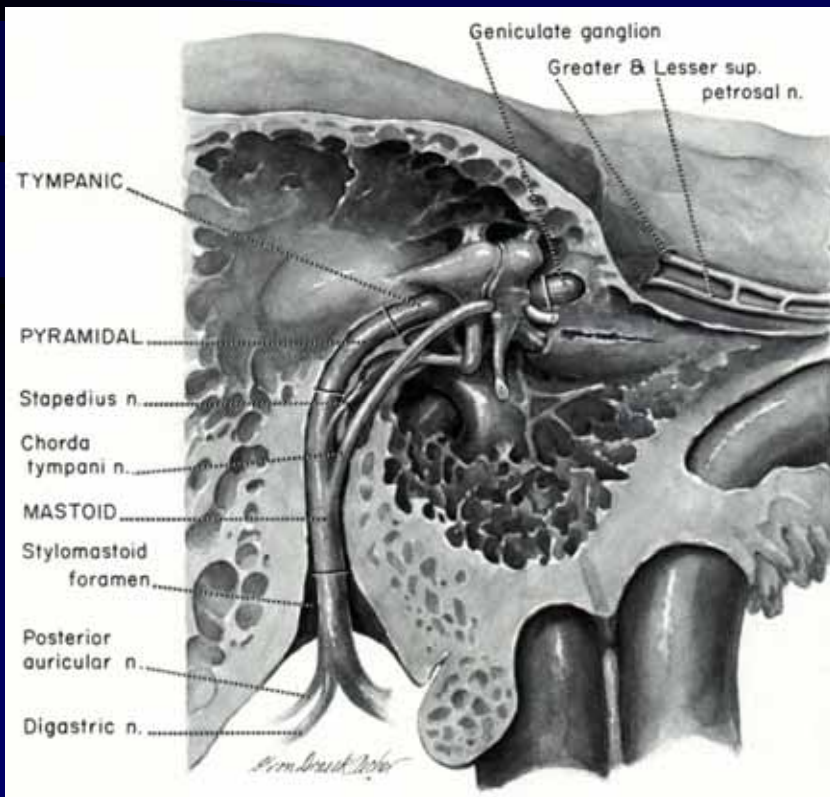


MIDDLE EAR CLEFT: STRUCTURE (ANATOMY) AND FUNCTION (PHYSIOLOGY)



