

Thank You for Having Us



The Heuser Hearing Institute

Home of the Louisville Deaf Oral School

Today





THE EDITH & HENRY HEUSER HEARING INSTITUTE

**Hearing Services
Center**

**Hearing Research
Center**

**Louisville Deaf
Oral School**

**Otology
Medical Practice**



What Is an Audiologist?

Visit www.audiology.org to find an audiologist near you or to learn more about a career in audiology.

American Academy of Audiology





www.cartoons4fun.com



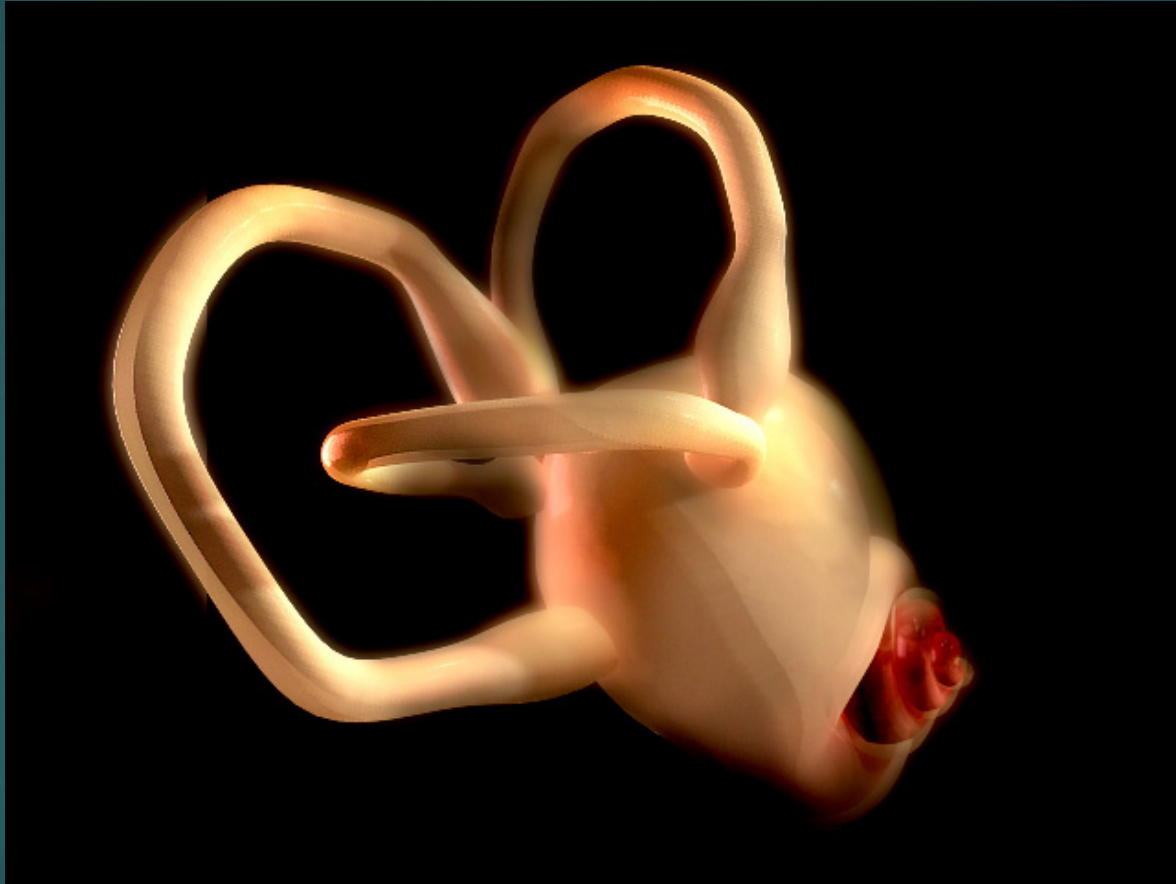
ASHLEY
COOPER

Is there a doctor in the house?

