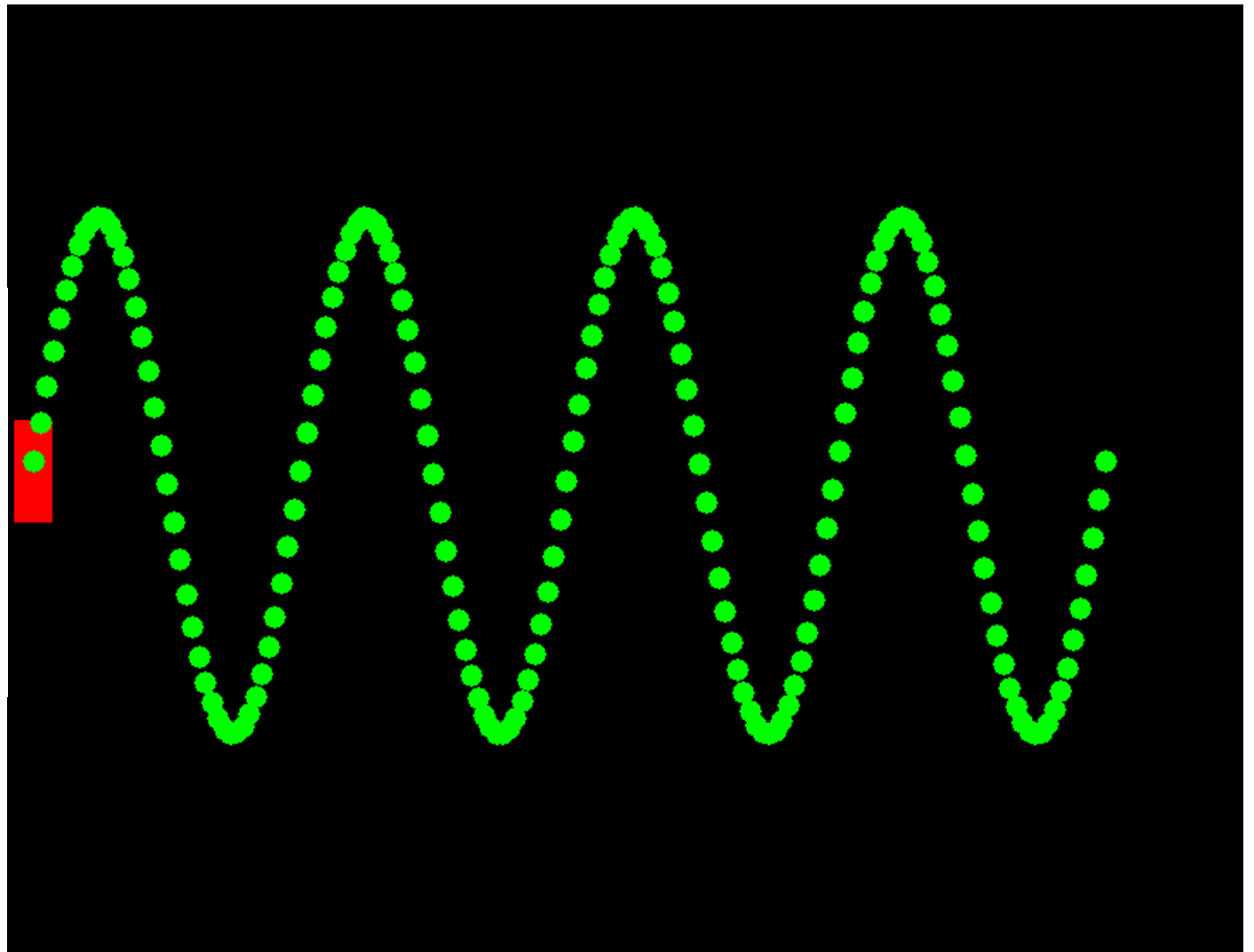


Hearing Conservation