James Loock

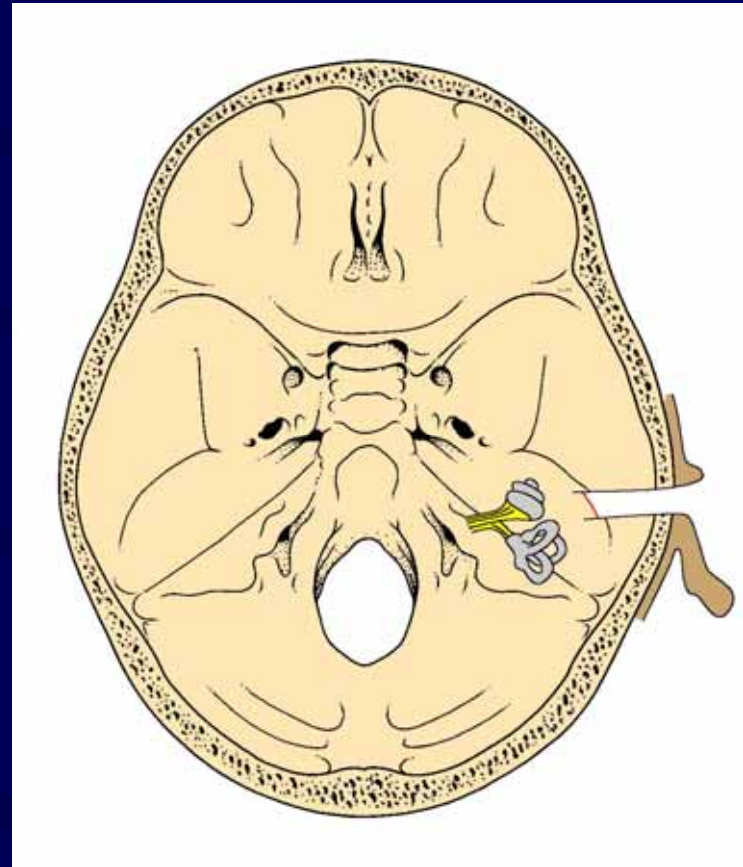
Division ORL

Faculty of Health Sciences

Stellenbosch University

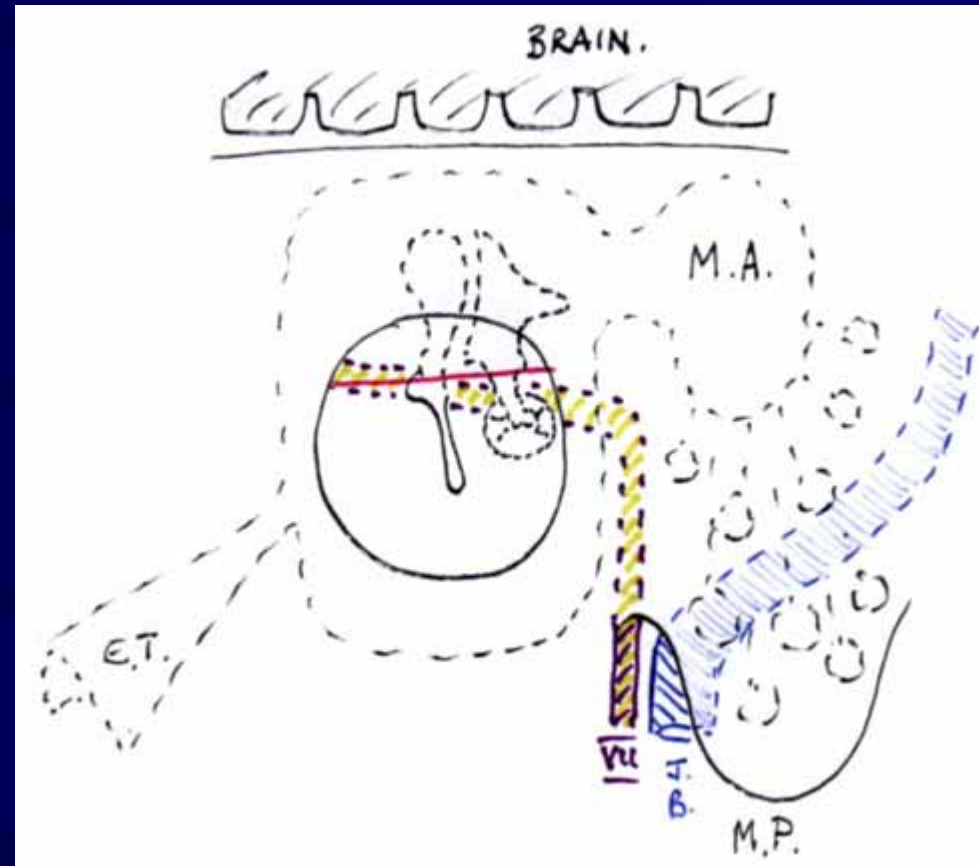
Middle ear anatomy: site:

- Petrous Temporal Bone
- Ext. ear (Aud. Meatus)
- Inner ear: Cochlea
Vestibule
Int. Aud. Meatus



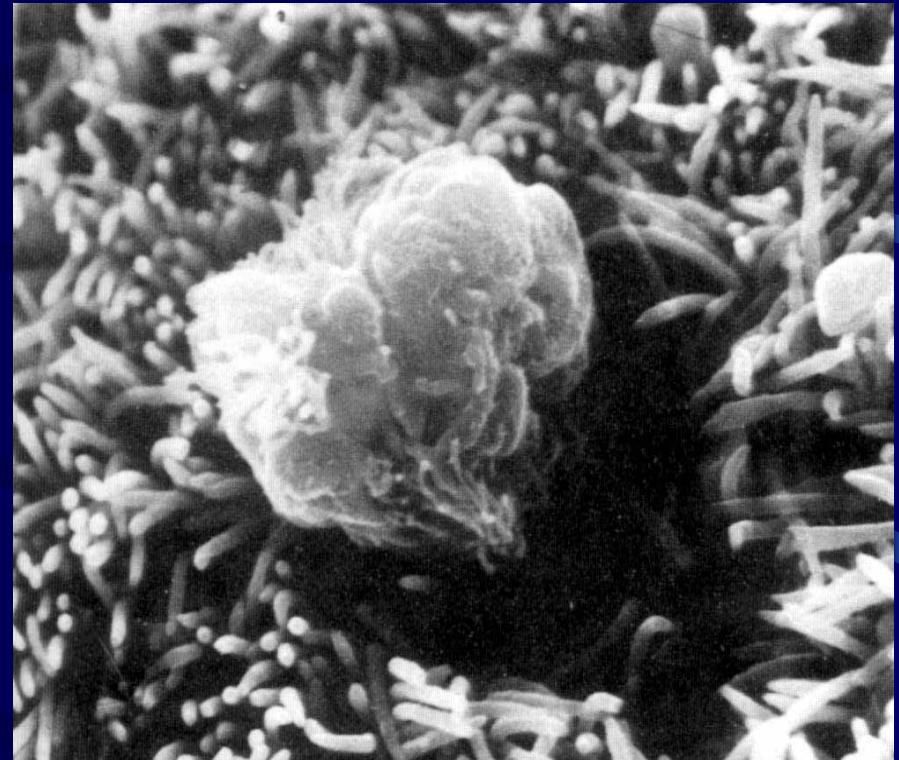
Middle ear anatomy: relations:

