

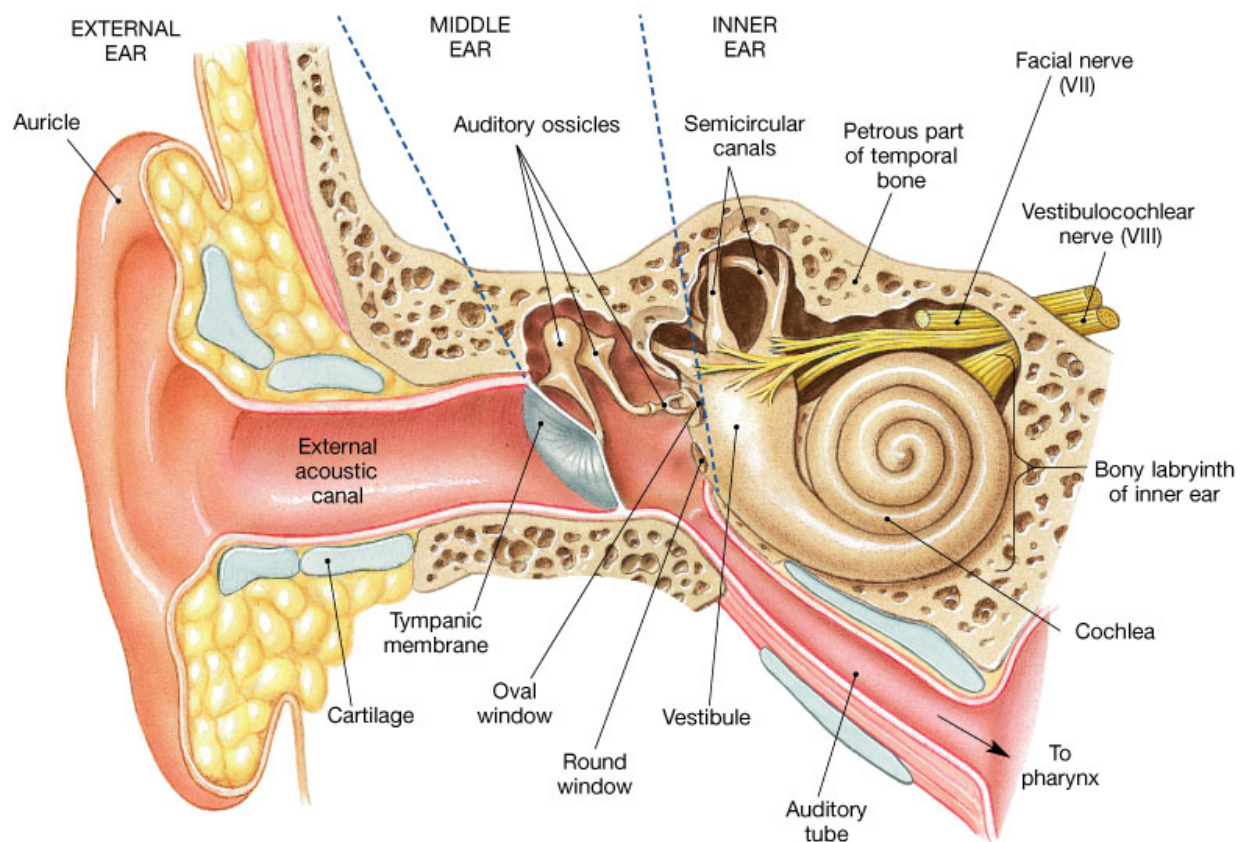
**Reading Assignment:** Read Chapter 10-11 of your text book. You may also read Chapter 10 of Dr. Hill's notes (**recommended reading online, not printing as it is long**). You may search for specific terms or topics using the Adobe Acrobat Reader search tool (binoculars).