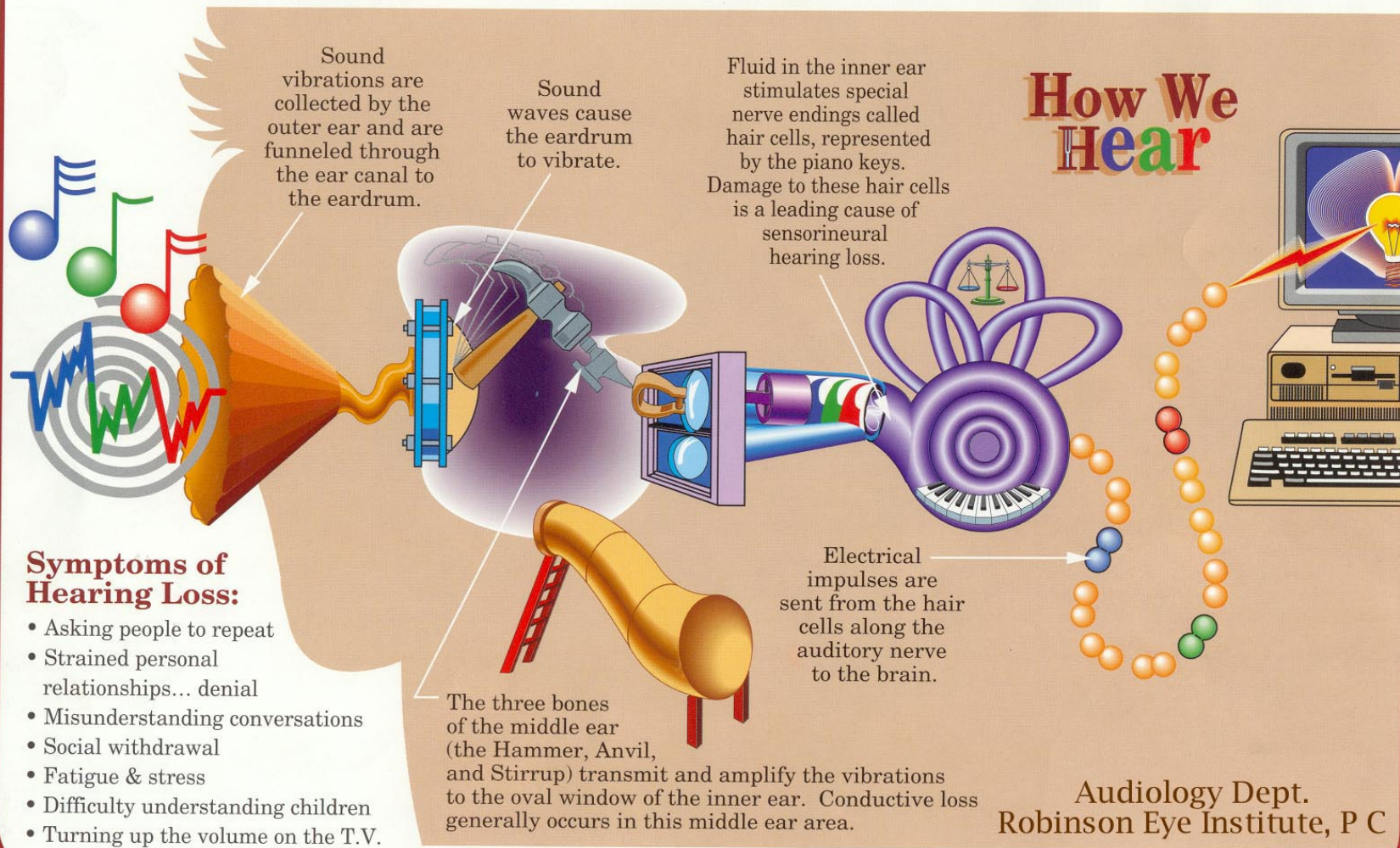




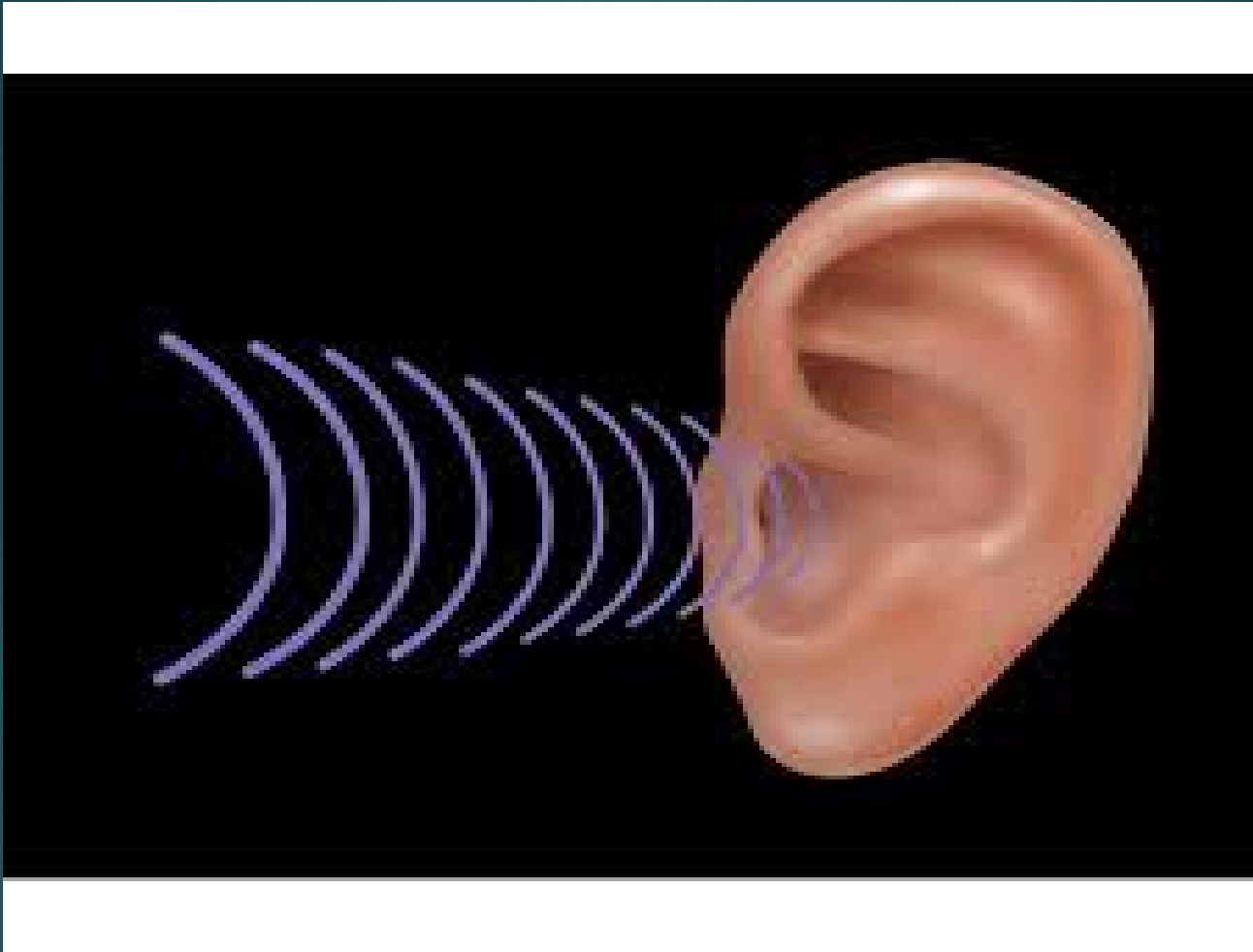
On a Dime



Patient Ear Chart

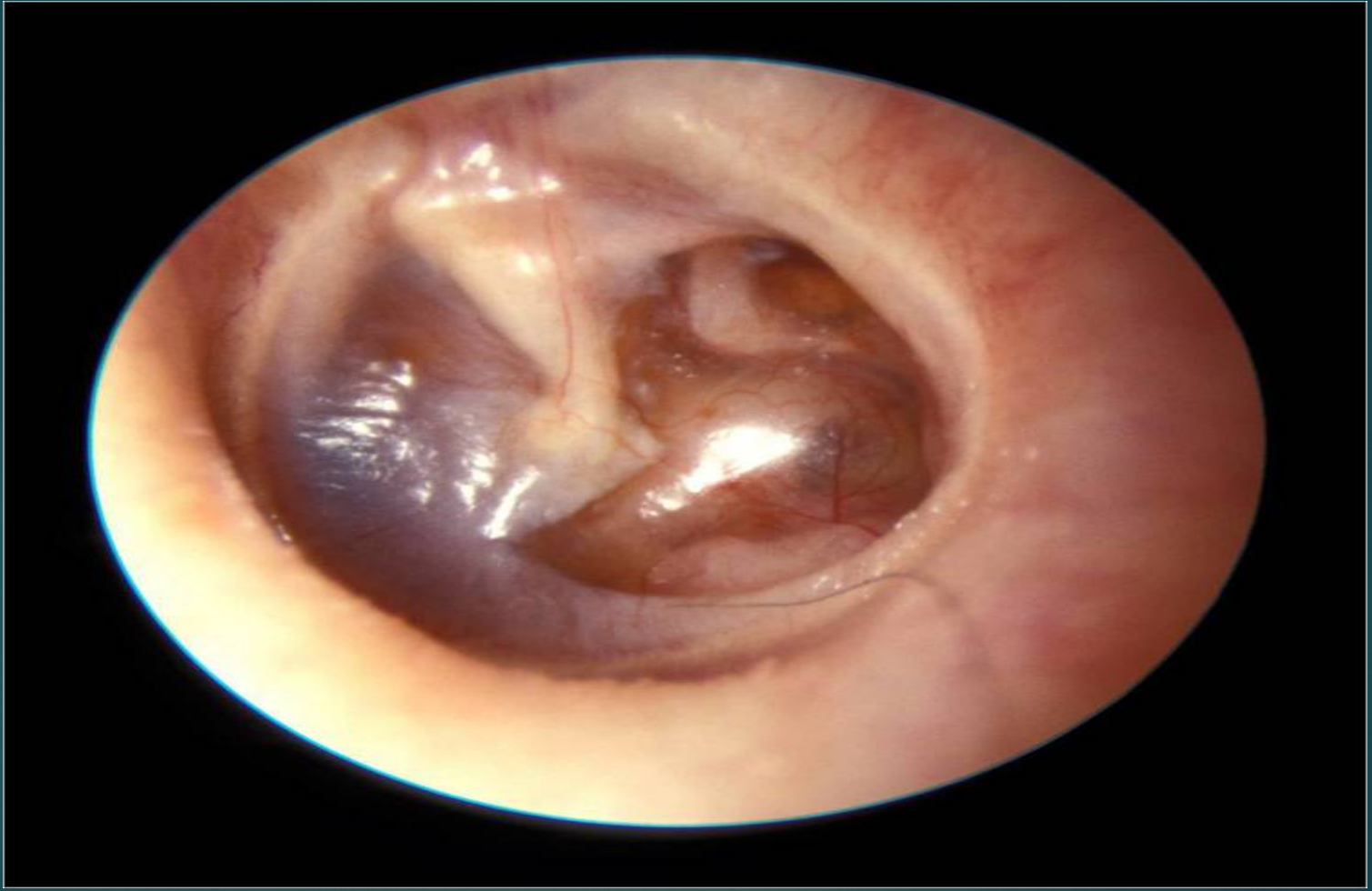


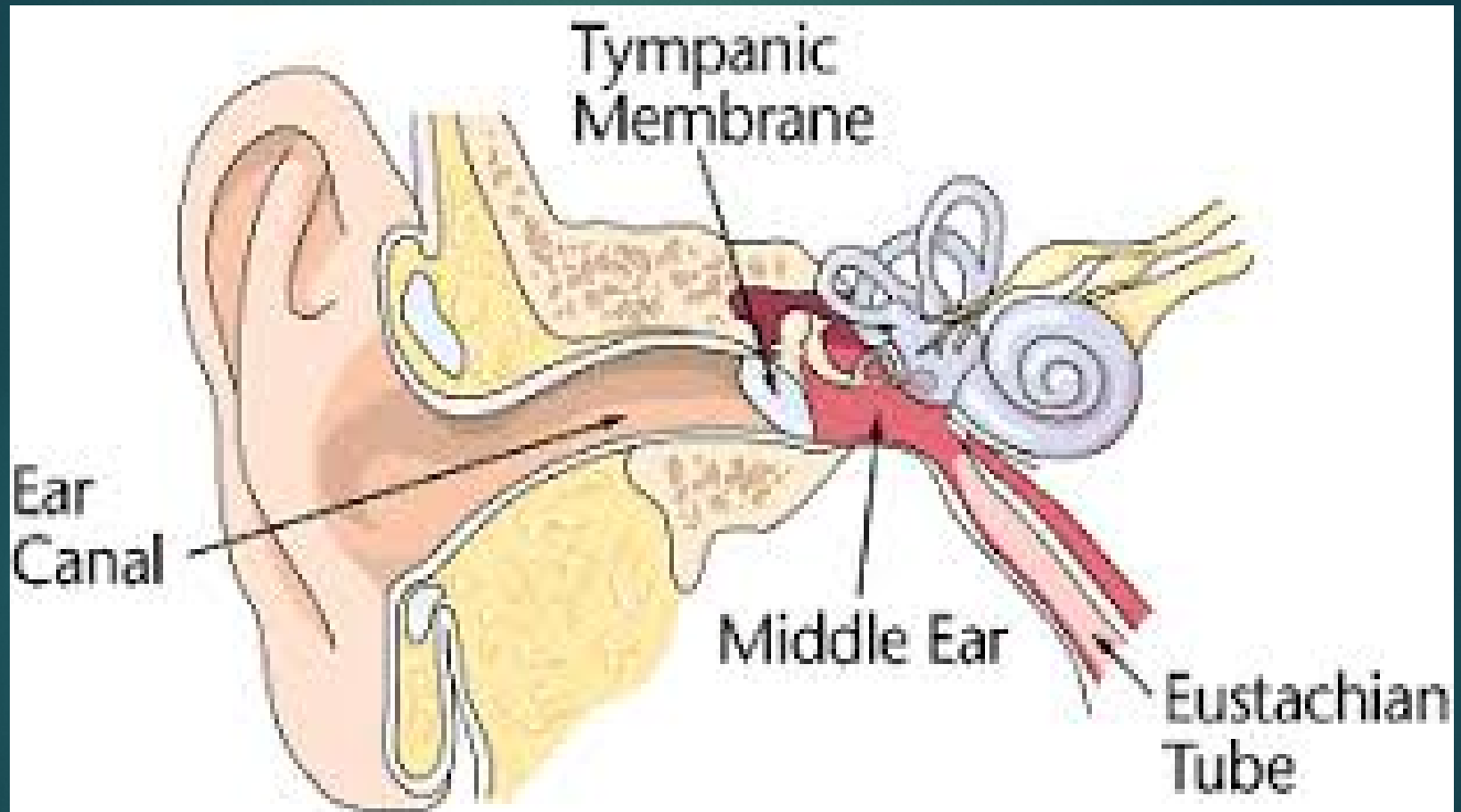
"Have your hearing checked regularly"

