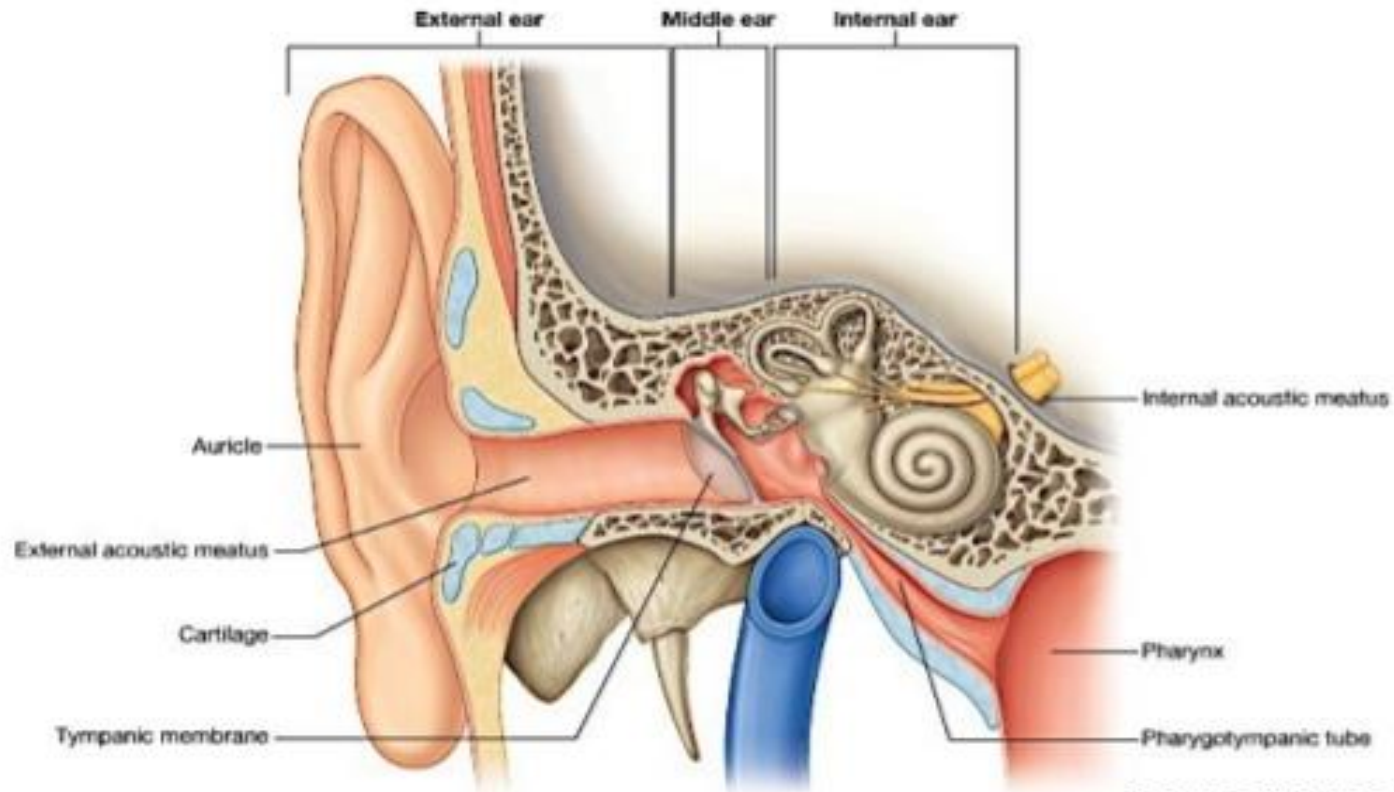


Applied anatomy of the ear

تعتبر المعلومات في هذه المحاضرة ملخصة لذلك
يجب الرجوع للمرجع (الكتاب) الرئيسي
للحصول على كامل المعلومة