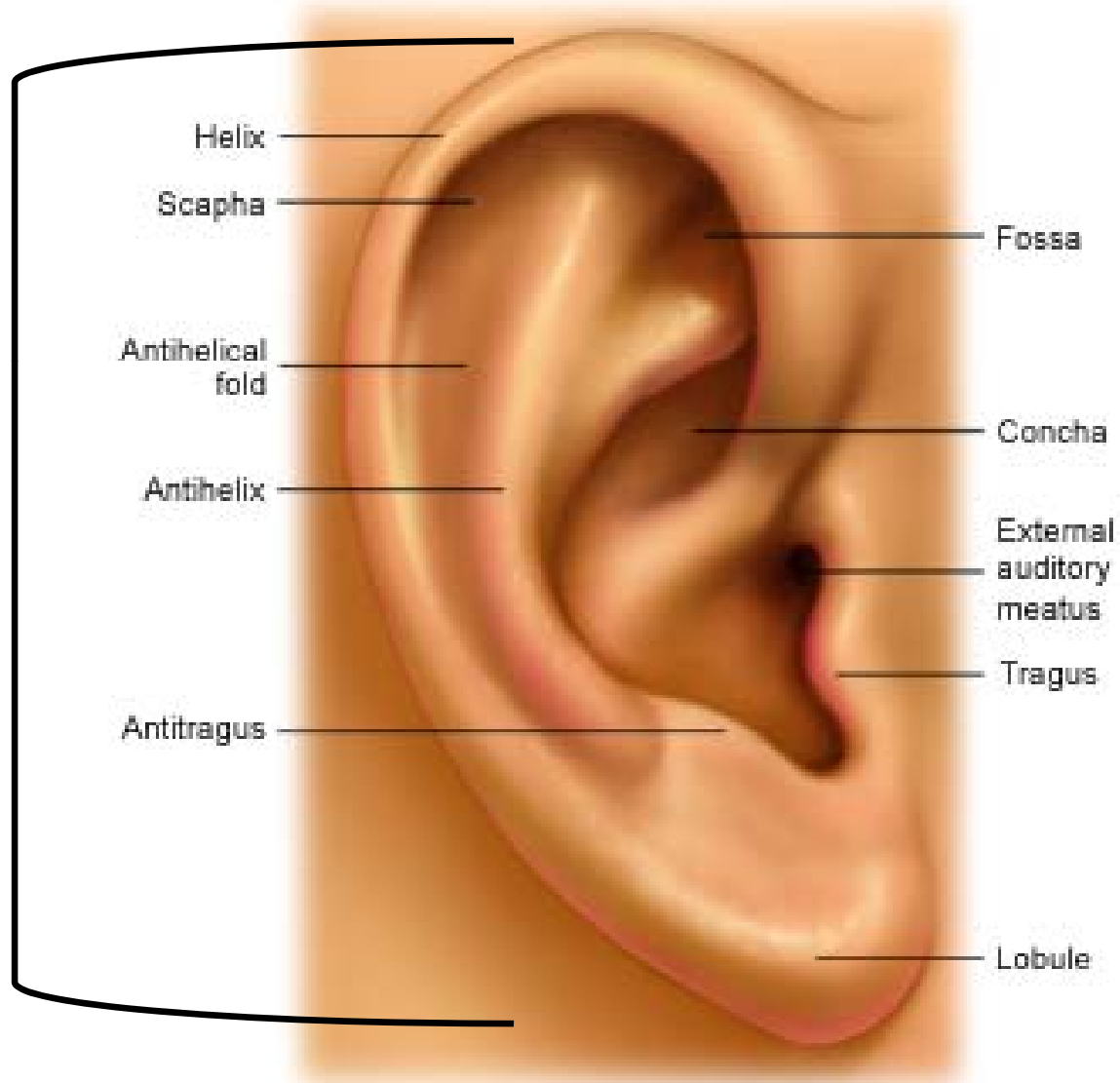
University of South Florida
Audiology