This material will primarily discussed in lab. We will cover this material only if time permits

## I. Anatomy of the Ear

SENSES OF THE EAR = Hearing and Equilibrium

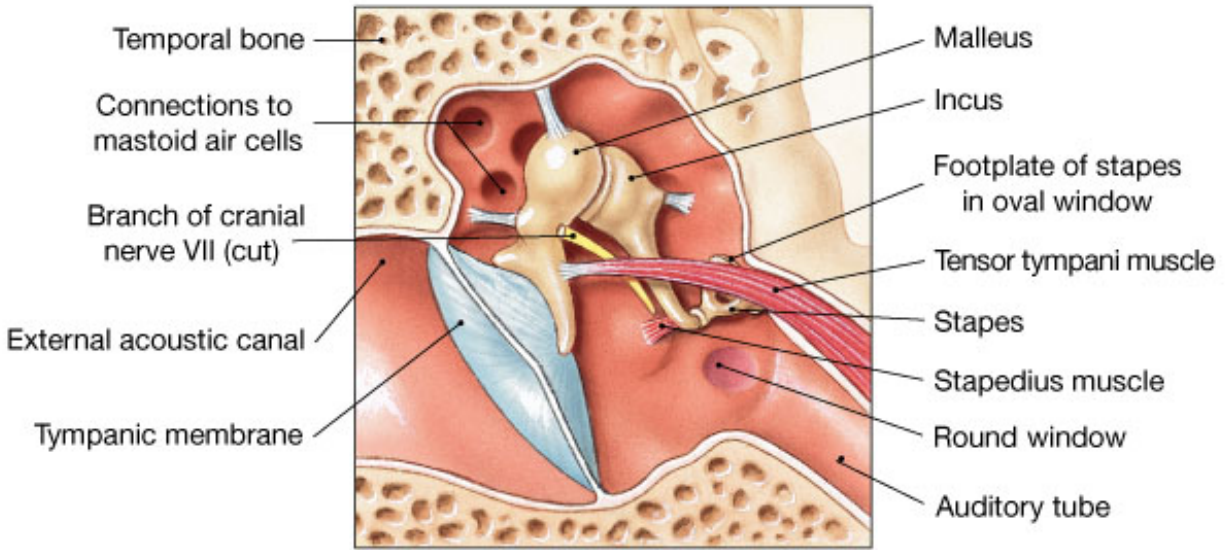
### A. Three Areas of the Ear



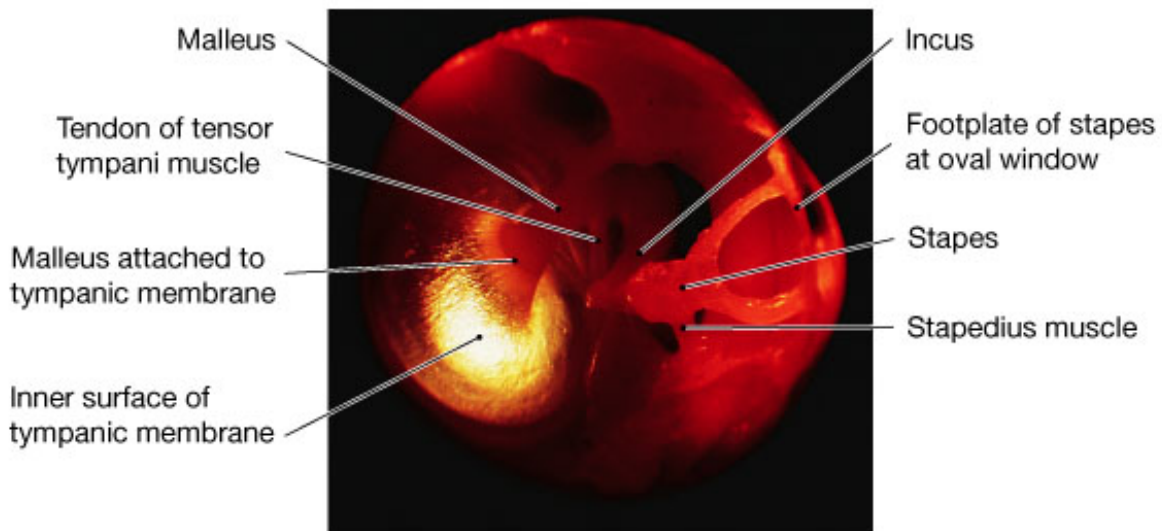
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- 1) External Ear –
- 2) Middle Ear –
- 3) Inner Ear –

