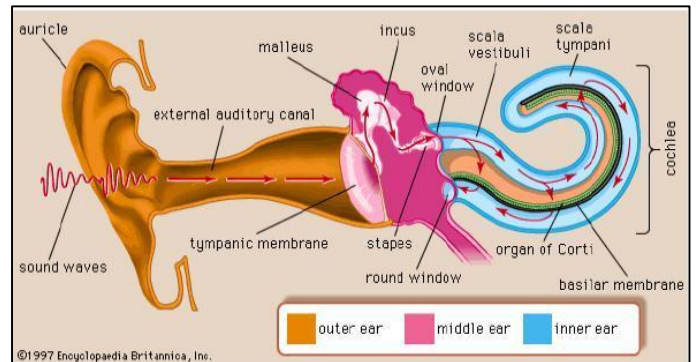
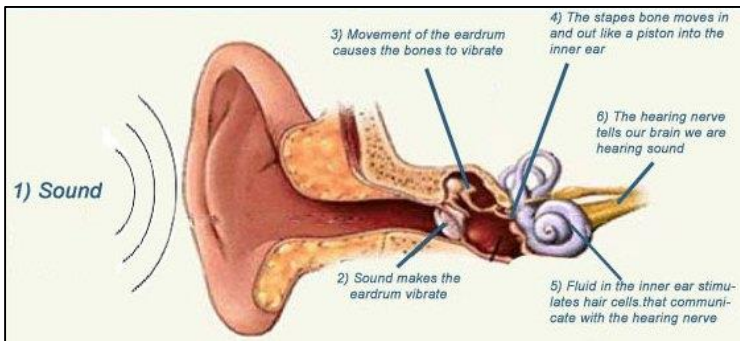
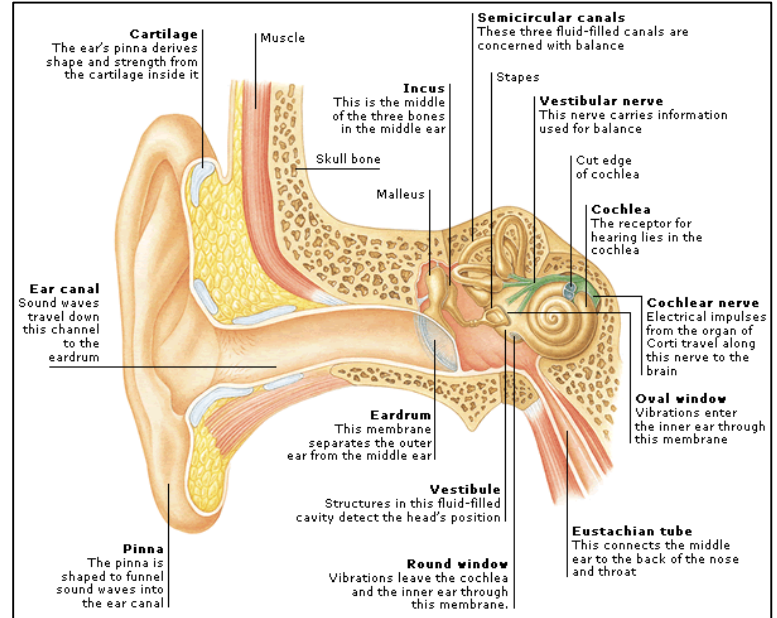
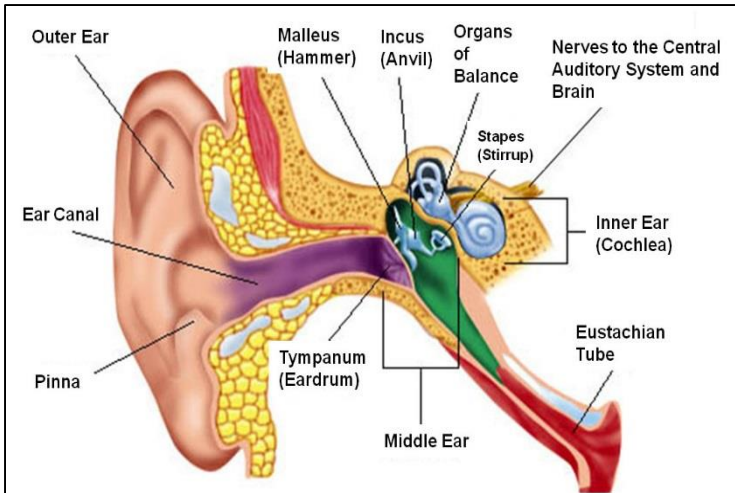
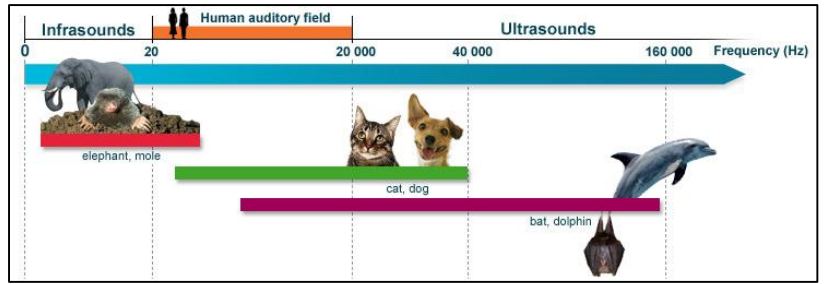
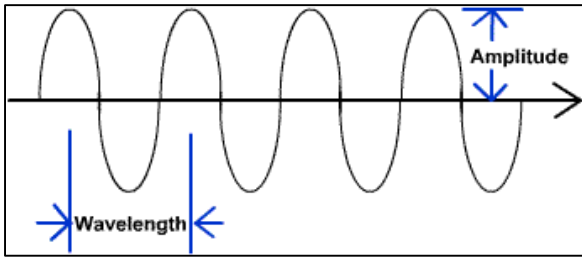
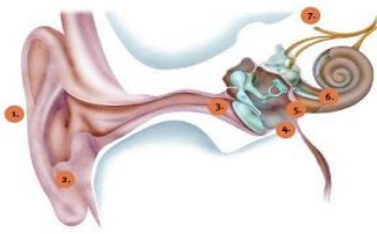