Sound

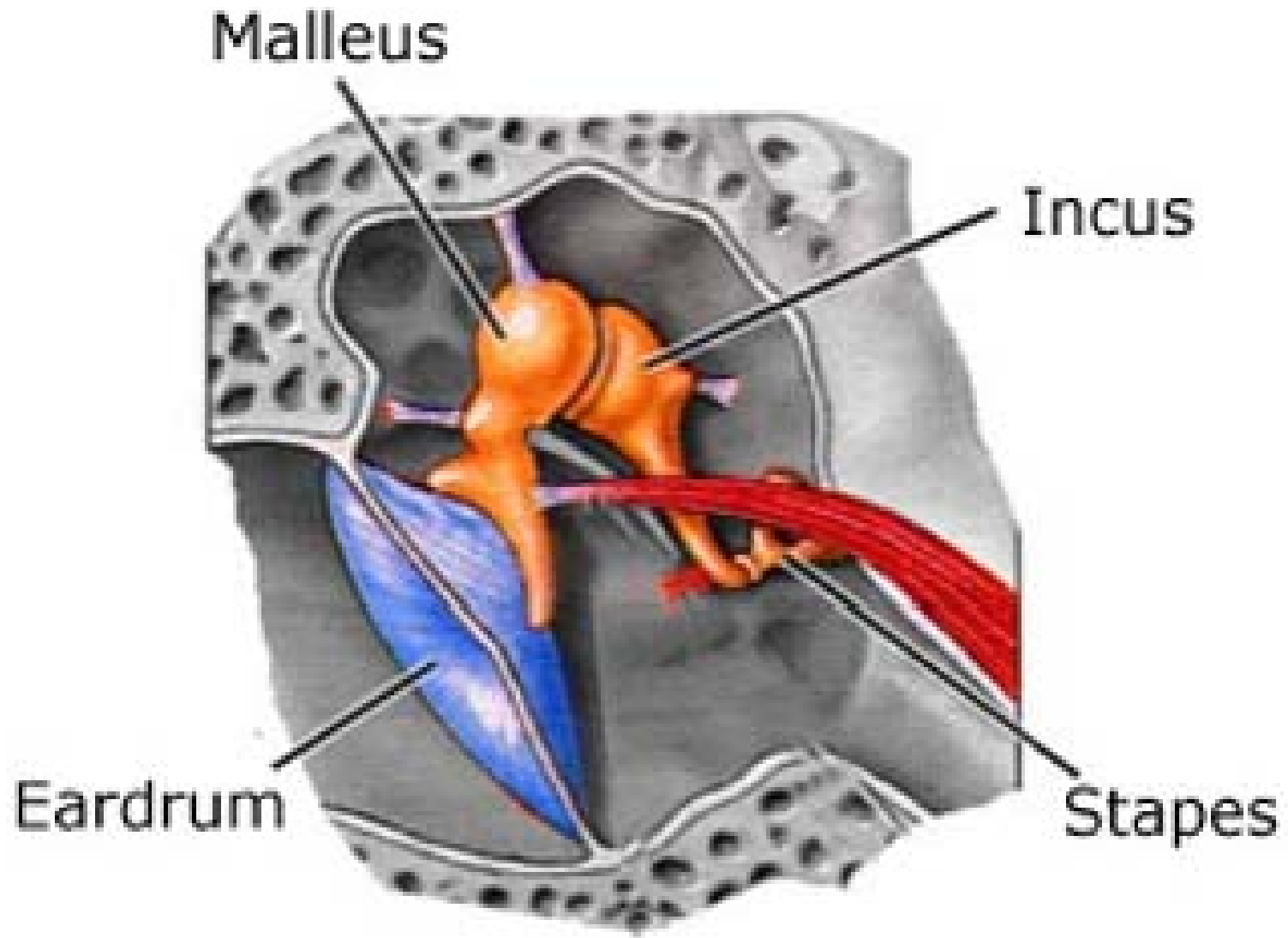


Outer Ear