- Dura/Brain
- Lateral venous sinus $\langle \boxtimes \rangle$
sigmoid sinus $\langle \boxtimes \rangle$ Jug.bulb
 $\langle \boxtimes \rangle$ IJ Vein
- Inner Ear (Labyrinth)
- EAM



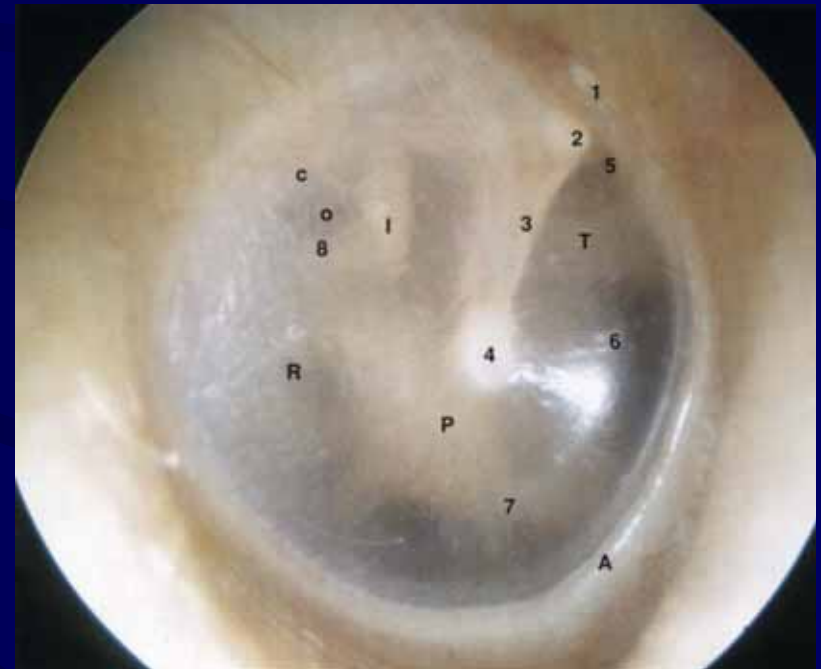
Middle ear anatomy: microanatomy:

- **Mucosa:**
 - Flat non-ciliated epithelium
 - Respiratory epith. (nearer ET)
 - Goblet cells (mucus)
- Round window membrane
- T.M. (Drum)
 - Pars tensa
 - Pars flaccida



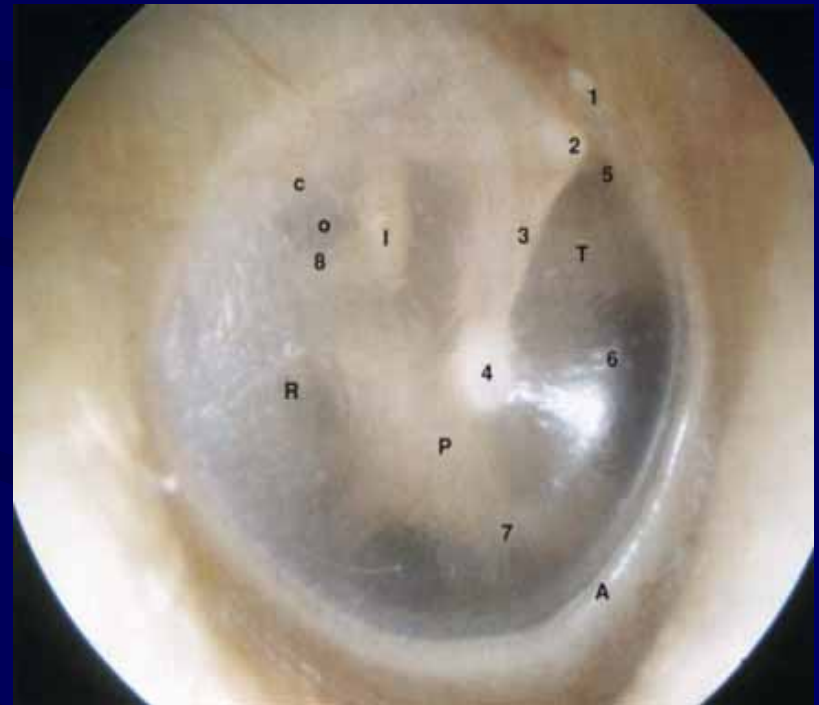
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Middle ear Physiology:

- Aeration:
 - Eustachian tube
 - Mastoid air cell “reservoir”
- Mucosa
- Sound amplification
 - TM
 - Ossicles