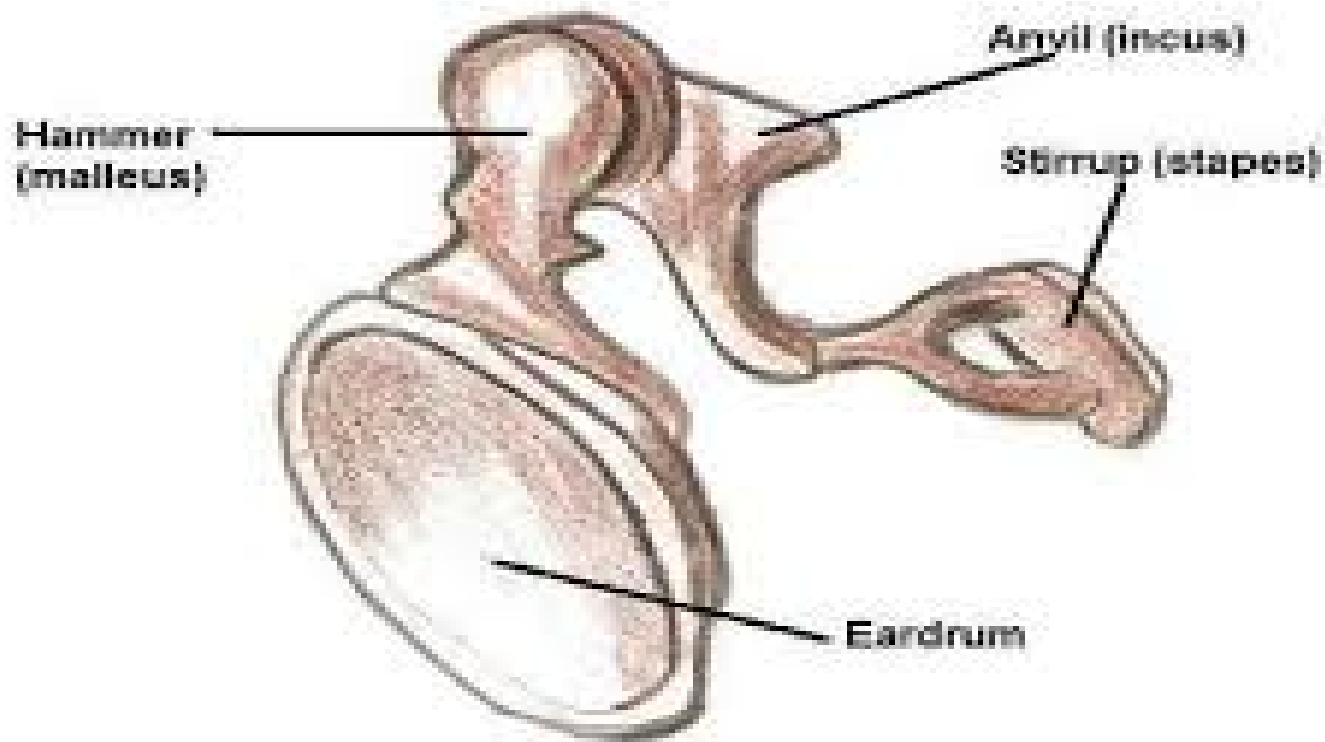






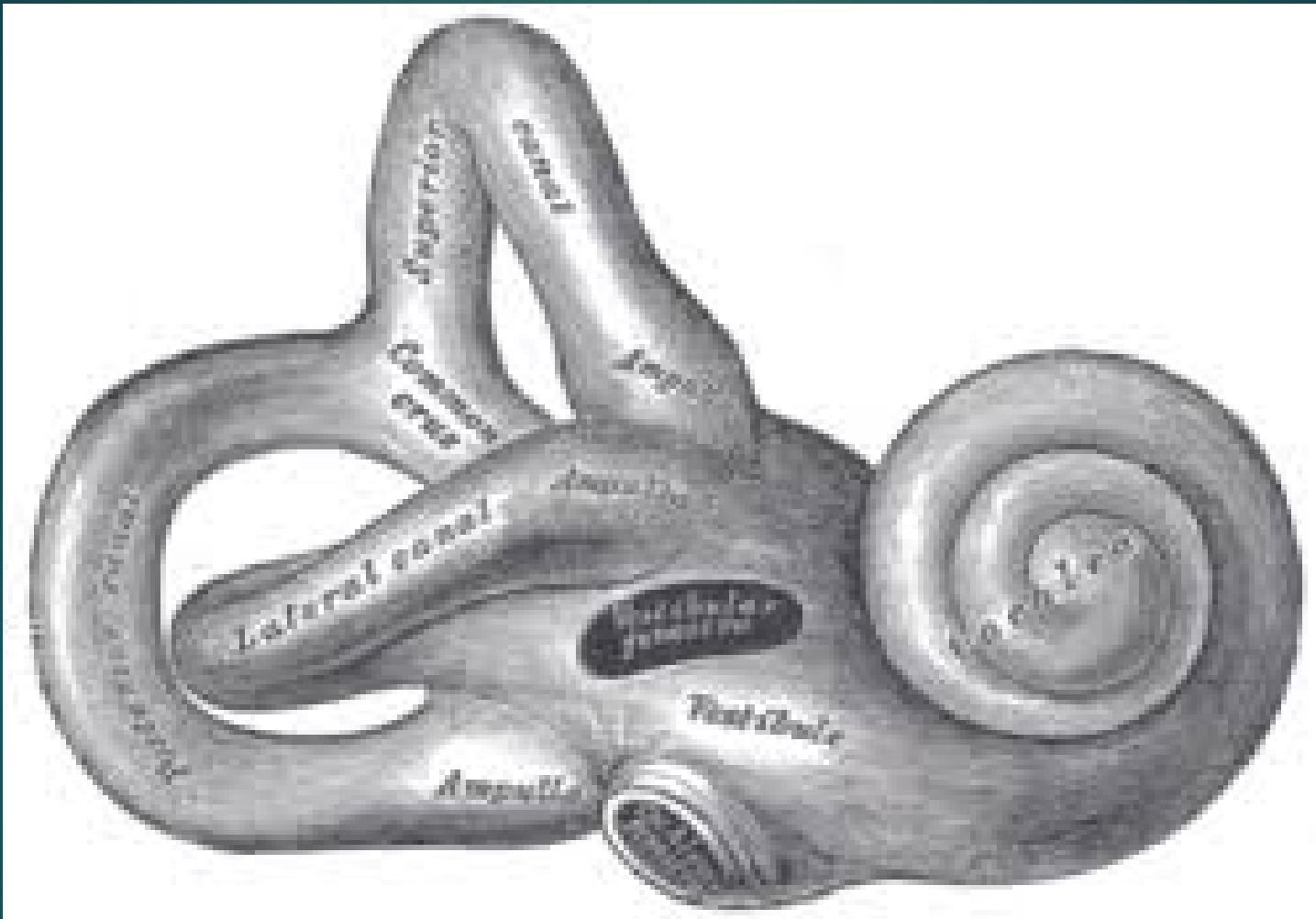




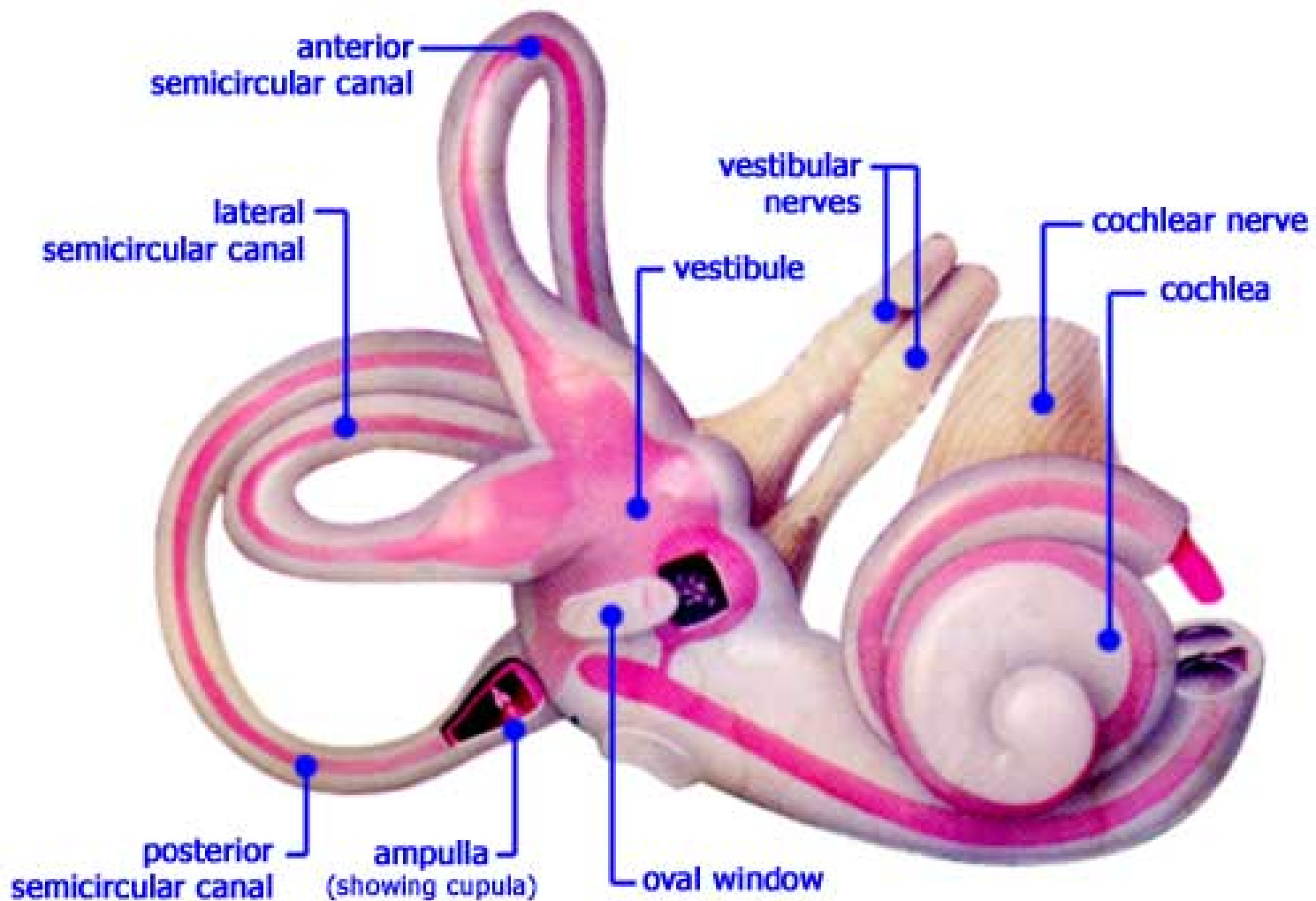


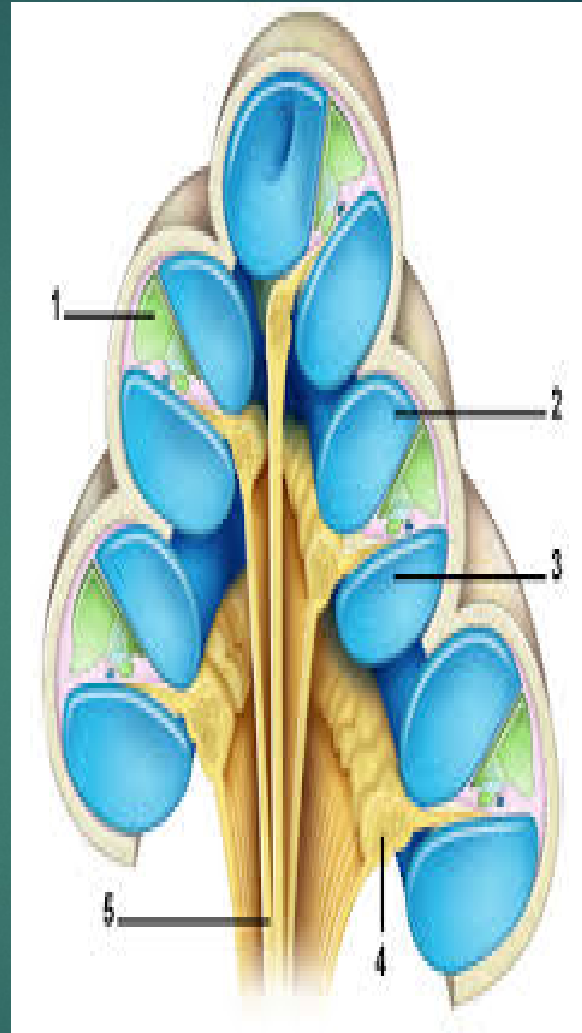