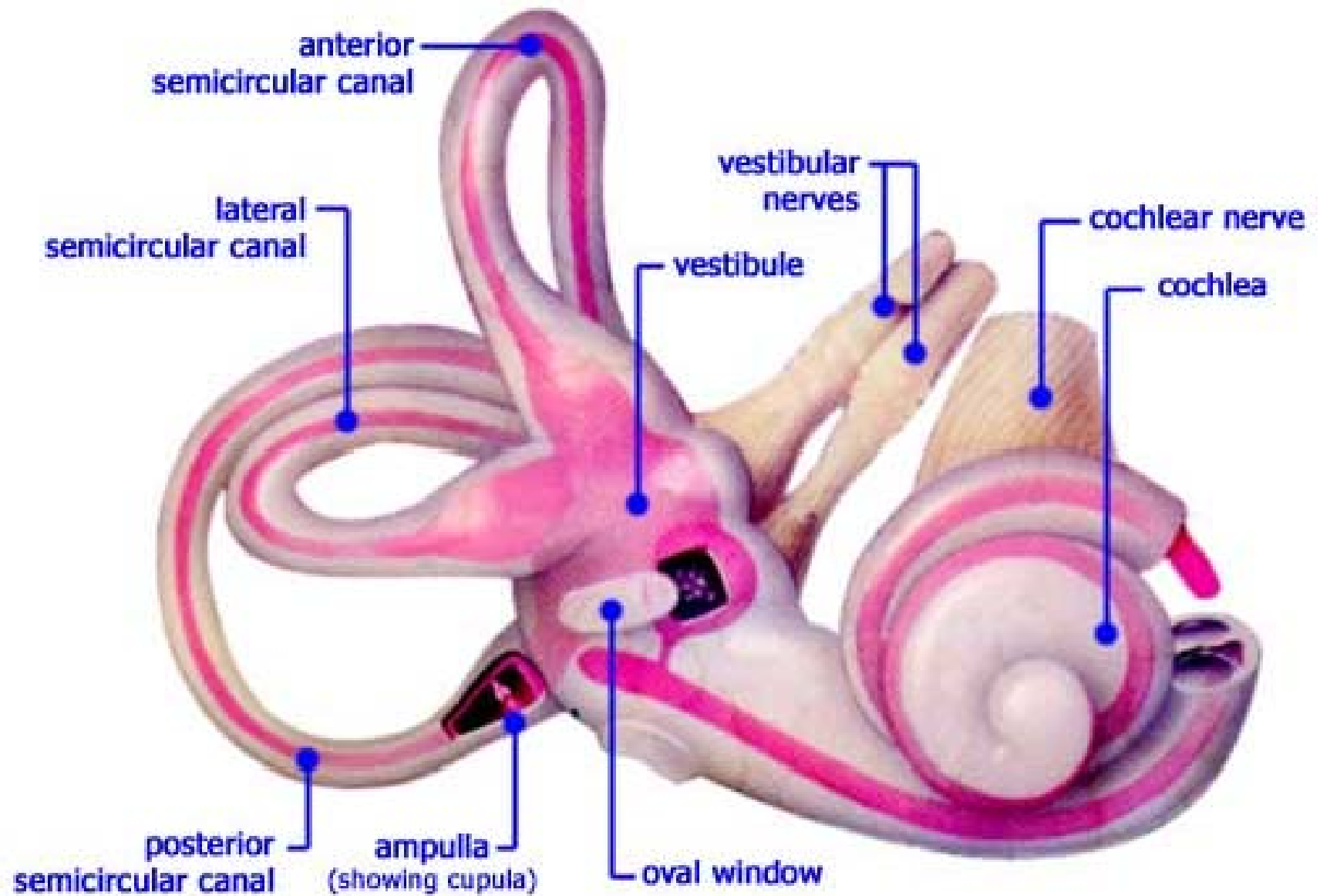
Pinna



Middle Ear