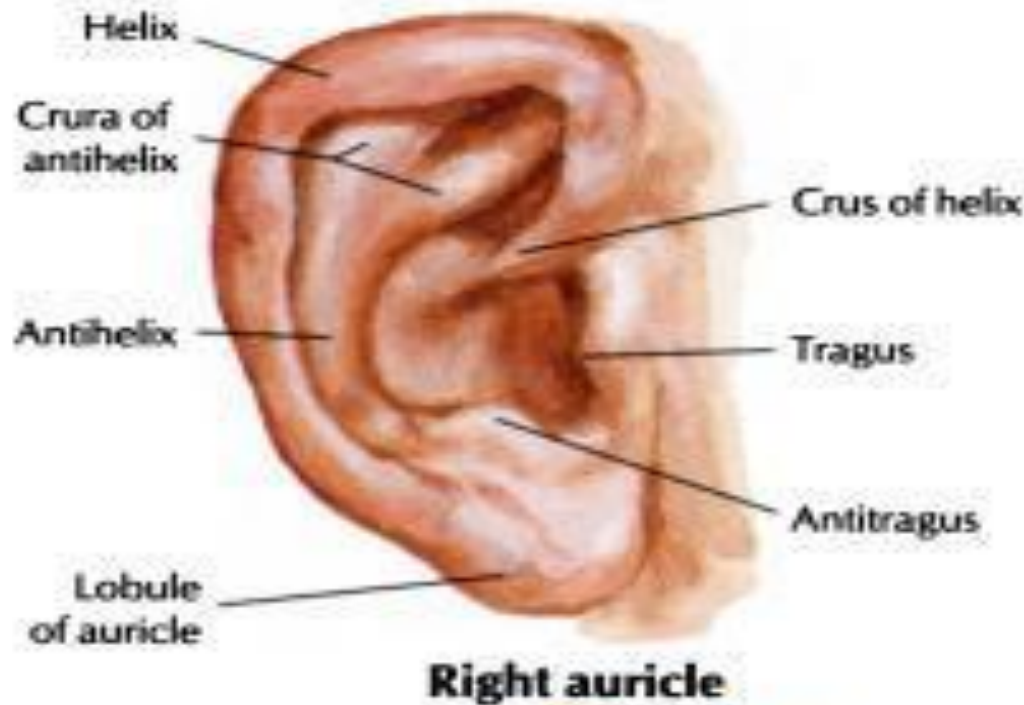
EAR AND AUDITORY PATHWAY



www.slideshare.net

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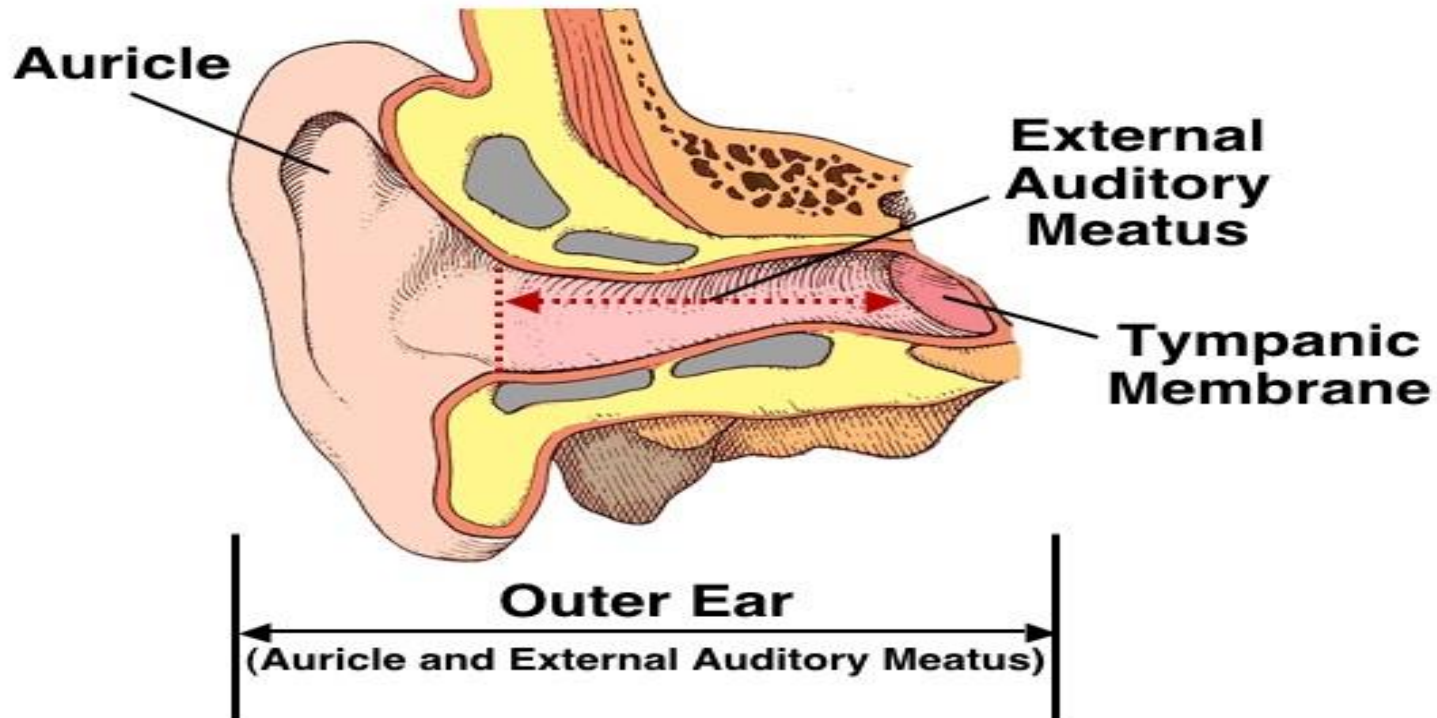
The Auricle: helix, crus of helix, tragus, lobule, antihelix, triangular fossa, antitragus, concha, Ext. aud. Canal opening