Sketched By Abhishek Sharma

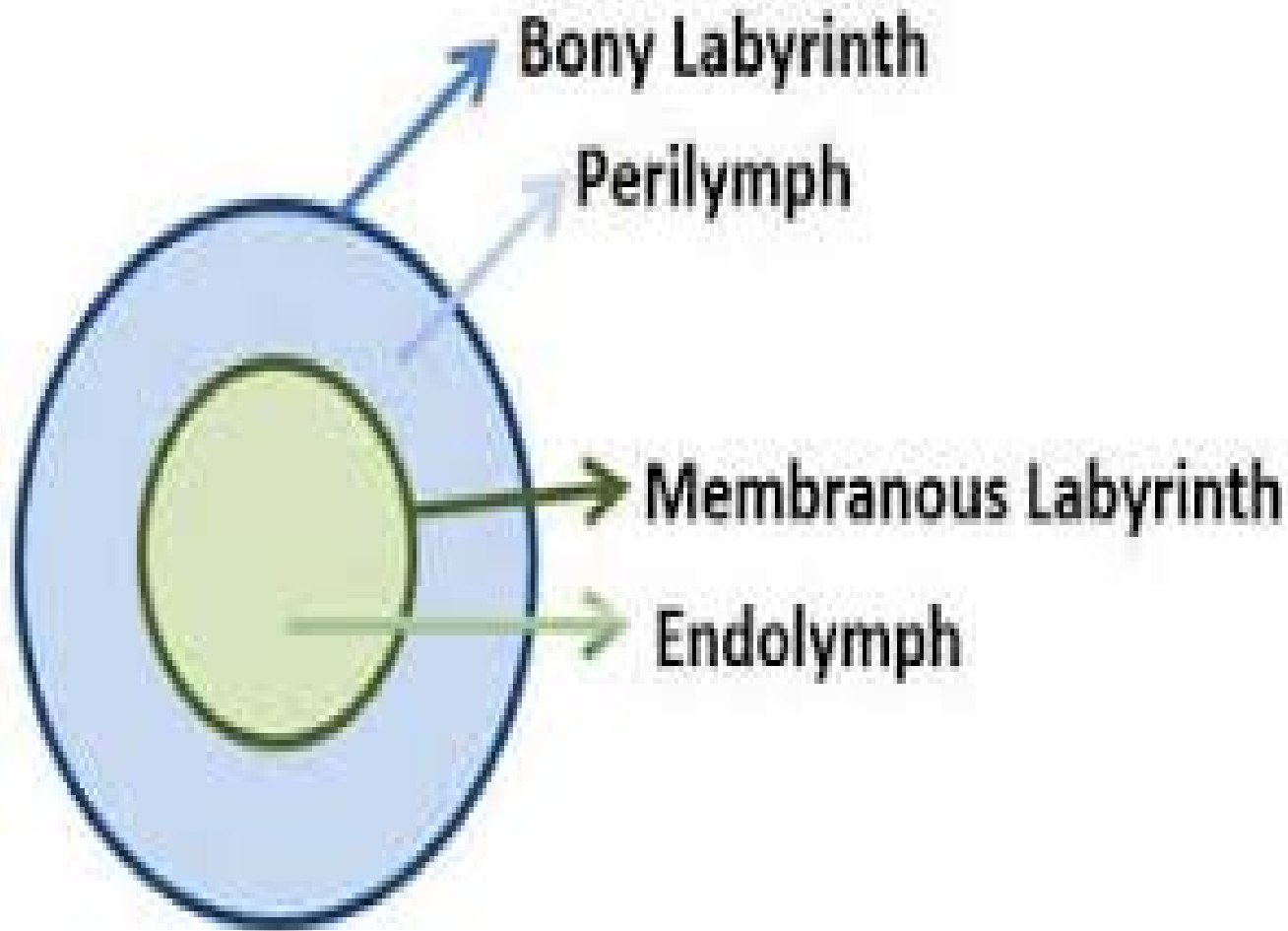


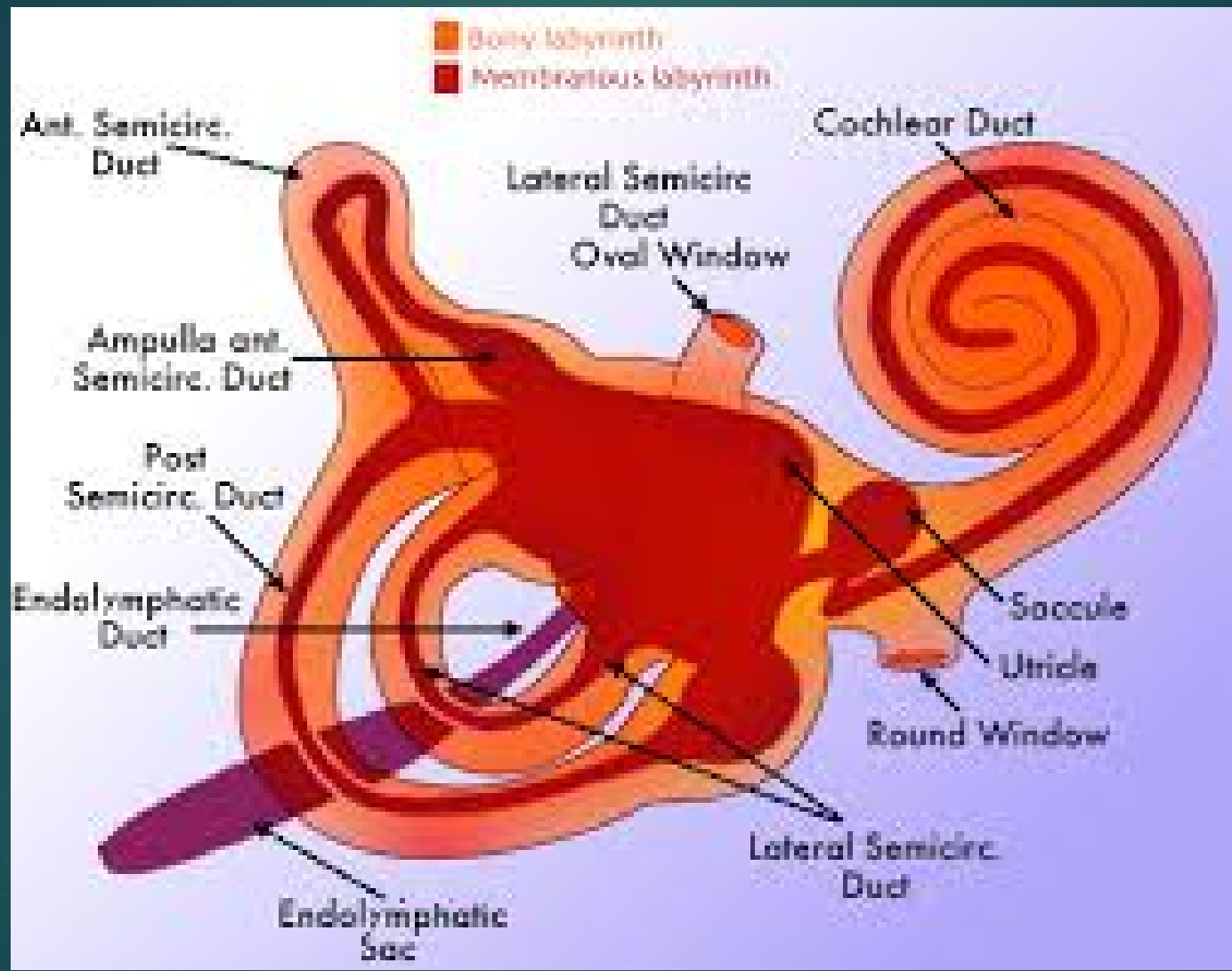


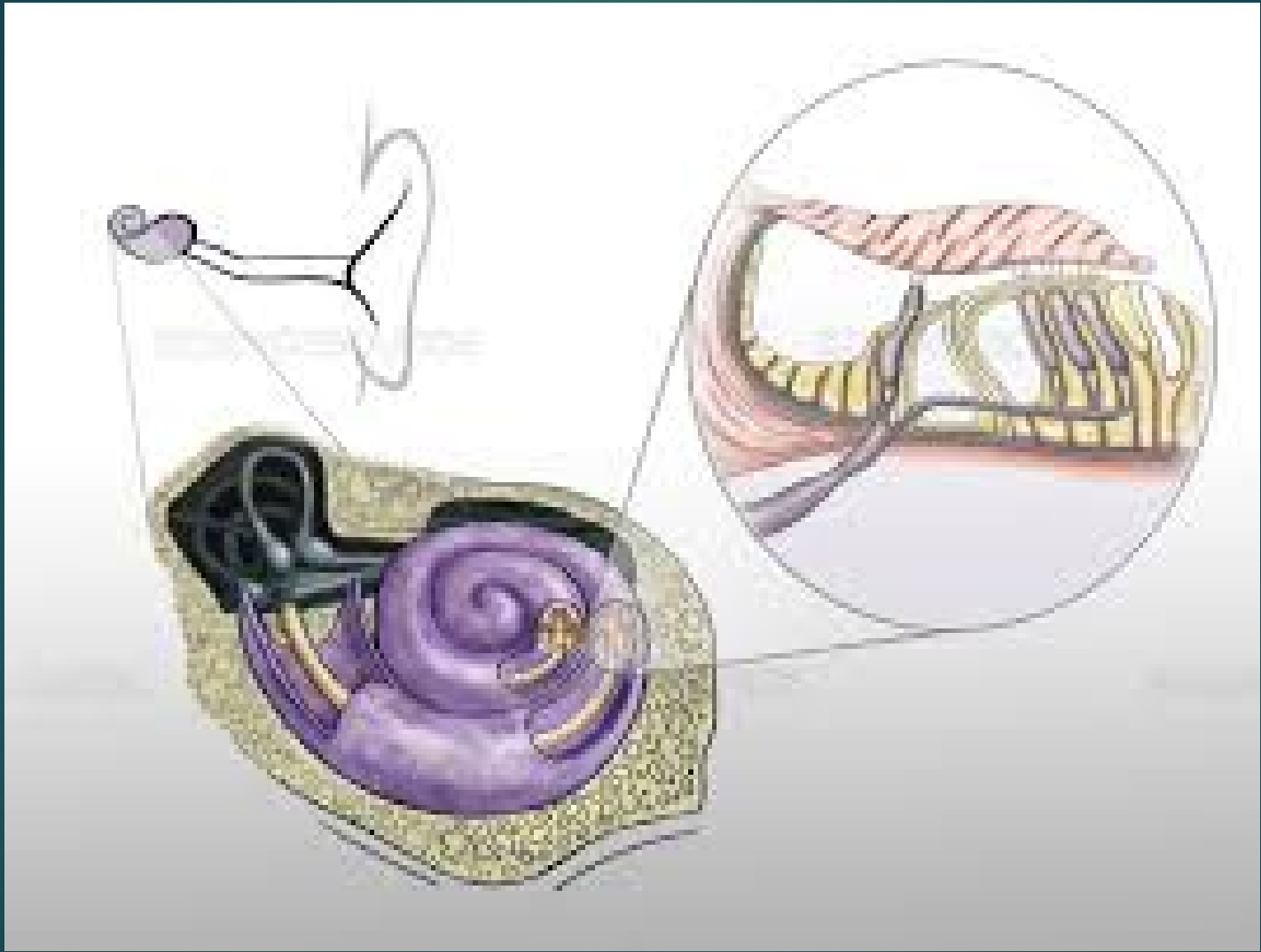