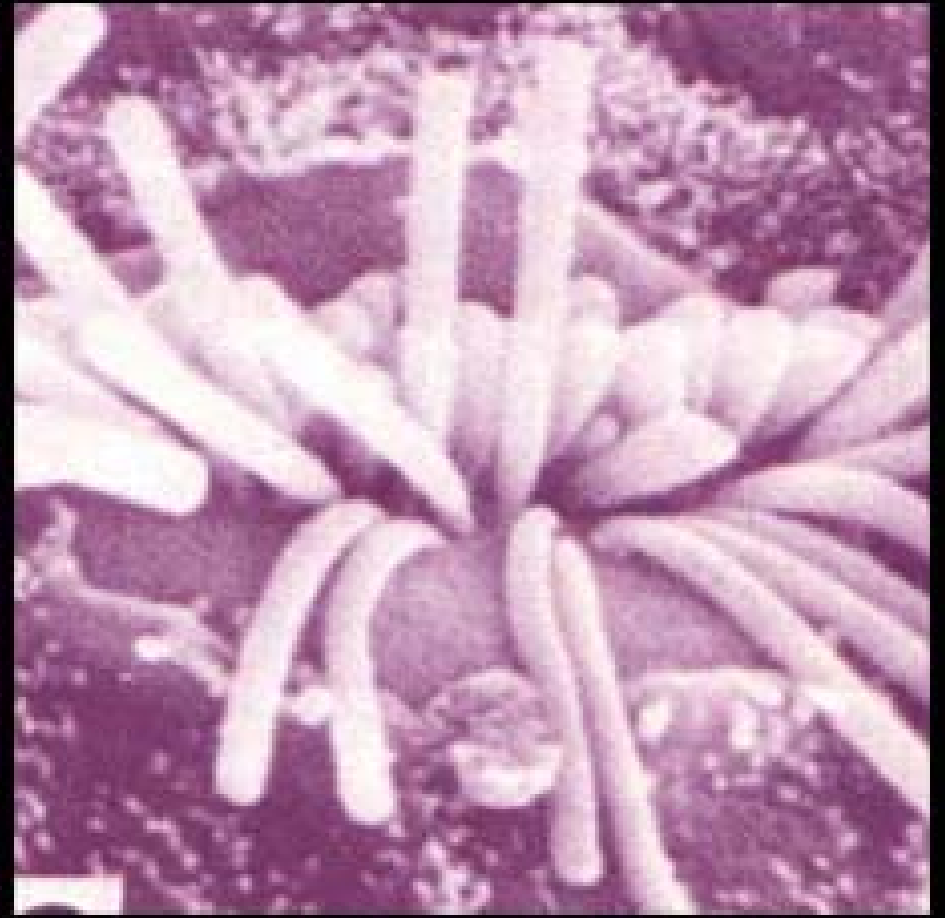
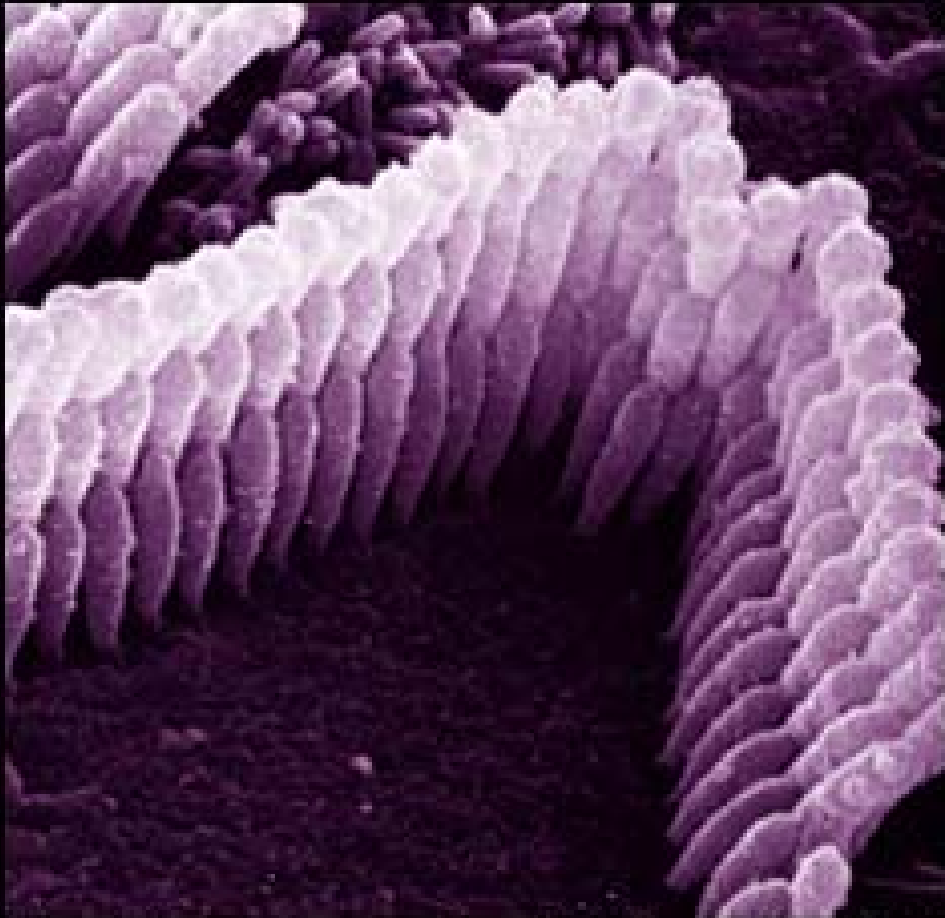