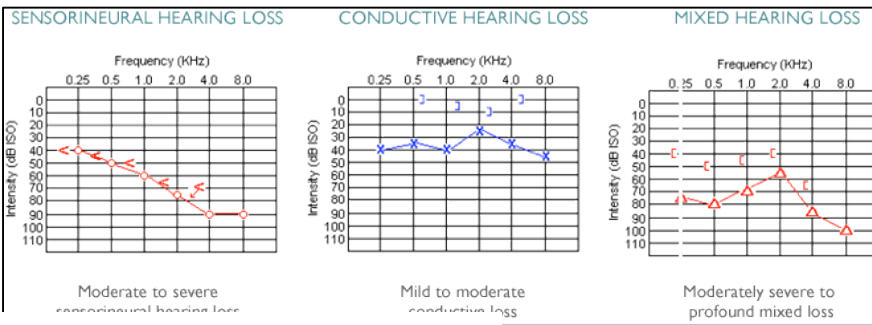
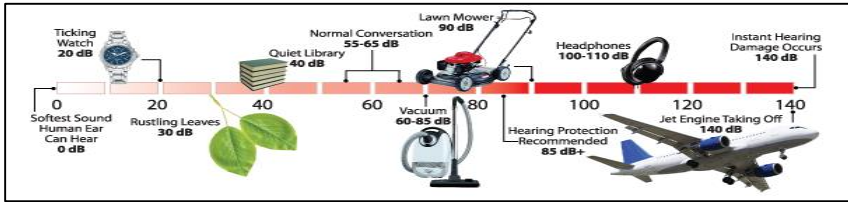
MI 1.3 Diagrams



Anatomy of the Ear

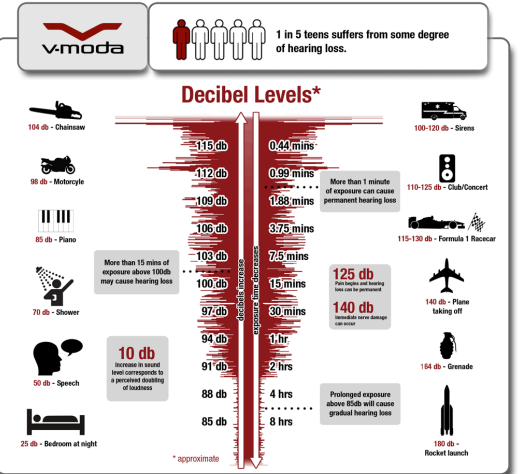


- 1 Sound waves are picked up by the outer ear, which is made up of the pinna and the ear canal.
- 2 Sound is channeled to the eardrum, which vibrates when the sound waves touch it.
- 3 The vibrations are picked up by three tiny bones known as the hammer, anvil and stirrup, which create a bridge from the eardrum to the inner ear.
- 4 The vibrations move on to the cochlea – a spiral-shaped capsule housing a system of fluid-filled tubes.
- 5 When the sound waves reach the fluid it begins to move, setting thousands of tiny hair cells in motion.
- 6 The movements of the hair cells are transformed into electric impulses that travel along the auditory nerve to the brain itself.
- 7 The brain decodes and interprets the electronic impulses, turning a stream of speech into separate, recognizable words.