Functional Tests: All Parts

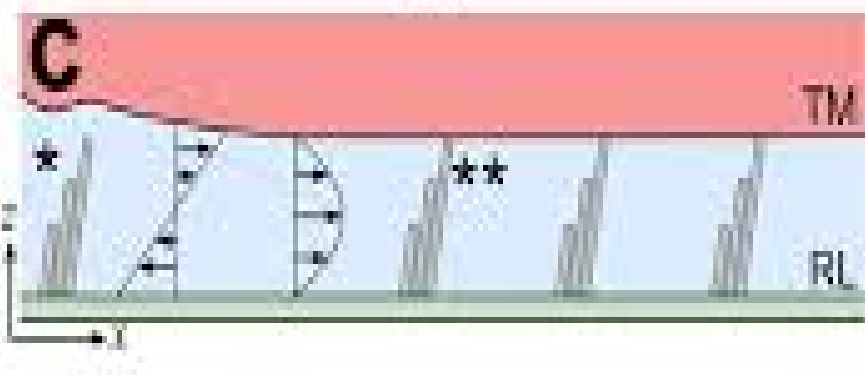
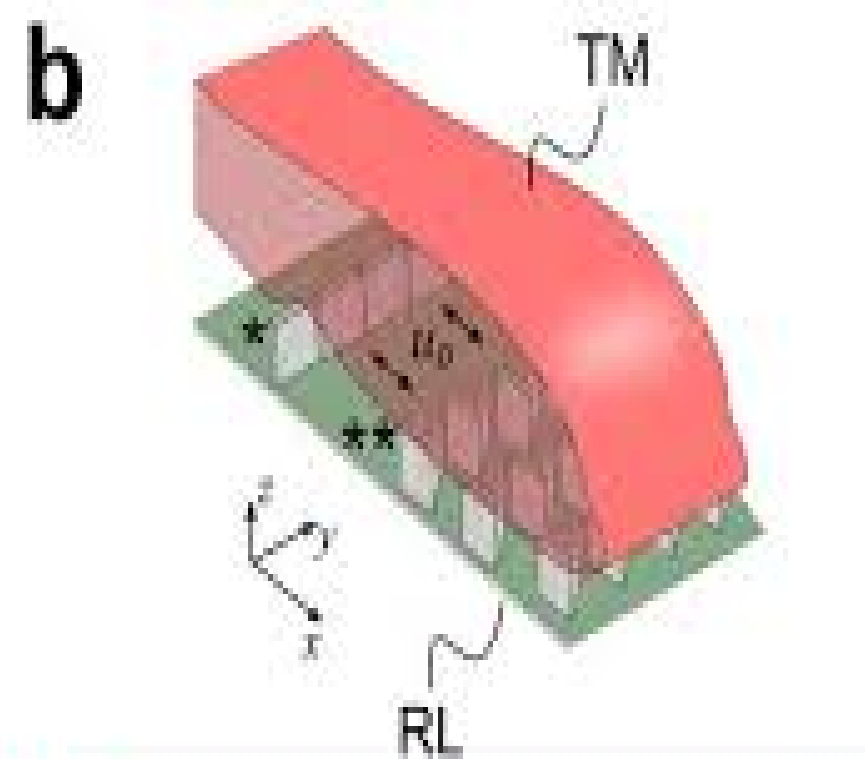
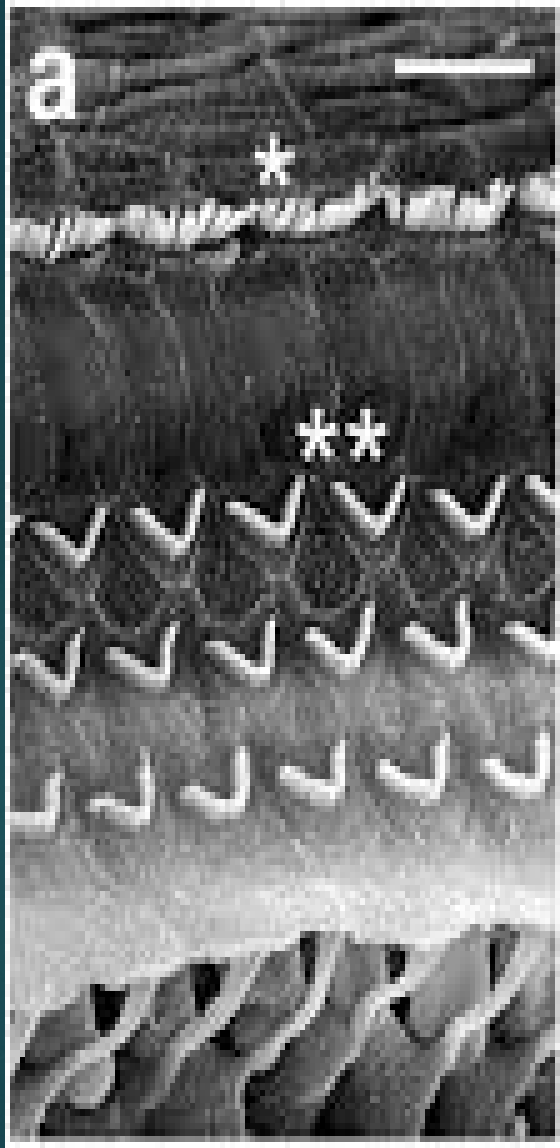


