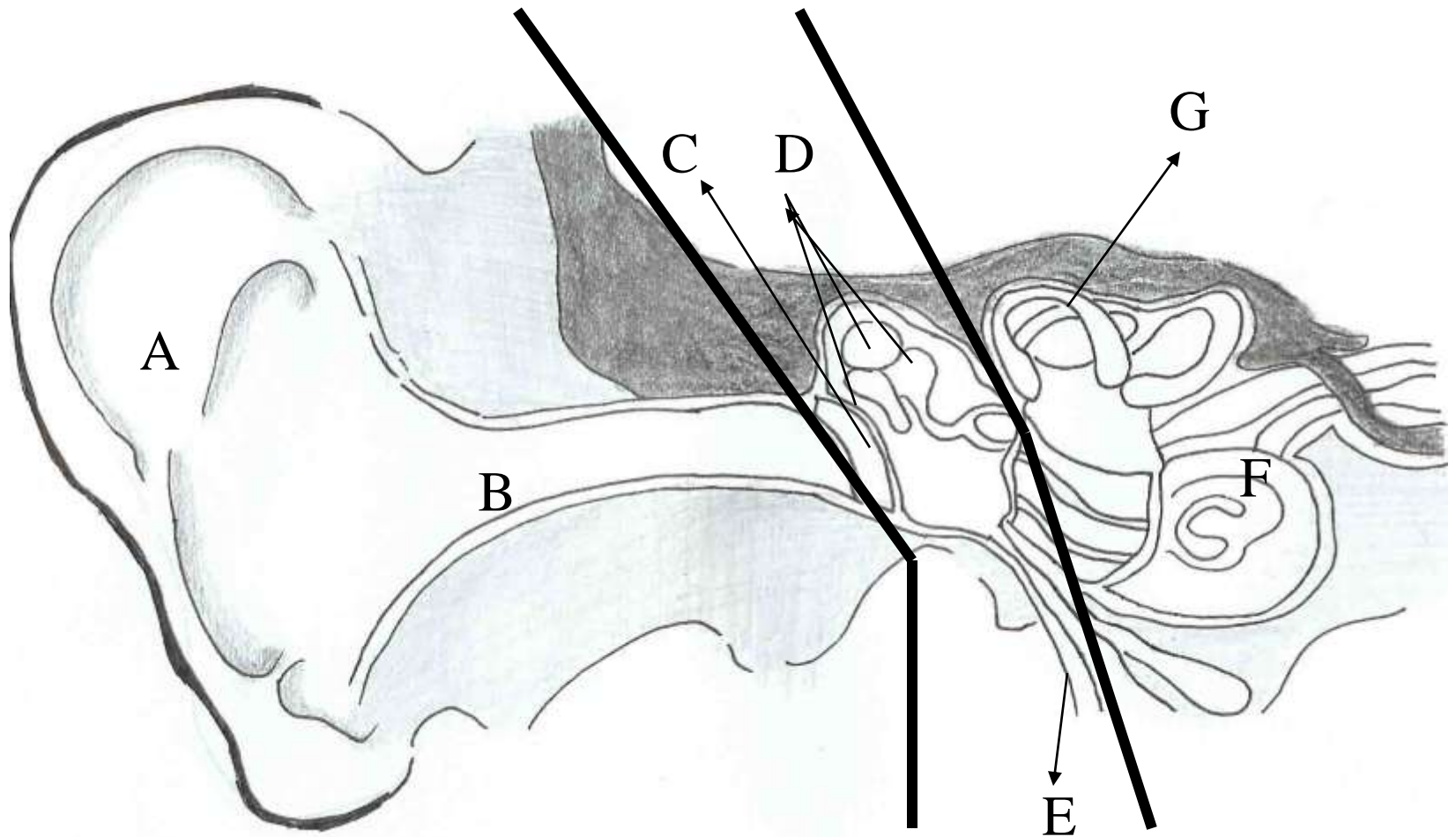




ANATOMY AND PHYSIOLOGY OF THE EAR

Better Hearing Philippines Inc.

