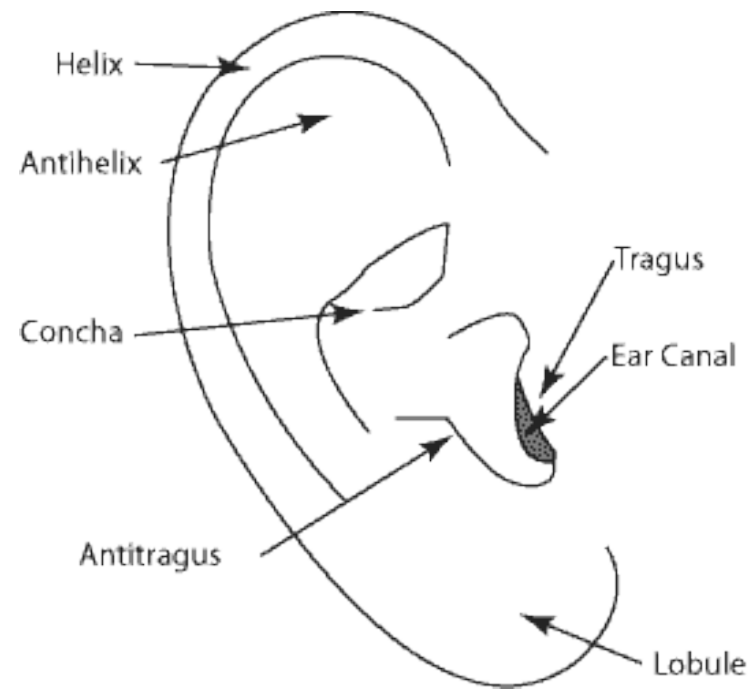


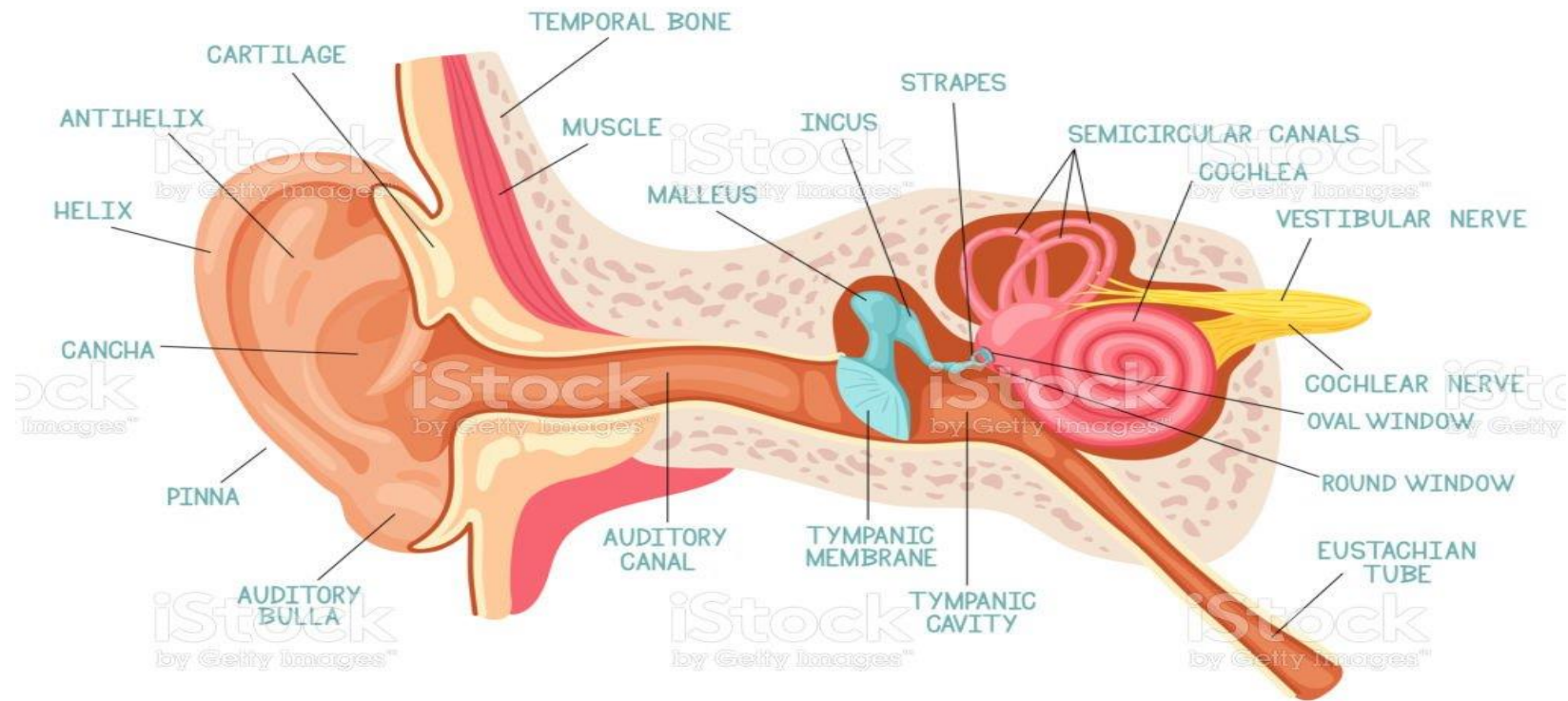
Ears

Dr.Priti Acharya

Parts of outer Ear



ANATOMY OF HUMAN EAR



Introduction

Ear is the organ of hearing

It play a importance role in maintain the balance of the body

Ear is divided into 3 main regions

External ear- which are concerned with collection transmitting of sound wave to the tympanic membrane