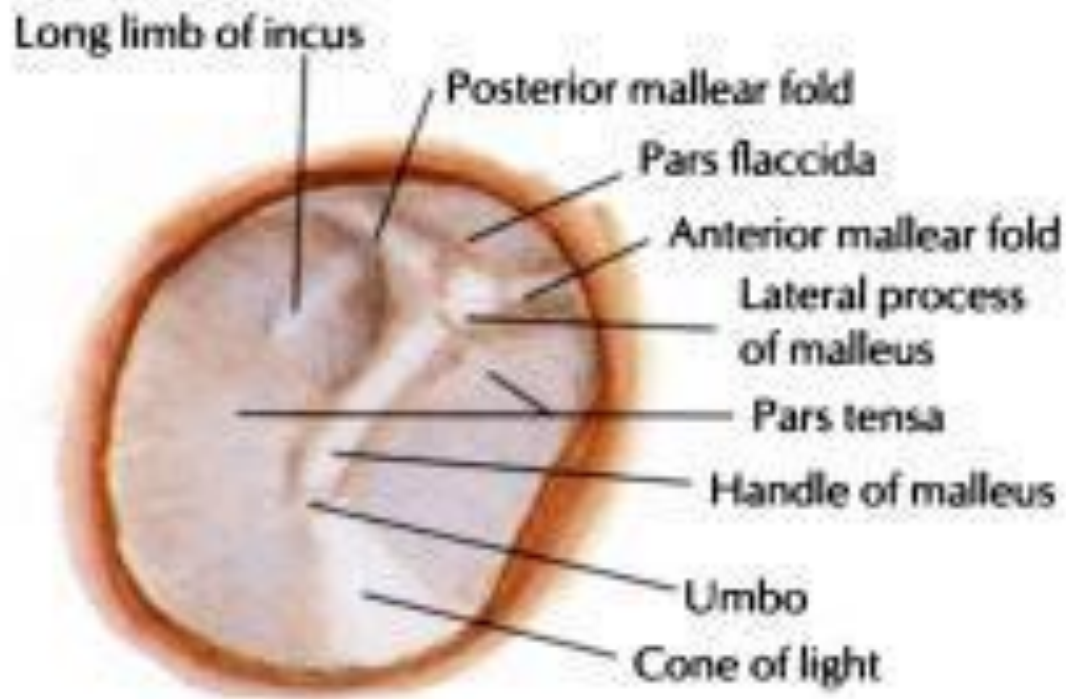
The External Auditory Canal (EAC): 24 mm

1-Outer 1/3: Cartilaginous part: hair follicles, sebaceous glands, cerumen glands

The wax: is hydrophobic, acidic & with antibacterial properties, the epithelium of the EAC has the capacity to migrate. 2- Inner 2/3: Bony part



THE TYMPANIC MEMBRANE (TM)



**Right tympanic membrane (eardrum)
viewed through speculum**

NERVE SUPPLY OF EXTERNAL EAR: •

1. Auriculo-temporal nerve (V3) •

2. Greater Auricular (C2, 3) •

3. Lesser Occipital (C2) •

4. Arnold`s nerve (X) •

5. Facial nerve (sensory twigs) •

BLOOD SUPPLY OF EXTERNAL EAR: branches of •
external carotid artery

Venous drainage: to posterior auricular & •
superficial temporal veins

Lymphatic drainage: to pre-auricular, infra- •
auricular & mastoid lymph nodes.