Inner Ear



Hair Cells

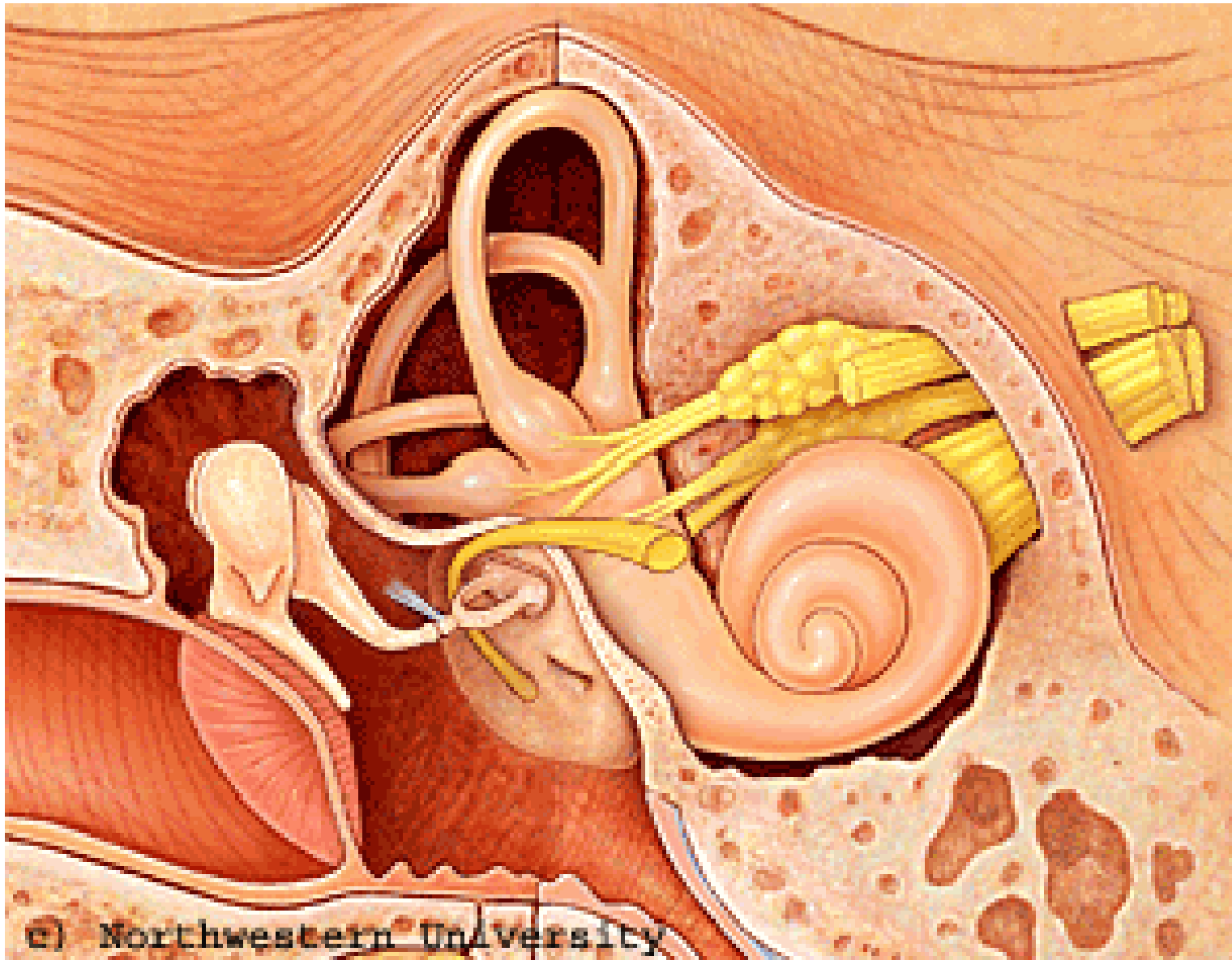
Hair Cells (Stereocilia) Under Magnification