## B. Middle Ear Ossicles

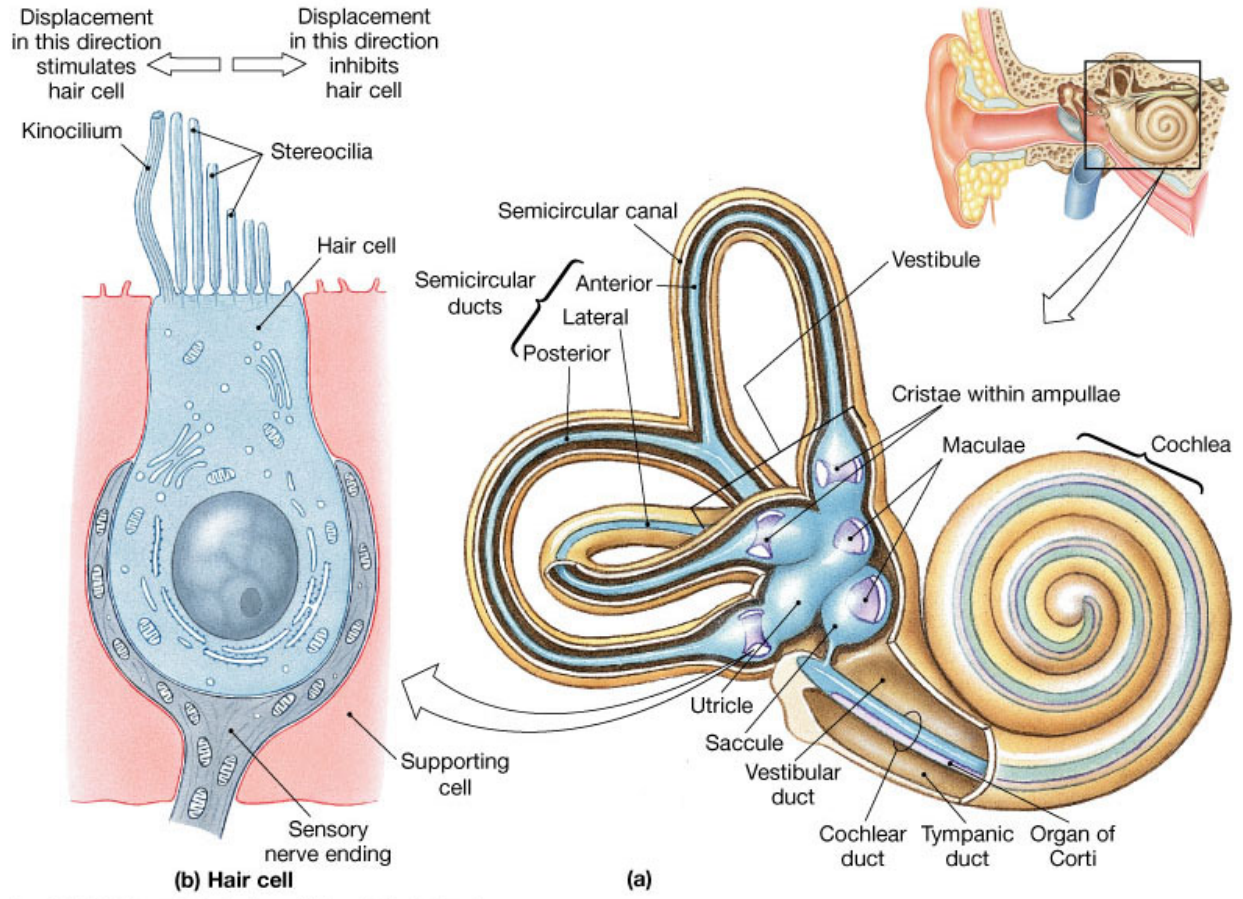


(a)