PARTS OF THE EAR



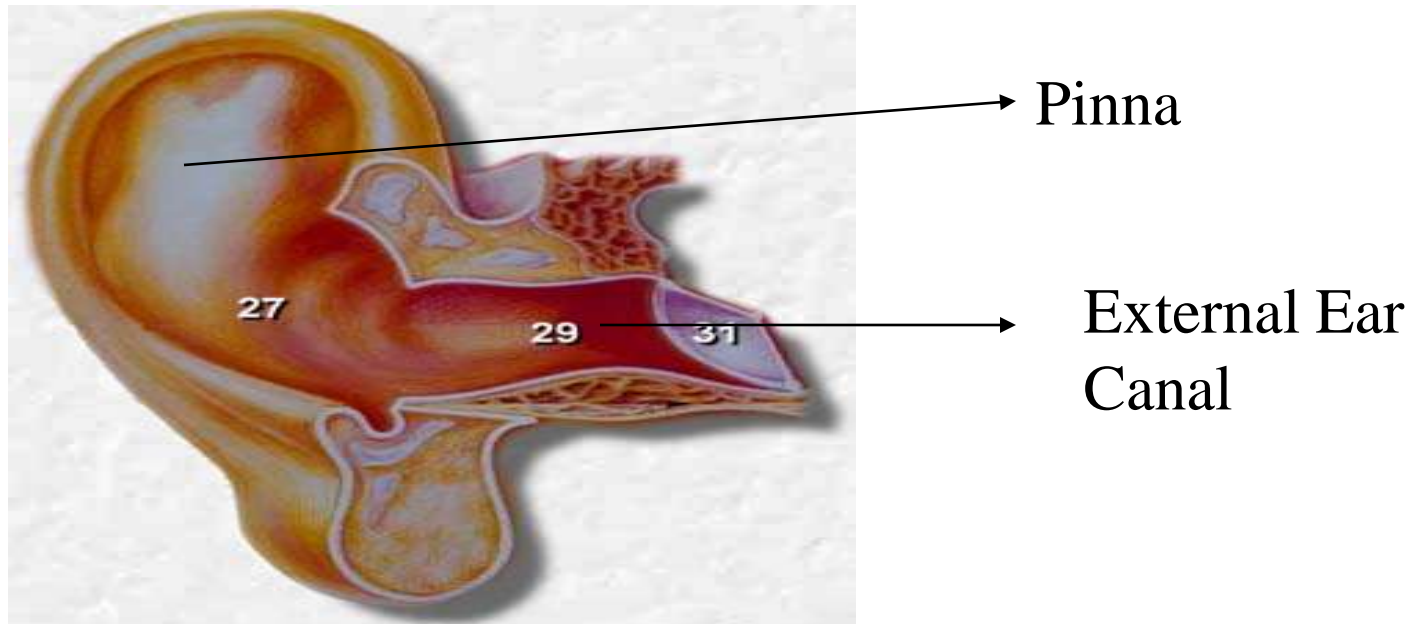
PARTS OF THE EAR

- A. Pinna
- B. External Ear Canal
- C. Tympanic Membrane
- D. Ossicular Chain
- E. Eustachian Tube
- F. Cochlea
- G. Vestibular Organ

EXTERNAL EAR

1. Pinna

- Sound Collector
- Boosts acoustic pressure



EXTERNAL EAR

2. External Auditory Canal

- Channel through which sound is directed
- Protection against physical trauma and entry of foreign bodies
- Protects the tympanic membrane and ossicles
- Permit sound waves to reach the tympanic membrane