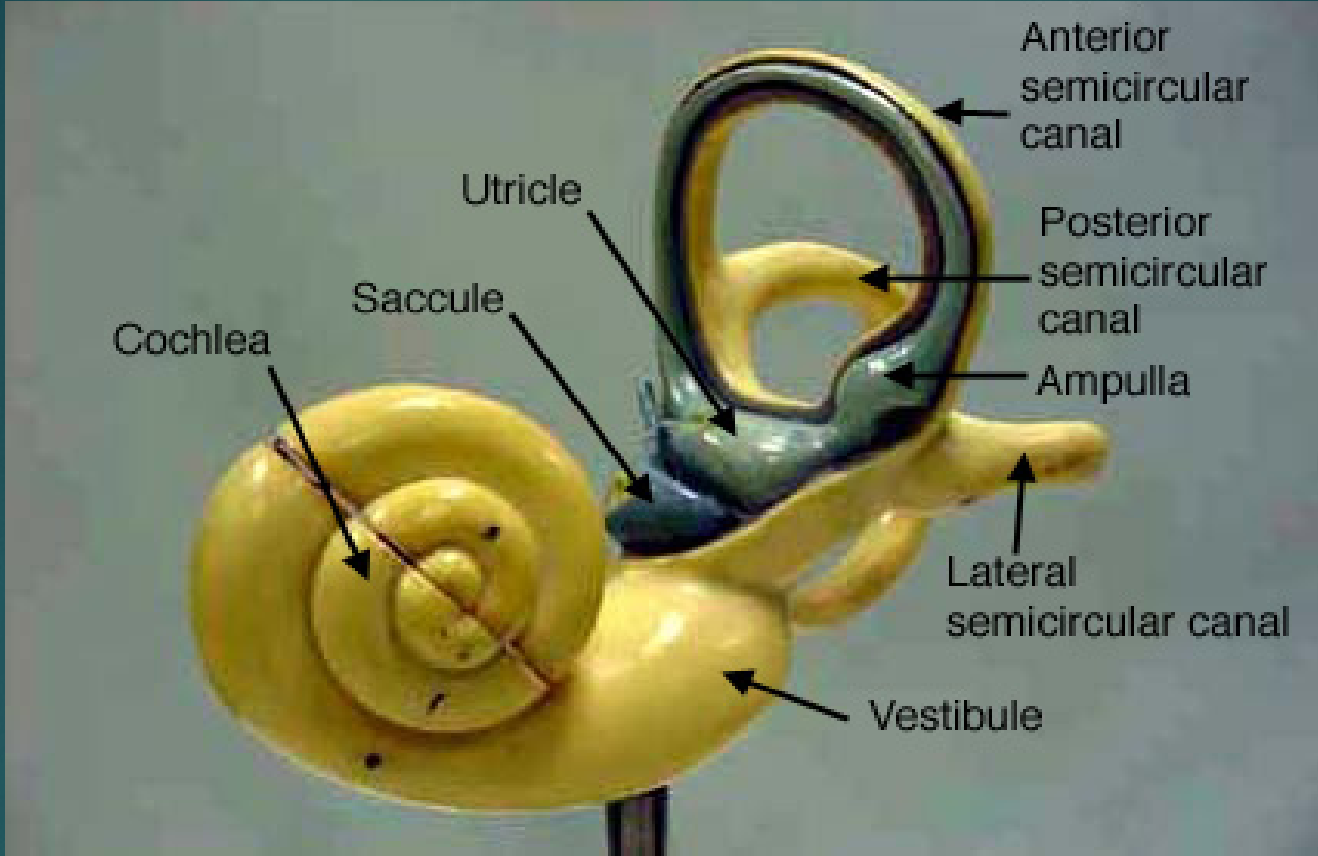




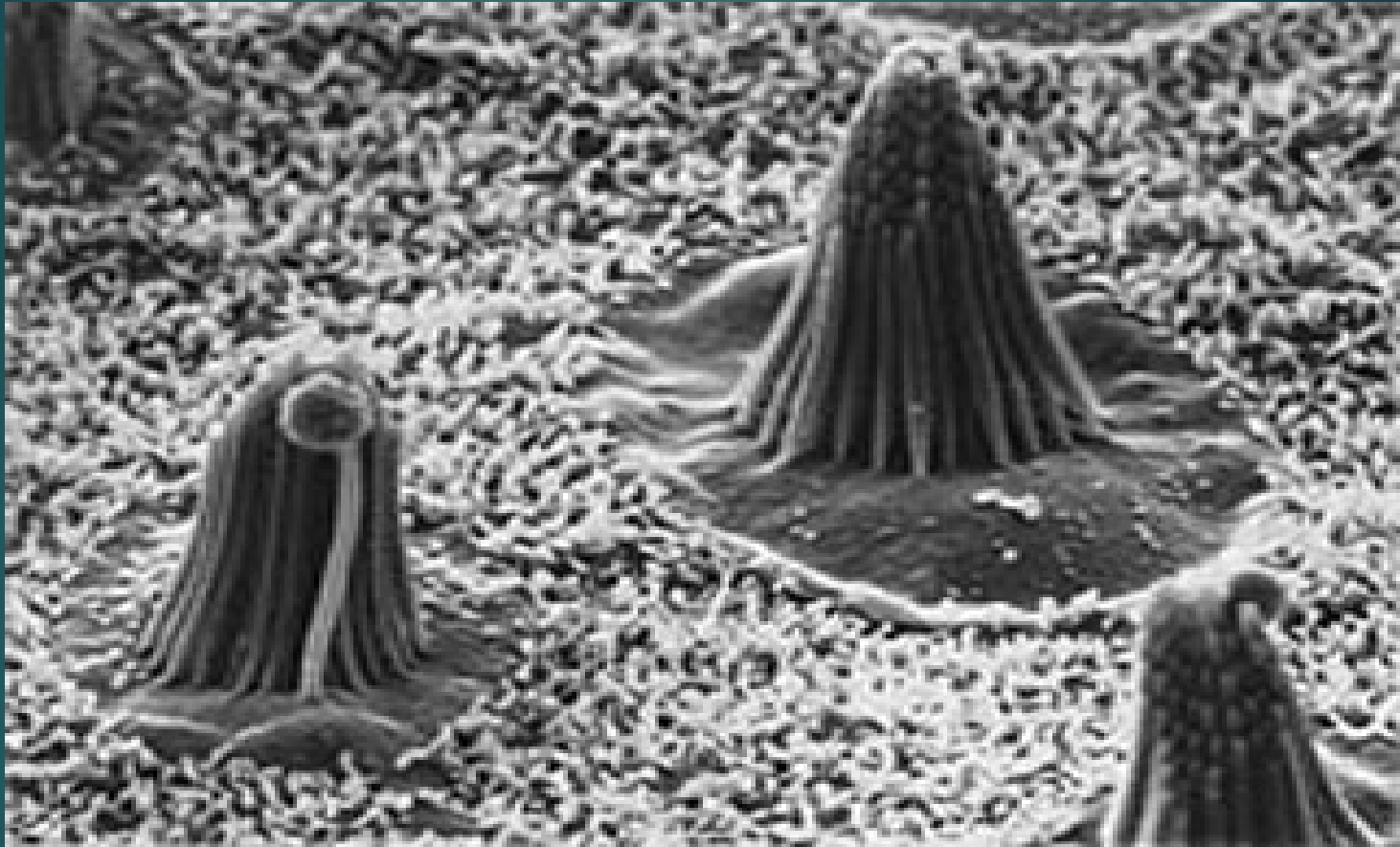




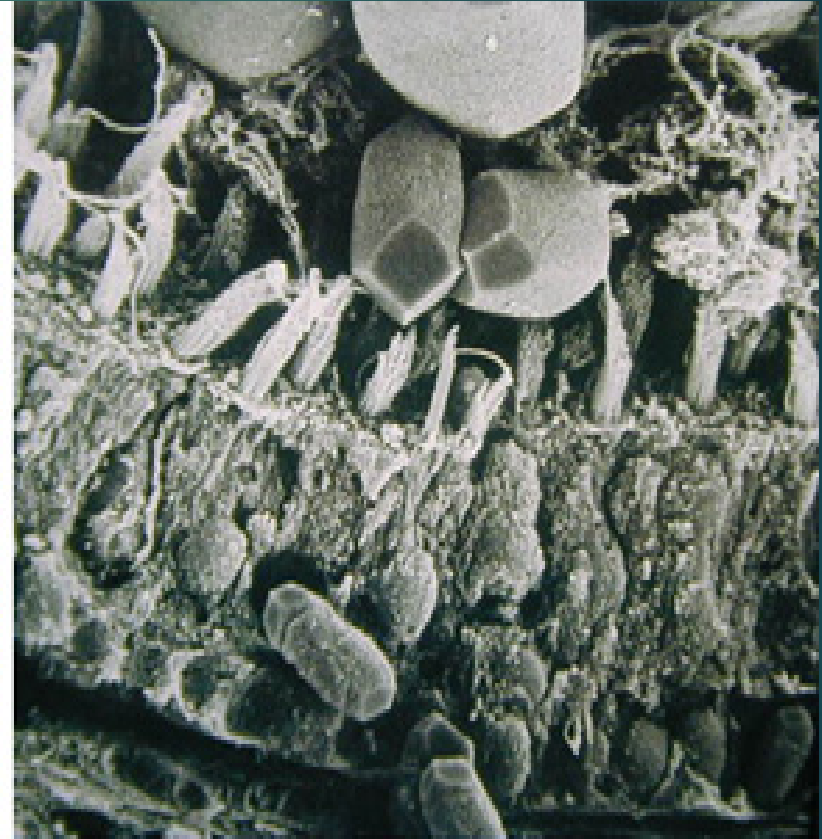
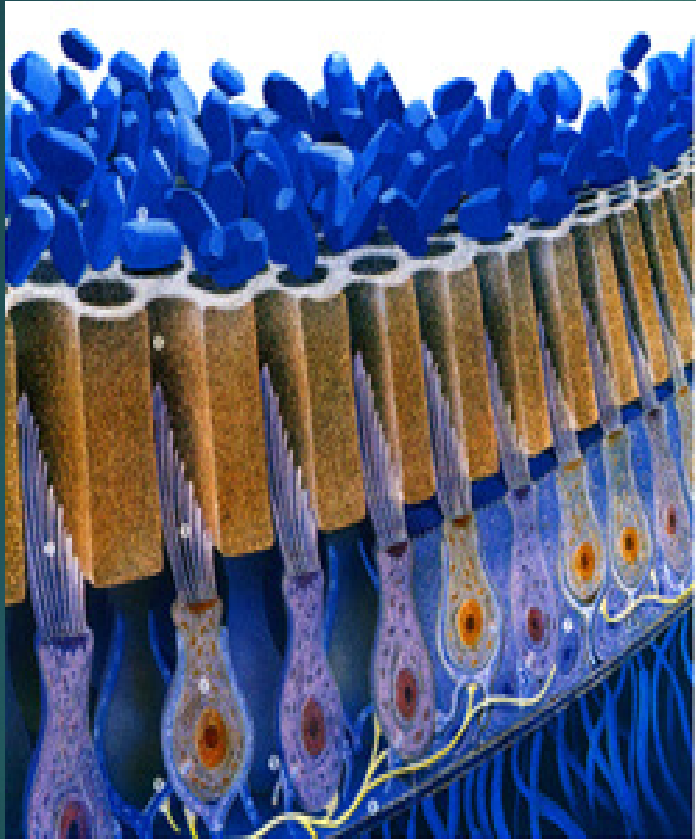




Hair Cells



Calcium Carbonate

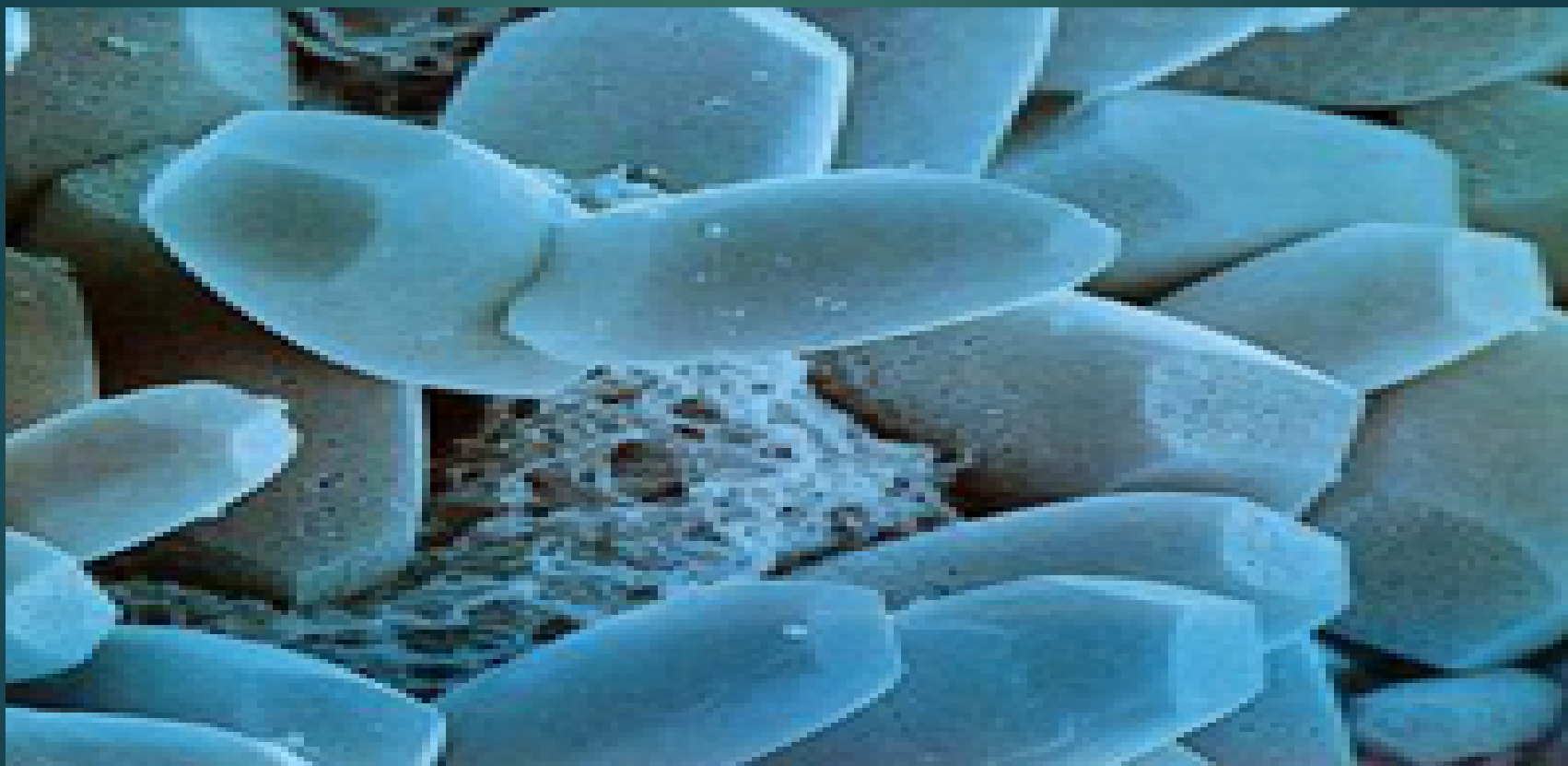


When we start to spin.....





Comorbidities

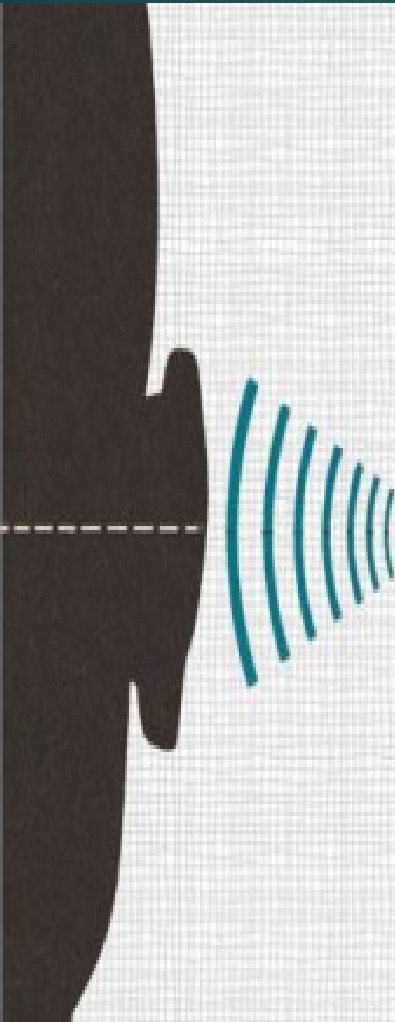




Untreated Hearing Loss & Dementia



DID YOU
KNOW?



Hearing loss is about
TWICE AS COMMON
in adults with diabetes
as those without.



STOP
DIABETES

American Diabetes Association



A Link between
Hearing Loss &
Cardiovascular
Disease



CARDIOVASCULAR DISEASE (CVD)
 Could the ear be a window to the heart?
 CVD linked



ALZHEIMER'S & DEMENTIA
 Dementia risk may be up to 5X higher with hearing loss



DIABETES
 Hearing loss 2X as likely for those with diabetes

DEPRESSION
 Symptoms go down, quality of life goes up with hearing aid use



FALLING
 Hearing loss tied to 3-fold risk of falling



CHRONIC KIDNEY DISEASE (CKD)
 Moderate CKD associated with 43% increased risk of hearing loss