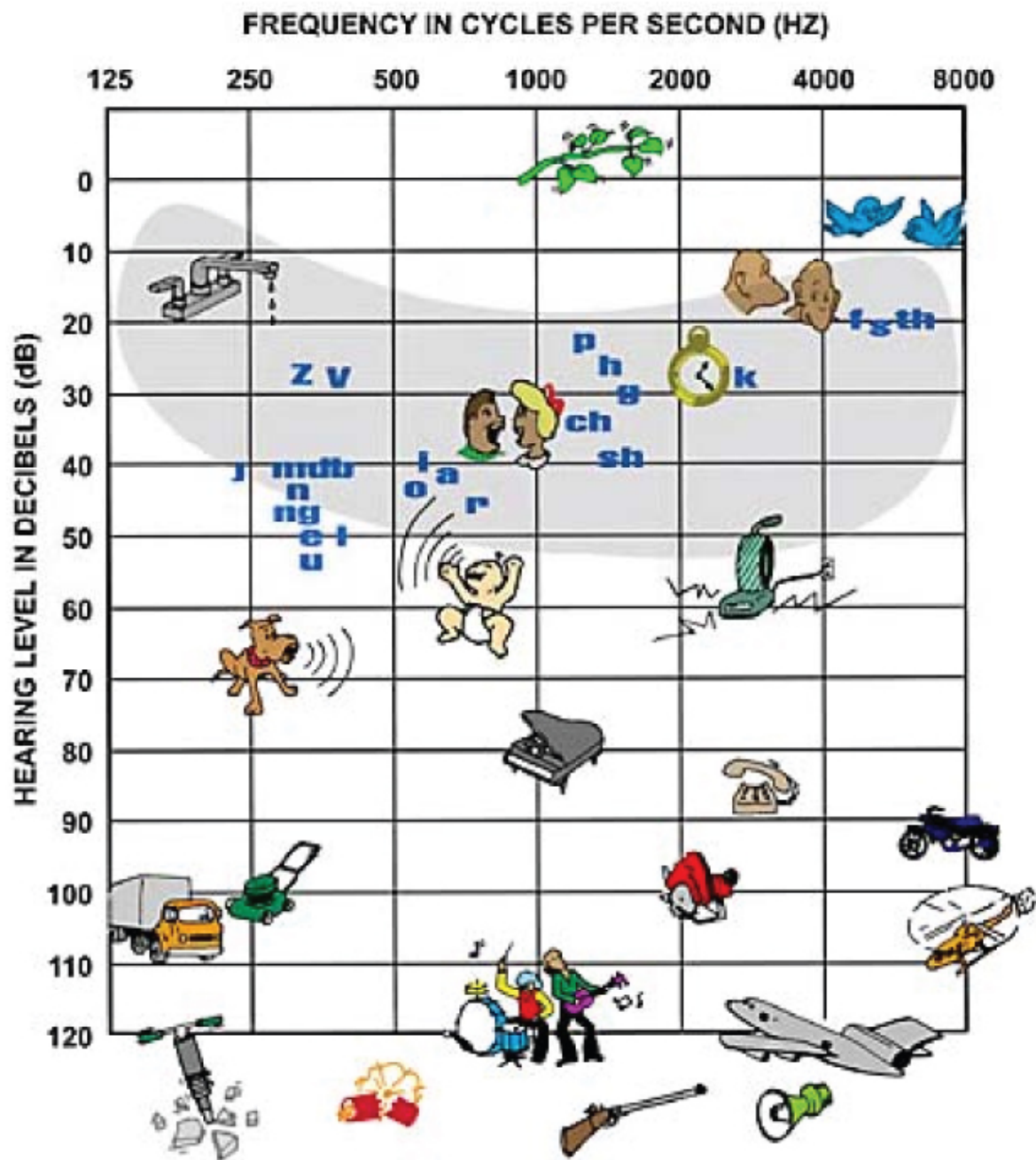
Healthy Sample (Side View)