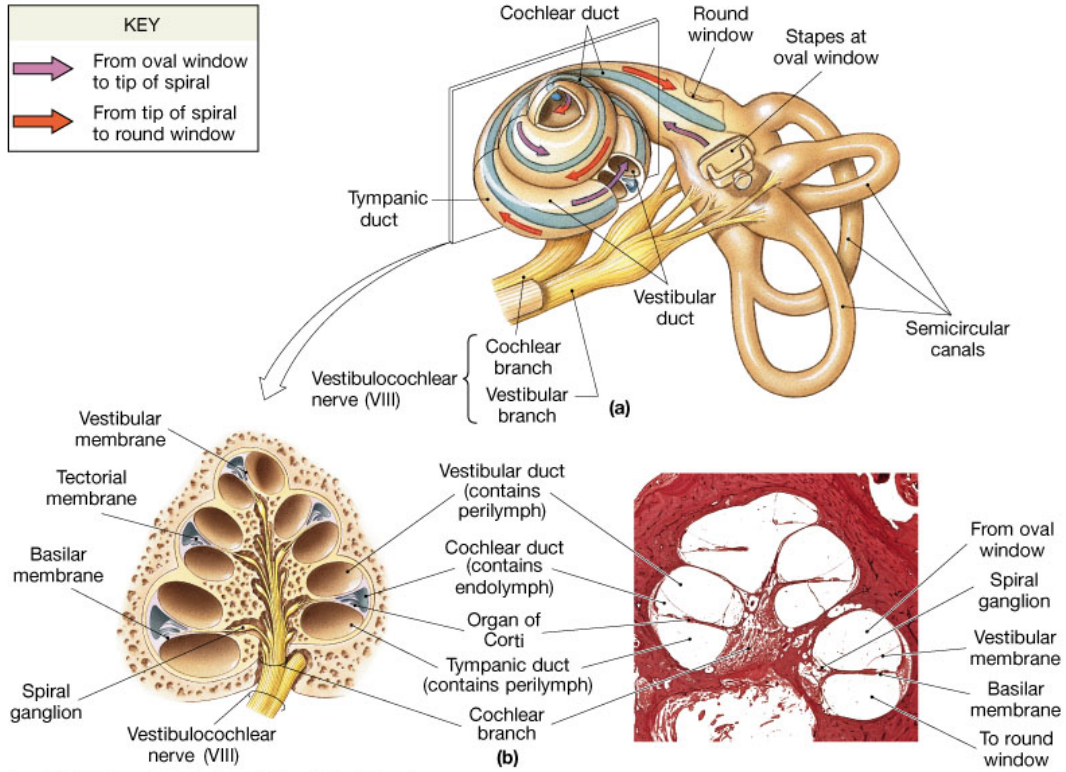


(b)