MORTALITY
 Hearing loss tied to greater risk of dying for older men

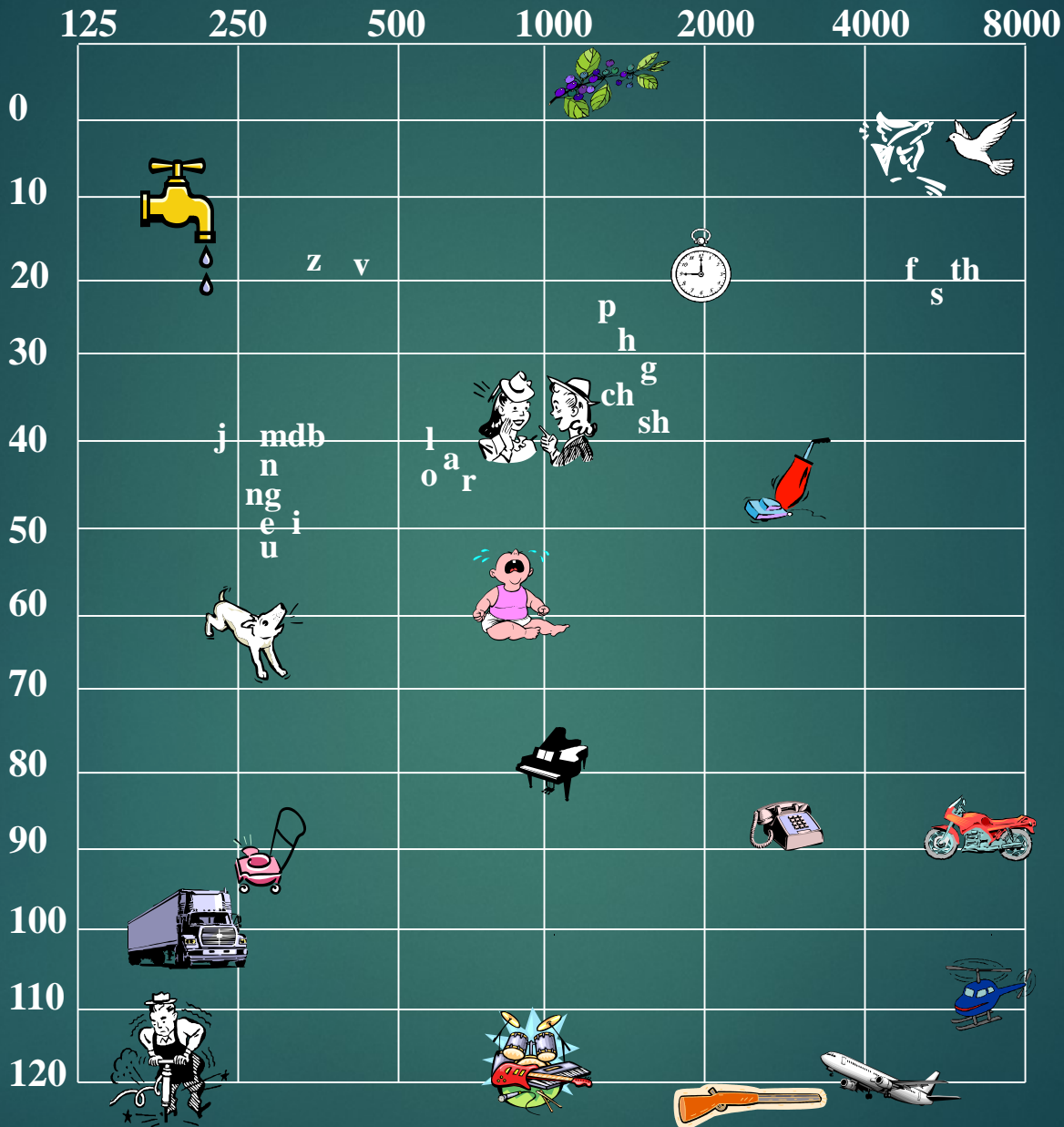


HOSPITALIZATION
 32% more likely for older adults with hearing loss

HEARING LOSS IS CONNECTED TO OTHER HEALTH CONDITIONS

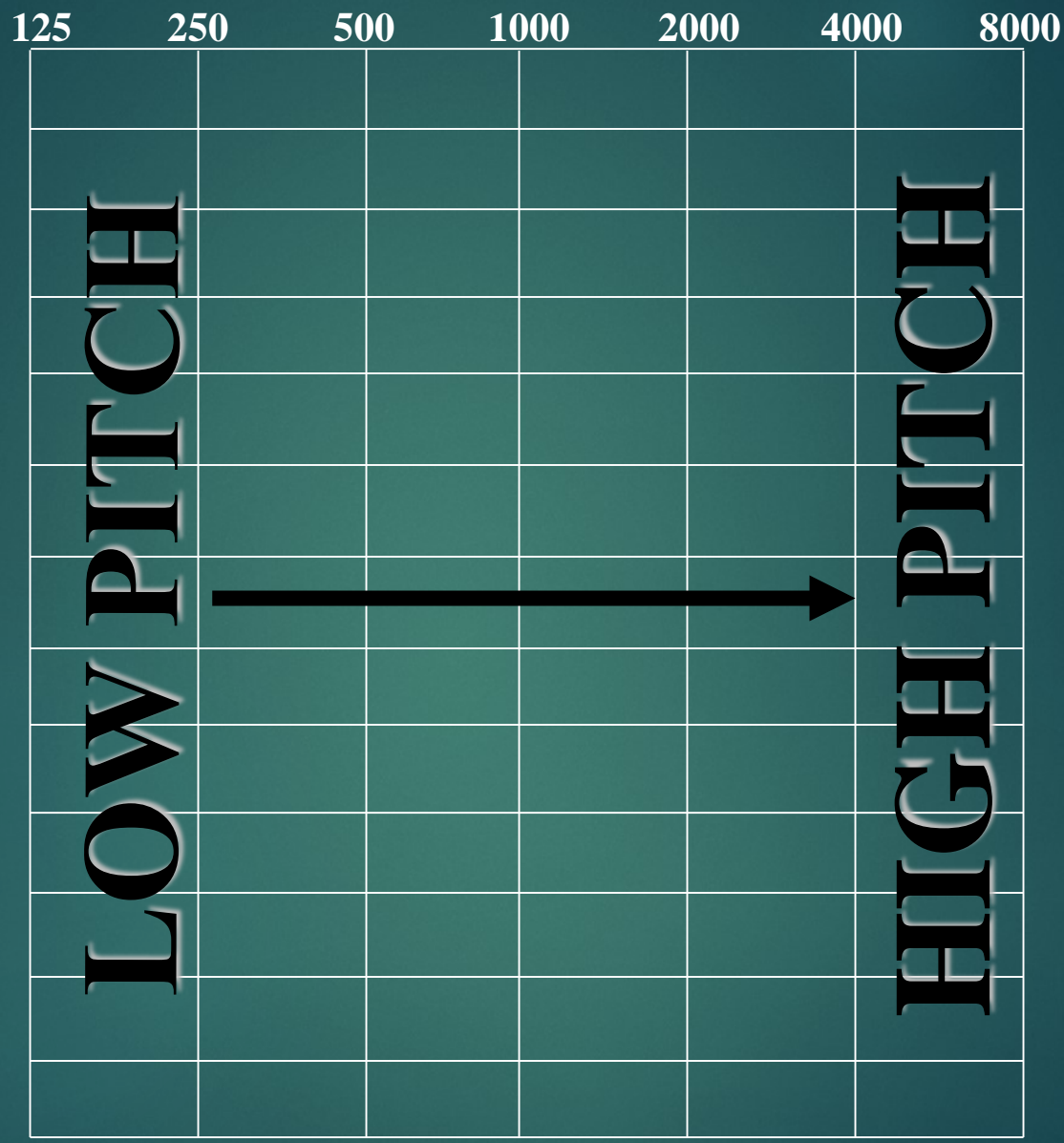


HEARING LEVEL (dB HL)



AUDIOGRAM OF FAMILIAR SOUNDS

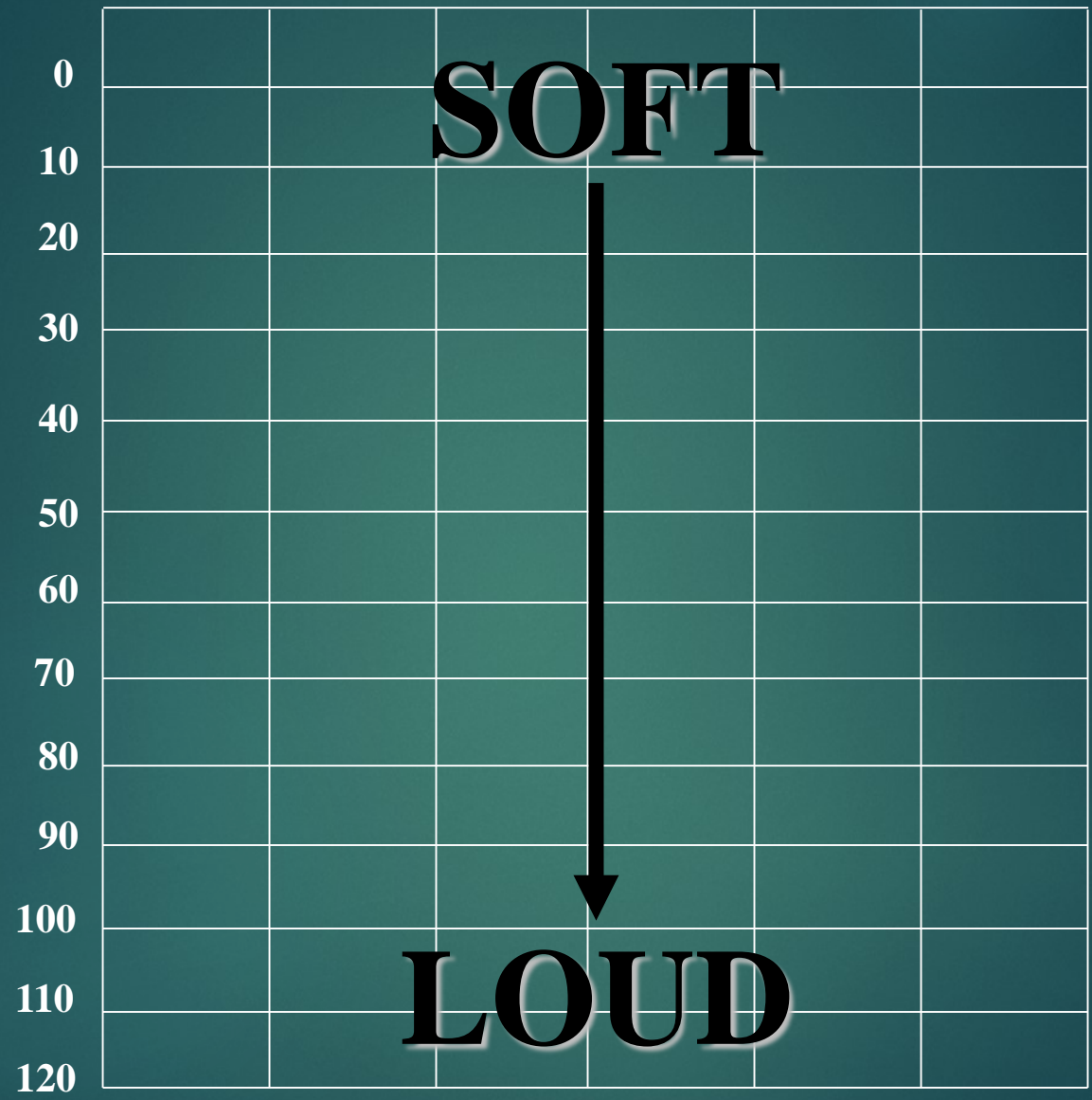
FREQUENCY IN CYCLES PER SECOND (HZ)



FREQUENCY IN CYCLES PER SECOND (HZ)