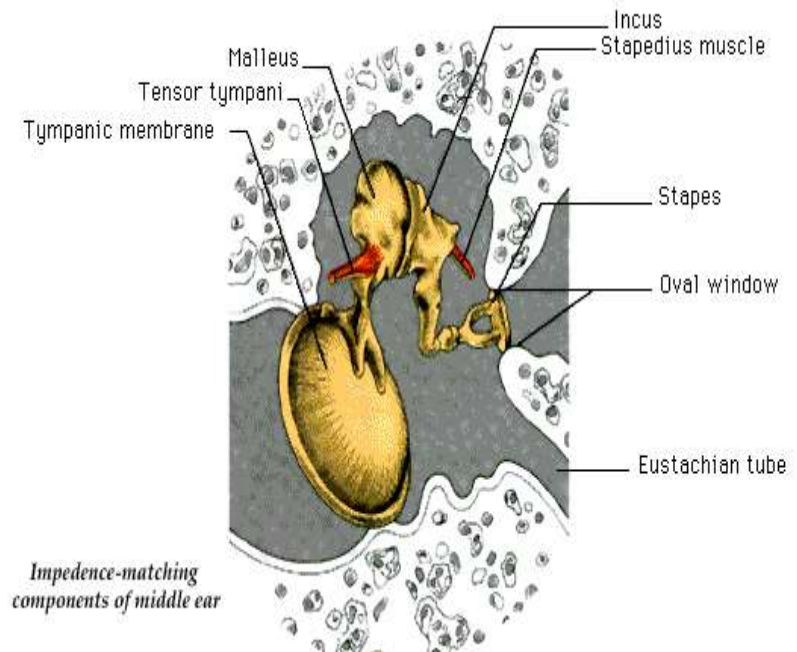
MIDDLE EAR

1. Ear Drum or Tympanic Membrane

- Absorbs the sound waves and directs it to the ossicular chain

2. Ossicular Chain

- Malleus (Hammer)
- Incus (Anvil)
- Stapes (Stirrup)



MIDDLE EAR

Cont. Ossicular Chain

- Vibrates as a unit
- Converts sound energy into mechanical energy

3. Eustachian Tube

- Occasional opening of the Eustachian tube is necessary to ventilate and equalize pressure in the middle ear.