What are the common types of Hearing Loss?

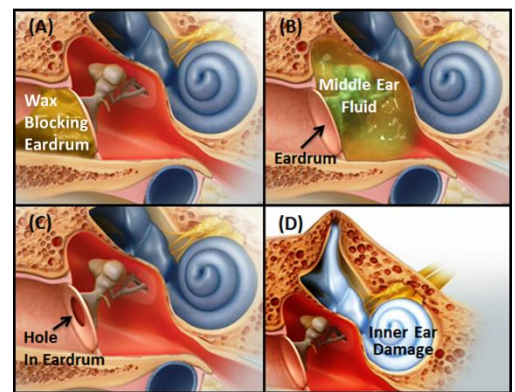
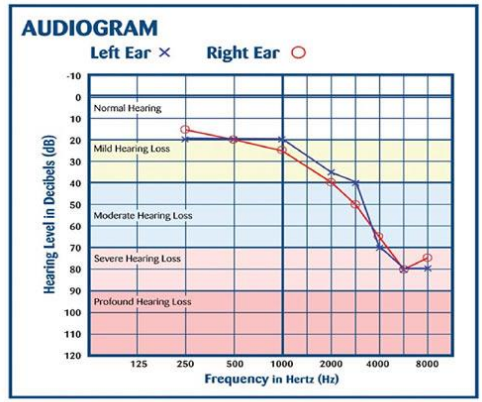
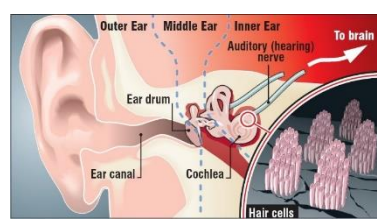
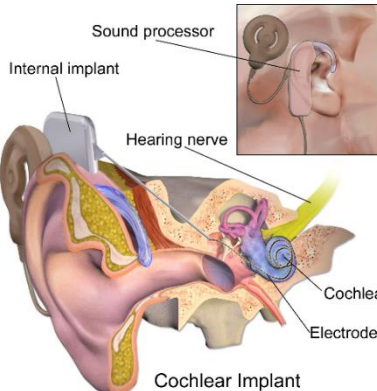
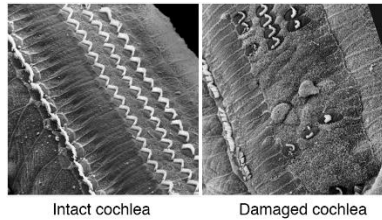
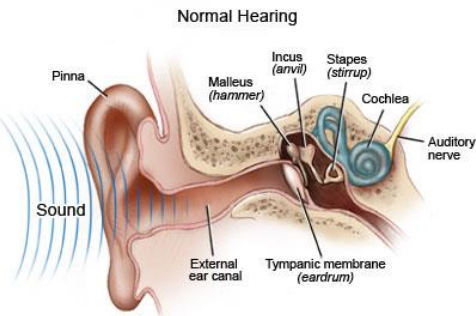
- **Conductive:** When hearing loss is due to problems with the ear canal, ear drum, or middle ear and its little bones.
- **Sensory Neural:** When hearing loss is due to problems of the inner ear, also known as nerve-related hearing loss.
- **Mixed:** In this type of hearing loss, there may be damage in the outer or middle ear and in the inner ear (cochlea) or auditory nerve.



Signs of hearing loss in people:

- Ringing, buzzing, hissing, hearing, or roaring in the ear
- Muffled hearing
- Pus or fluid leaking from ear
- Listening to music or TV at a higher volume than in the past
- Ear pain, irritation, or itching
- Difficulty distinguishing words that people are saying

Sources: <http://www.nidcd.nih.gov>, <http://www.scienceelectronic.com>, <http://www.webmd.com/a-to-z-guides/hearing-loss-symptoms>, <http://www.tinnitushealt.com/news/keymessagesandfacts.htm>, <http://www.infographicshouse.com/hearing-loss-statistics-infographic-hearing-facts>



Adapted from: American Academy of Audiology, www.audiology.org and Northern, J.A. Downs, M. (2002). Audiogram of familiar sounds, and Ling, D. & Ling, A. (1970). Aural Habilitation.