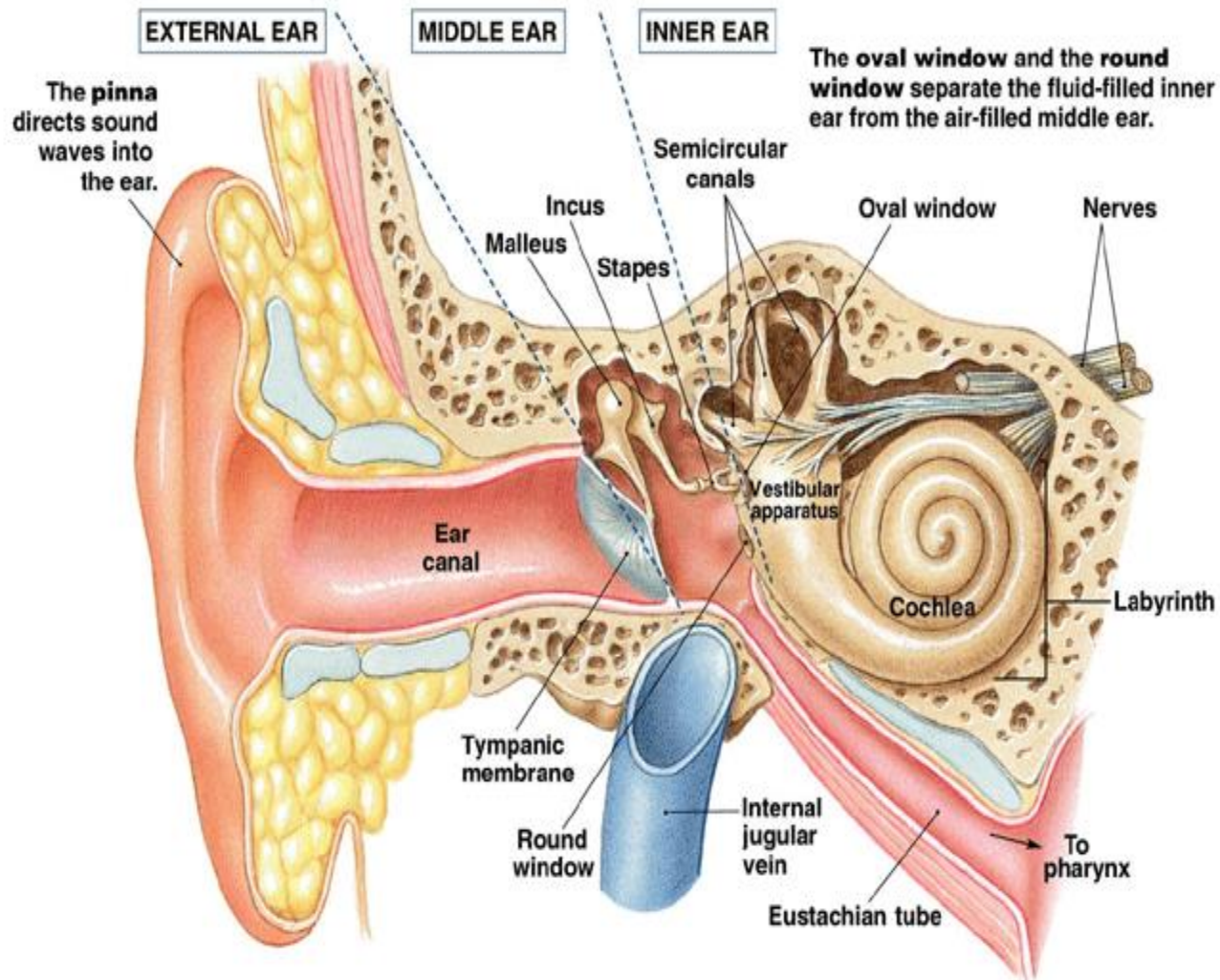
- **THE MIDDLE EAR CLEFT** •

Comprises of: •

- 1. Middle Ear Proper** •
- 2. Aditus & Mastoid Antrum and Mastoid air** •
cells
- 3. Eustachian Tube** •
 - Upper 1/3: Bony** •
 - Lower 2/3: Cartilaginous** •

THE MIDDLE EAR PROPER: a box of 6 walls, is an air-containing space with bony walls except laterally by TM.