Middle ear- is a narrow silt like air filled cavity within the petrous part of temporal bone

Internal ear – consist of closed system of fluid filled intercommunicating ,membrane sac and duct called membranous labyrinth

- External Ear

- Auricle(Pinna)
- External auditory canal

- Middle Ear

- Tympanic membrane(Ear drum)
- Auditory Ossicles
- Eustachian tube

- Inner Ear
- Membranous Labyrinth
- Bony Labyrinth

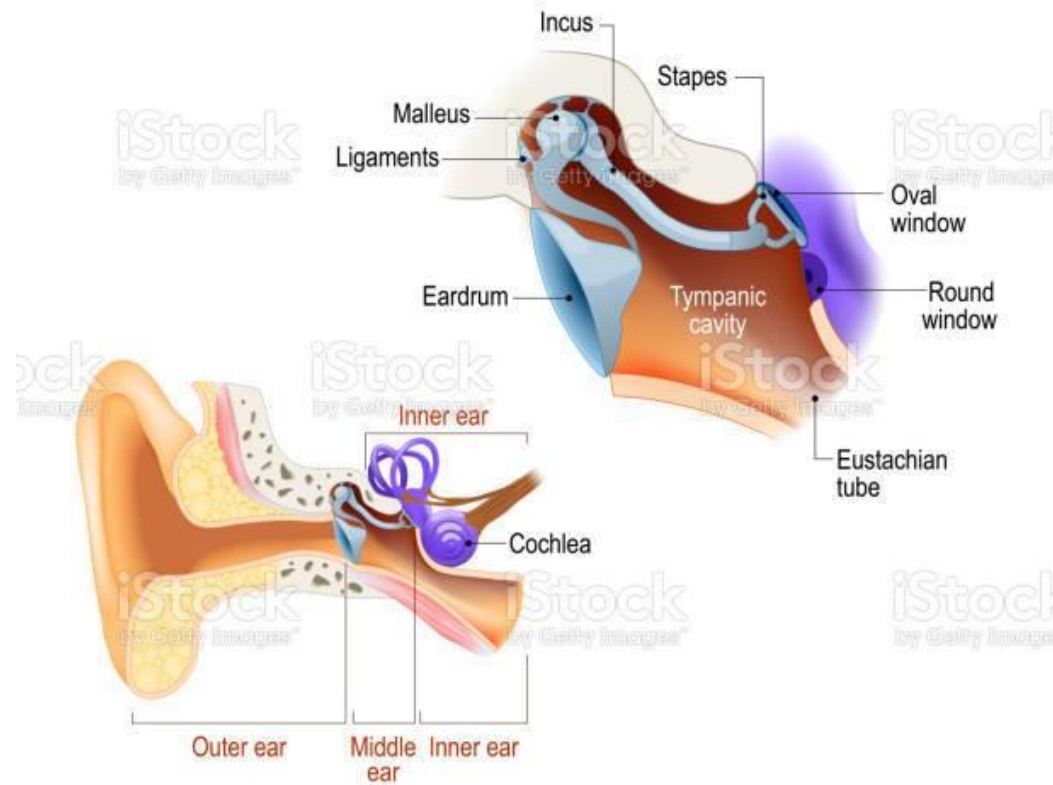
External Ear

- **Auricle**
- Is a wave like pattern of projection on the side of head
- Made up of elastic cartilage except pinna
- Lobules of pinna is made of fibro fatty tissue covered with skin
- Auricle present two surface
- lateral surface-concha ,helix, anti helix, tragus, antitragus, cymba concha, lobule
- medial surface – eminentia concha, eminentia triangularis

- External auditory canal

- Lies within the temporal bone and connect the ear drum(tympanic membrane)
- It is not a straight tube but it has a typical S shape structure
- Measures- 24mm along its posterior wall
- Contains the ceruminous gland which secrets ear wax

MIDDLE EAR



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Middle ear

- Tympanic membrane
- Epithelial and simple cuboidal
- It is partition between external acoustic meatus and middle ear
- It is a oval shape

- Auditory Ossicles

1 Malleus

- Attach to the ear drum
- Articulate with incus

2 Incus

- Articulate with stapes

3 Stapes

- Footplate of stapes fit into oval window
- Opening into Eustachian tube

- **Auditory tube**

- It is the route for pathogens to travel from nose to throat to air causing otitis media
- During swallowing and yawning its open to equal pressure in the middle ear

Inner ear

- **Membranous labyrinth** (neurosense organ)

It consists of four part

- Cochlear duct- hearing
- Sacculle
- Utricle
- Semicircular duct- (vertigo)

- Bony Labyrinth

It consist of

- cochlea
- Vestibule
- Semicircular canal