INNER EAR

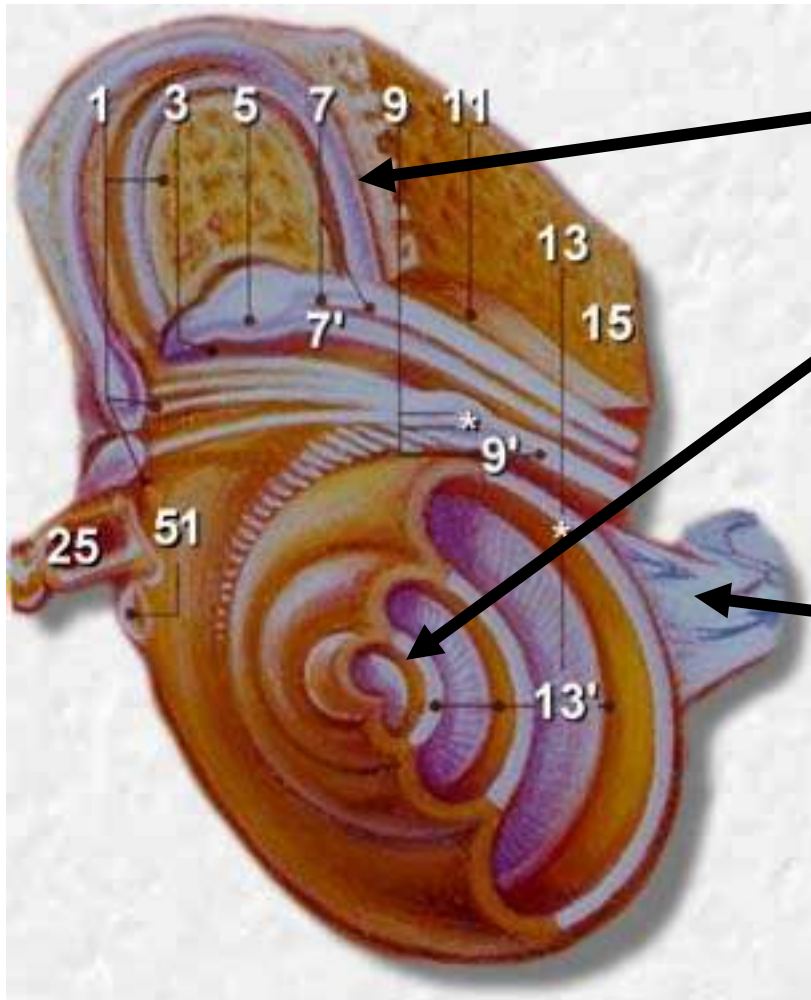
1. Cochlea

- Where vibration is converted to nerve pulses or electrical impulses

2. Vestibular Apparatus

- responsible for balance functions

INNER EAR

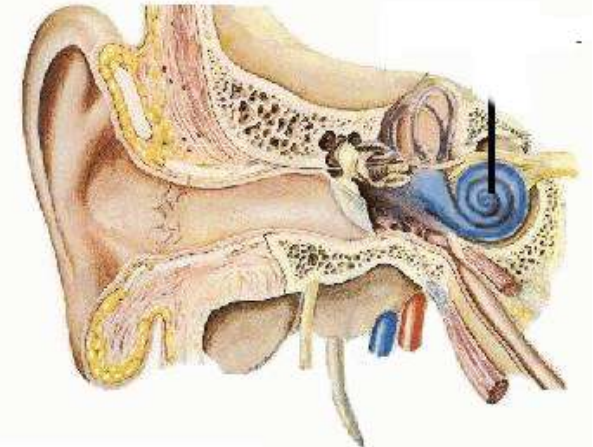
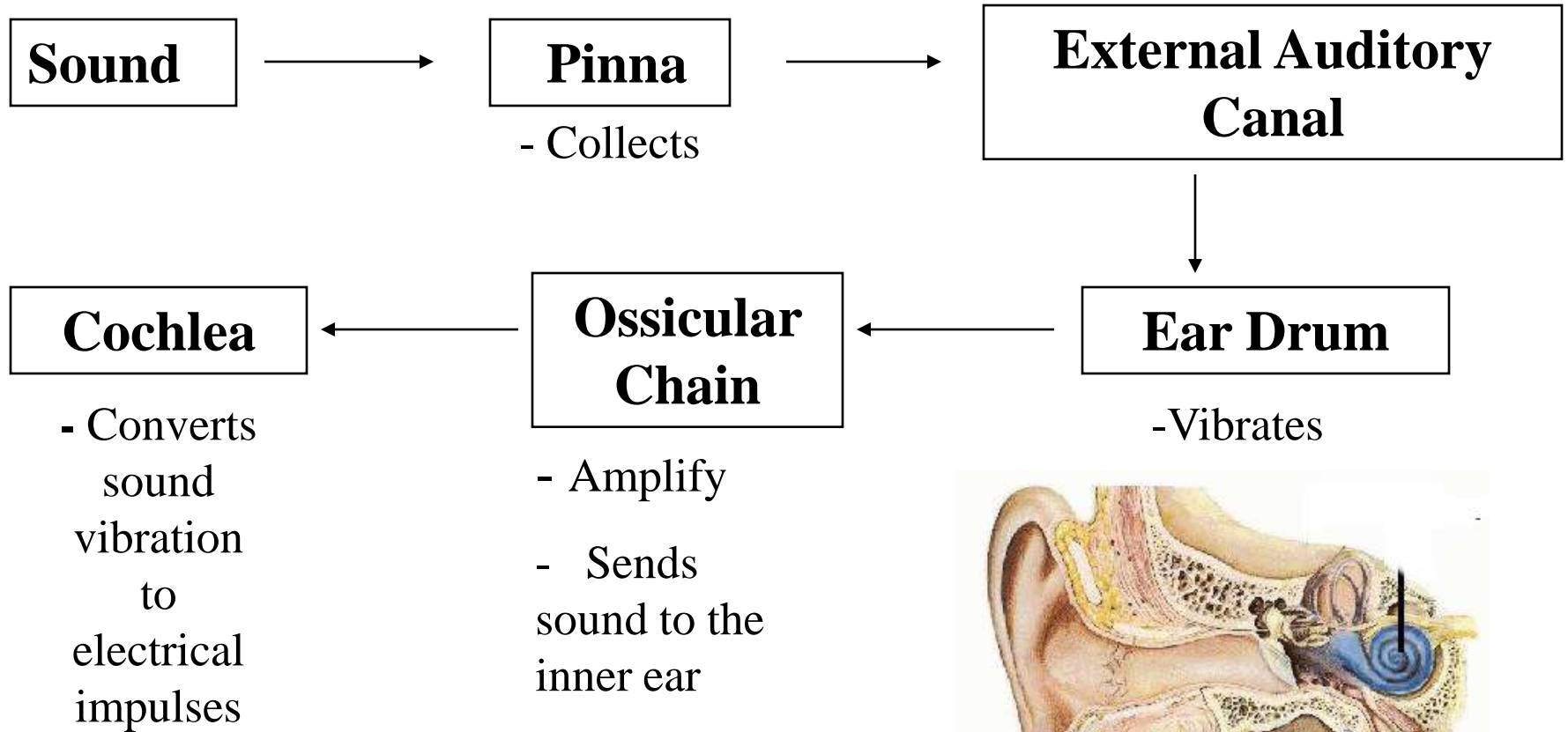


Labyrinth

Cochlea

Auditory Nerve

MECHANISM



Cochlea



**Auditory
Nerve**



**Auditory
Cortex**

PATHWAYS

1. Air Conduction

- Conduction of sound through the ear canal
- Through head phones

2. Bone Conduction

- Conduction of sound directly to the inner ear through the skull
- Through bone vibrator