Lateral, medial, anterior, posterior, superior, inferior boundaries



Sensory nerve supply of the middle ear: •

Jacobson`s nerve, a branch of IX (Glossopharyngeal nerve), •

Motor supply of middle ear muscles: by V & VII •
cranial nerves.

Arterial supply of middle ear: from branches of •
external & internal carotid arteries

Venous drainage: to pterygoid plexus or superior •
petrosal

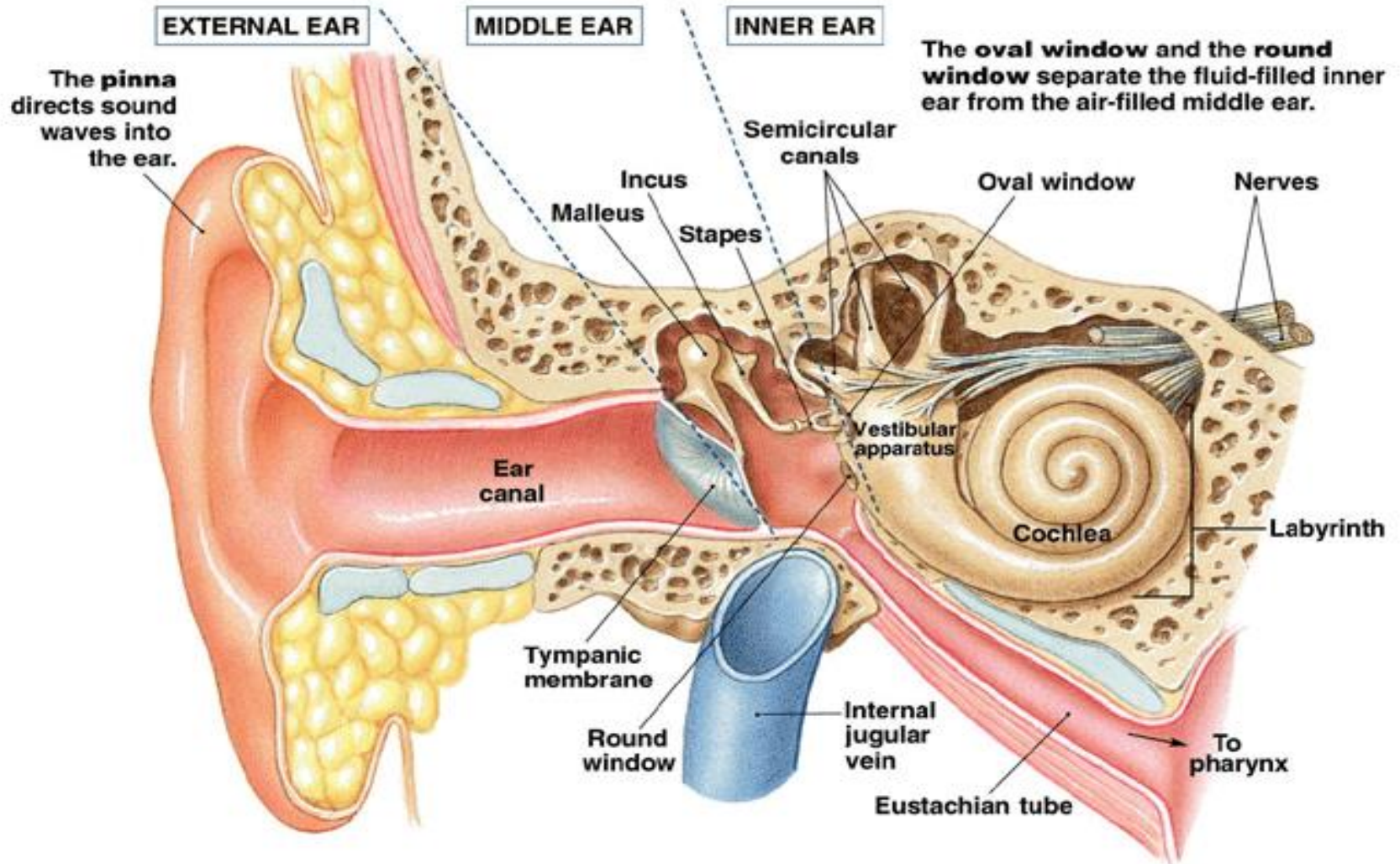