### C. Inner Ear

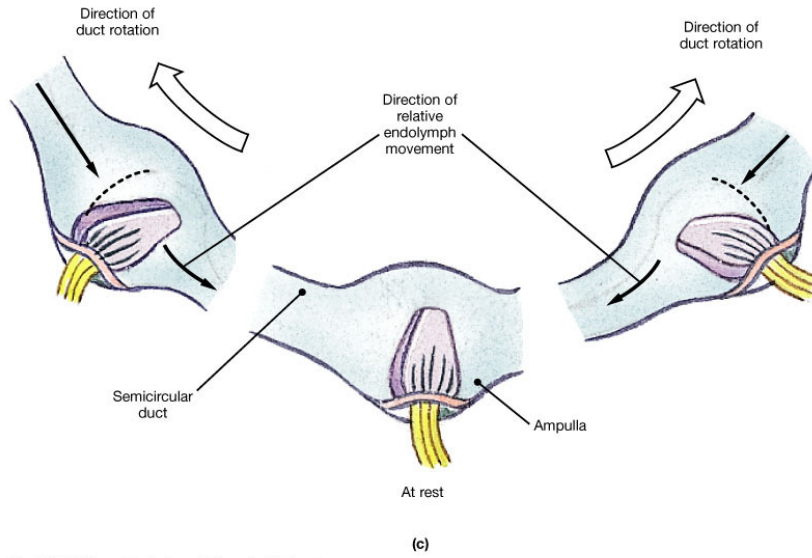


## D. Cochlea Anatomy

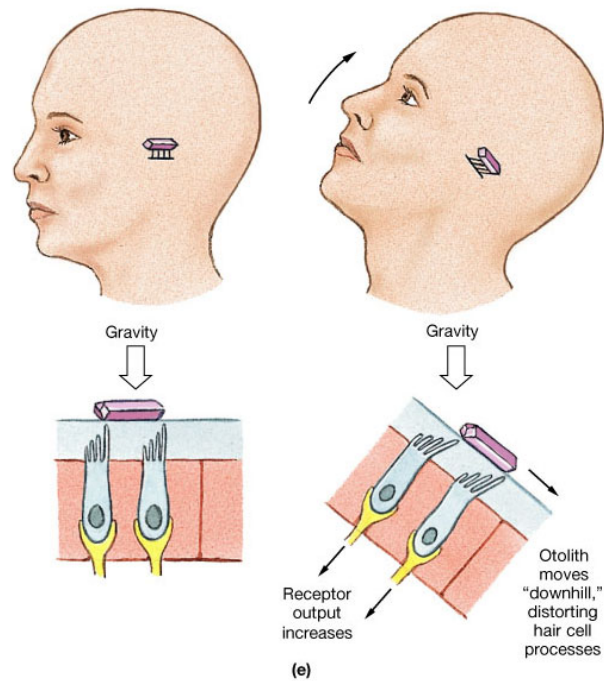


## II. Physiology of Equilibrium and Hearing

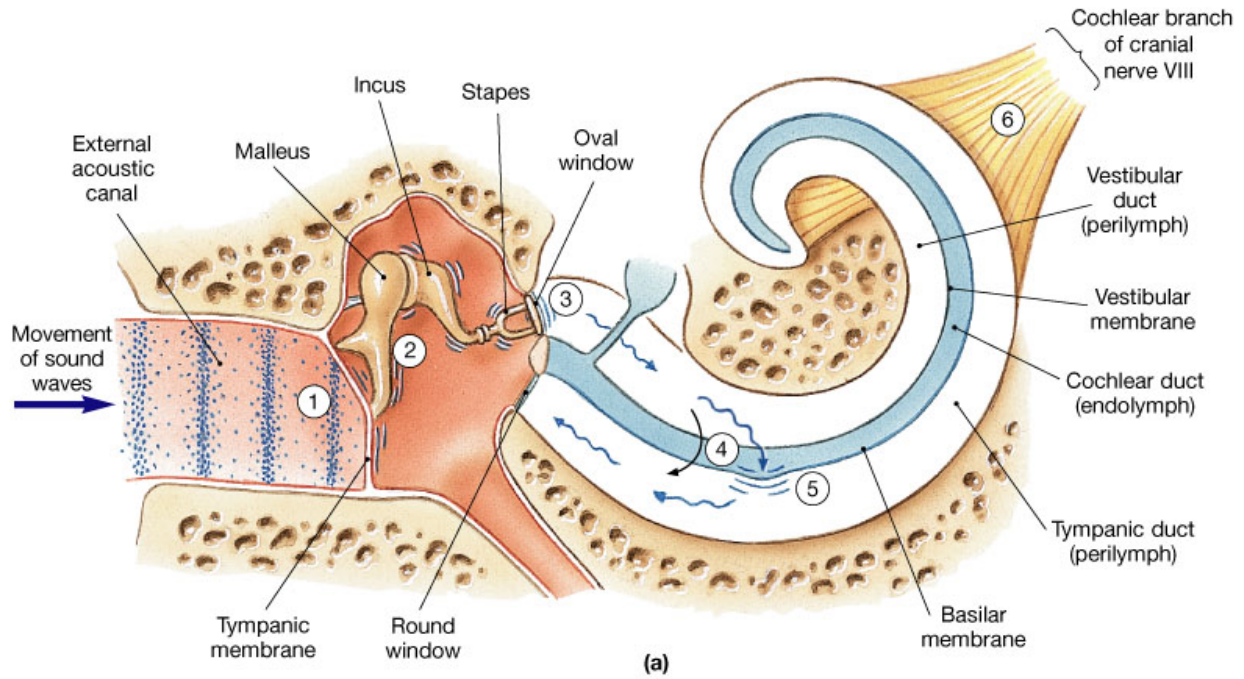
### A. Dynamic Equilibrium (semicircular canals)



### B. Static Equilibrium (vestibule)



## B. Hearing Process



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## REVIEW QUESTIONS

1. Know the structure of the three regions of the ear: pinna, external auditory meatus (auditory tube), middle ear, and inner ear.
2. Be able to identify the tympanic membrane, middle ear ossicles, tensor tympani, semicircular canals, vestibule, cochlea, and C.N. VIII.
3. Know the inner ear anatomy: semicircular canals, ampullae, vestibule, maculae, bony labyrinth, membranous labyrinth, vestibular duct (scala vestibuli), cochlear duct (scala media), tympanic duct (scala tympani), organ of Corti, cochlear branch of C.N. VIII, vestibular branch of C.N. VIII.
4. Which structure(s) is responsible for sense of balance (static)? motion? Hearing?
5. Be able to describe the physiology of static equilibrium, dynamic equilibrium, and hearing.

### Study Questions (p. 460 & 490)

p. 460: 1-23

CD-ROM: all lessons

p. 490: 1, 4, 5, 6, 10, 11, 13, 14

CD-ROM: 11-01, 11-02; try 11-03 and 11-04.