Damaged Sample (Top View)

How We Hear



AUDIOGRAM OF FAMILIAR SOUNDS



Noise Thermometer

Weakest Sound Heard
Whisper
Normal Conversation
Ringing Telephone
Power Lawn Mower
Belt Sander
Tractor
Hand Drill
Impact Wrench
Bulldozer
Spray Painter
Continuous Miner
Chain Saw
Jackhammer
Ambulance Siren
Jet Engine at Takeoff
12-Gauge Shotgun
Rocket Launch

Exposures > 85 dB
may cause hearing loss



click to start

Maximum Listening Times

- 90 dB – 8 hours (tractor-trailer)
- 95 dB – 4 hours (tractor)
- 100 dB – 2 hours (iPod -medium volume)
- 105 dB – 1 hour (bull dozer)
- 110 dB – 30 minutes (video arcade)
- 115 dB – 15 minutes (rock concert)

Warning Signs of Noise Induced Hearing Loss

- Ears feel full
- Everything sounds muffled
- Difficulty understanding speech
- Ringing (Tinnitus)

Tinnitus



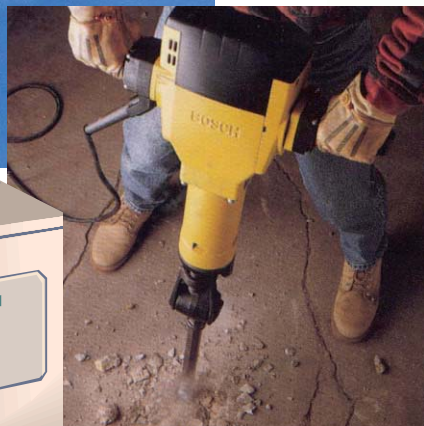
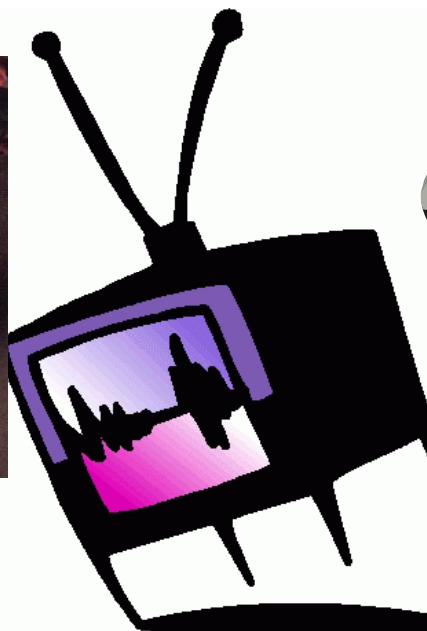
How to Protect Your Hearing



No Hearing Protection?

- Cannot localize.
- Cannot communicate with others.
- Cannot enjoy music.
- Can become very lonely and sad.
- Cannot enjoy our daily lives as much.
- Cannot recognize objects, voices, etc.

Safe or Unsafe



Hey!
It's Up To
YOU!

Hearing
Loss Is
Preventable