sinus •

Lymphatics: to retropharyngeal lymph node •

Inner ear

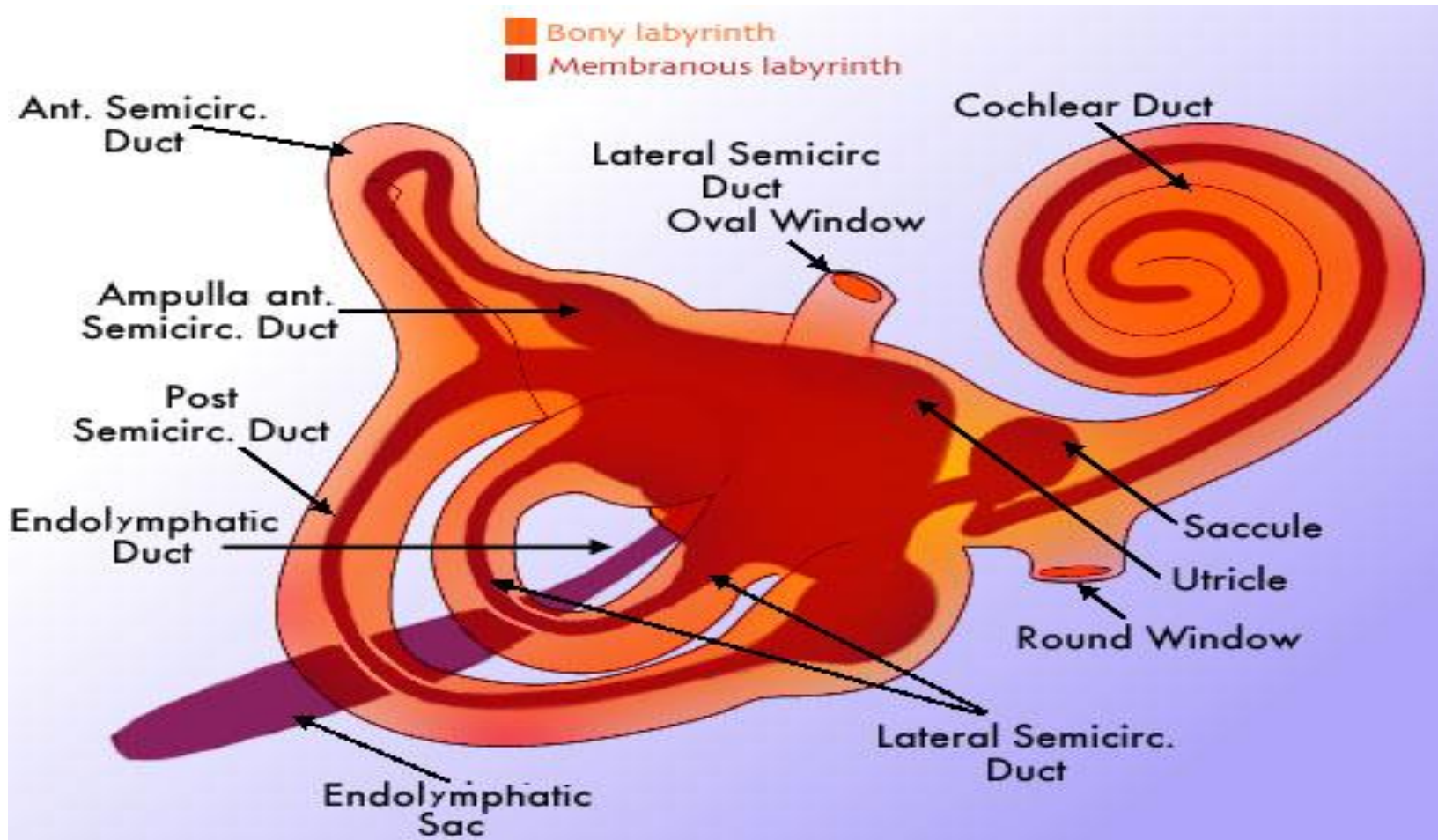
1. Bony Labyrinth :comprises of

A. Bony Semicircular Canals (SCCs) , B. vestibule, C. Cochlea



2. Membranous Labyrinth: comprises of

- A. Membranous SCCs, B. Utricle & Saccule , C. Cochlear Duct – triangular in cross section (Organ of Corti), D. Endolymphatic Duct & Sac ,
- E. Ductus Reuniens



Organ of corti