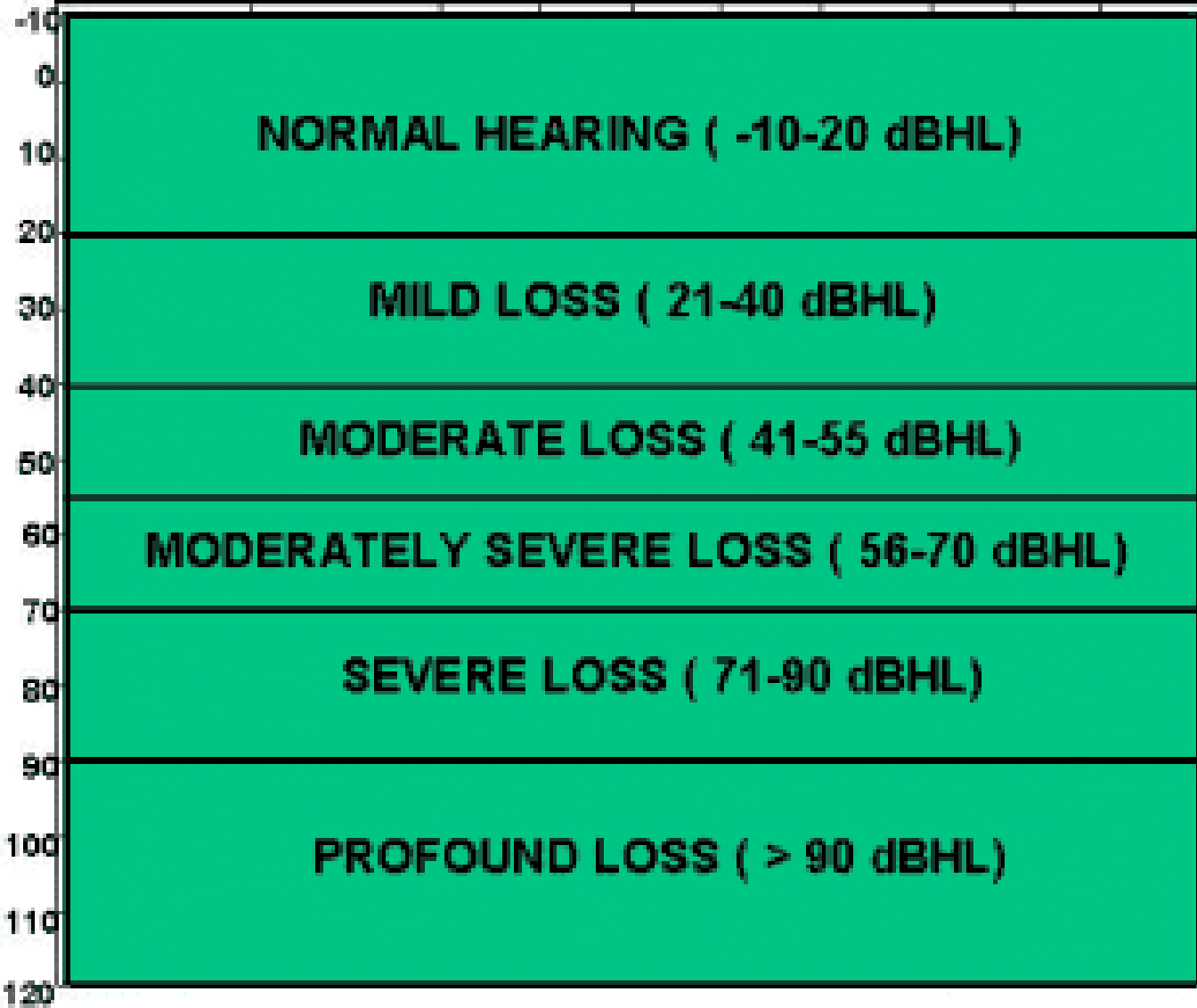
HEARING LEVEL (dB HL)



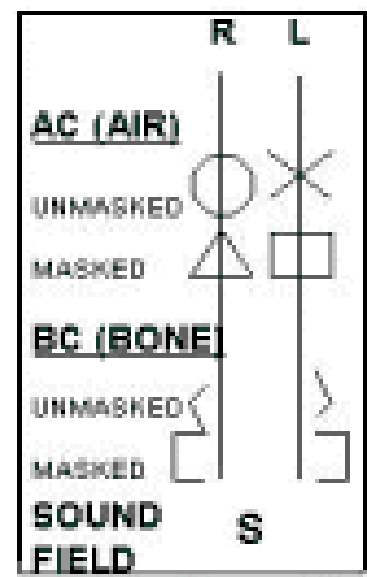
FREQUENCY IN HERTZ (Hz)

125 250 500 750 1000 1500 2000 3000 4000 6000 8000

HEARING LEVEL (HL) IN DECIBELS (dB)



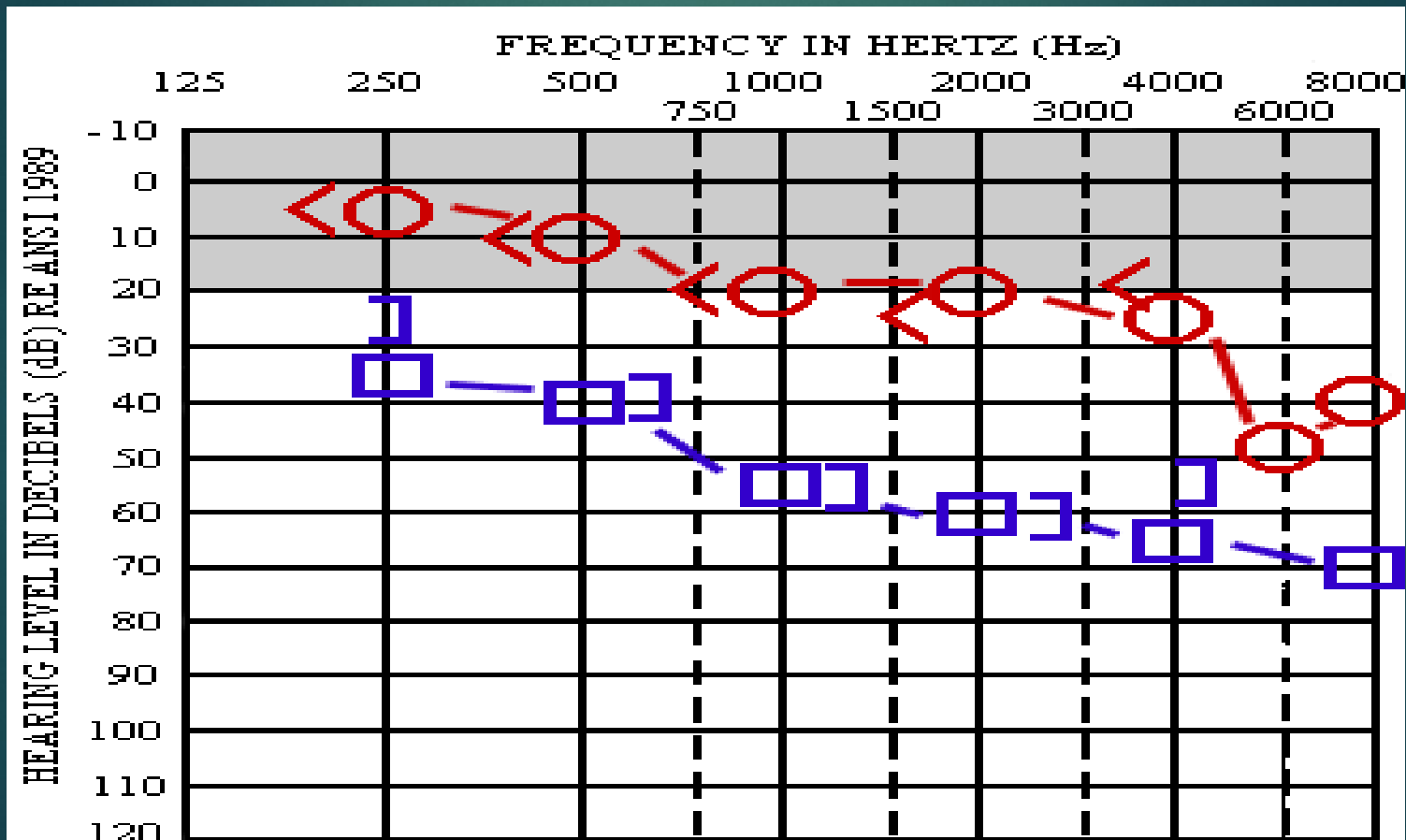
KEY



SPEECH AUDIOMETRY

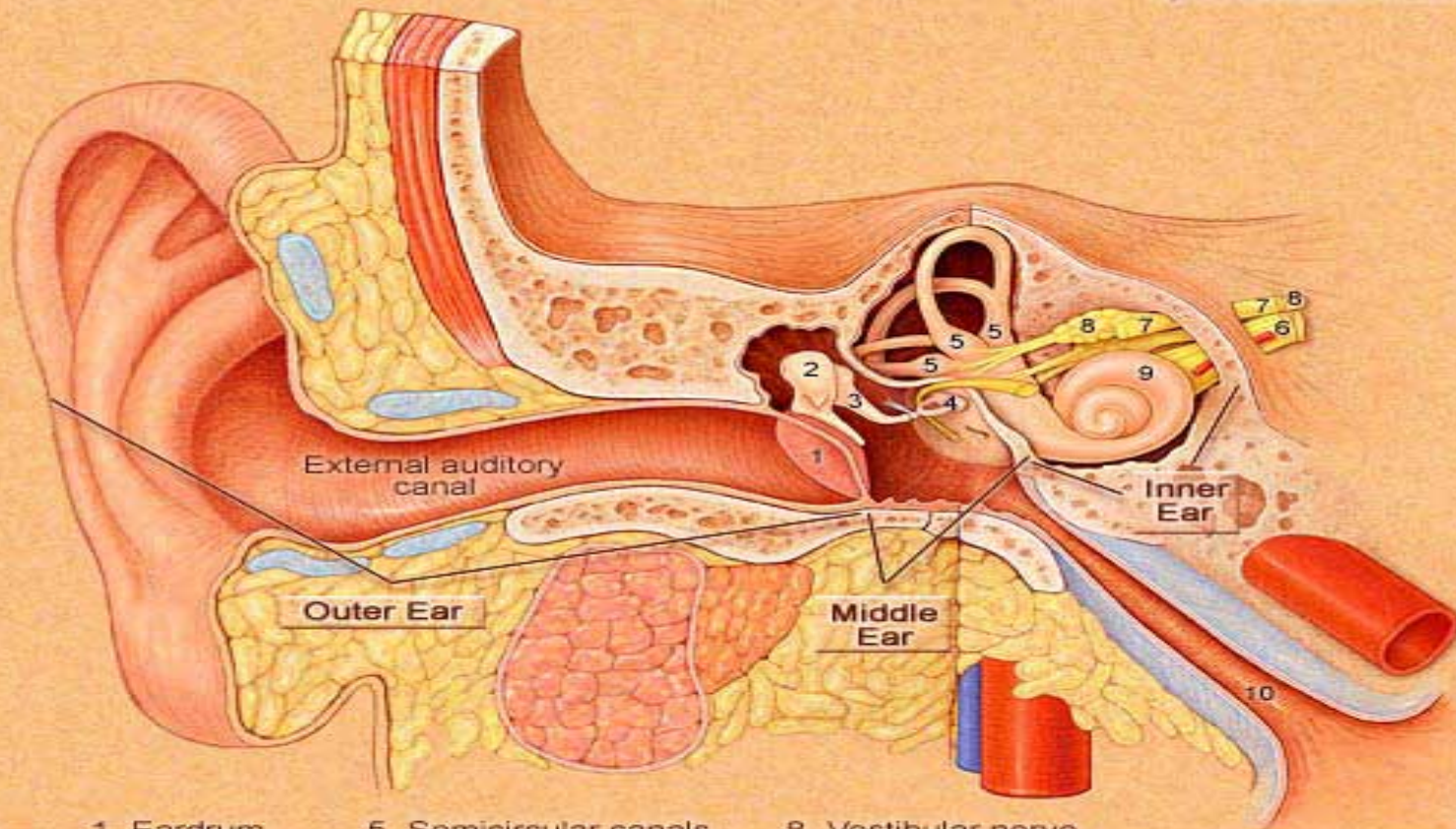
	R	L
SDT		
SRT		
SPEECH DISCRIM. (WORD RECOG.)		

Audiogram



The Ear

© Northwestern University



1. Eardrum
2. Malleus
3. Incus
4. Stapes

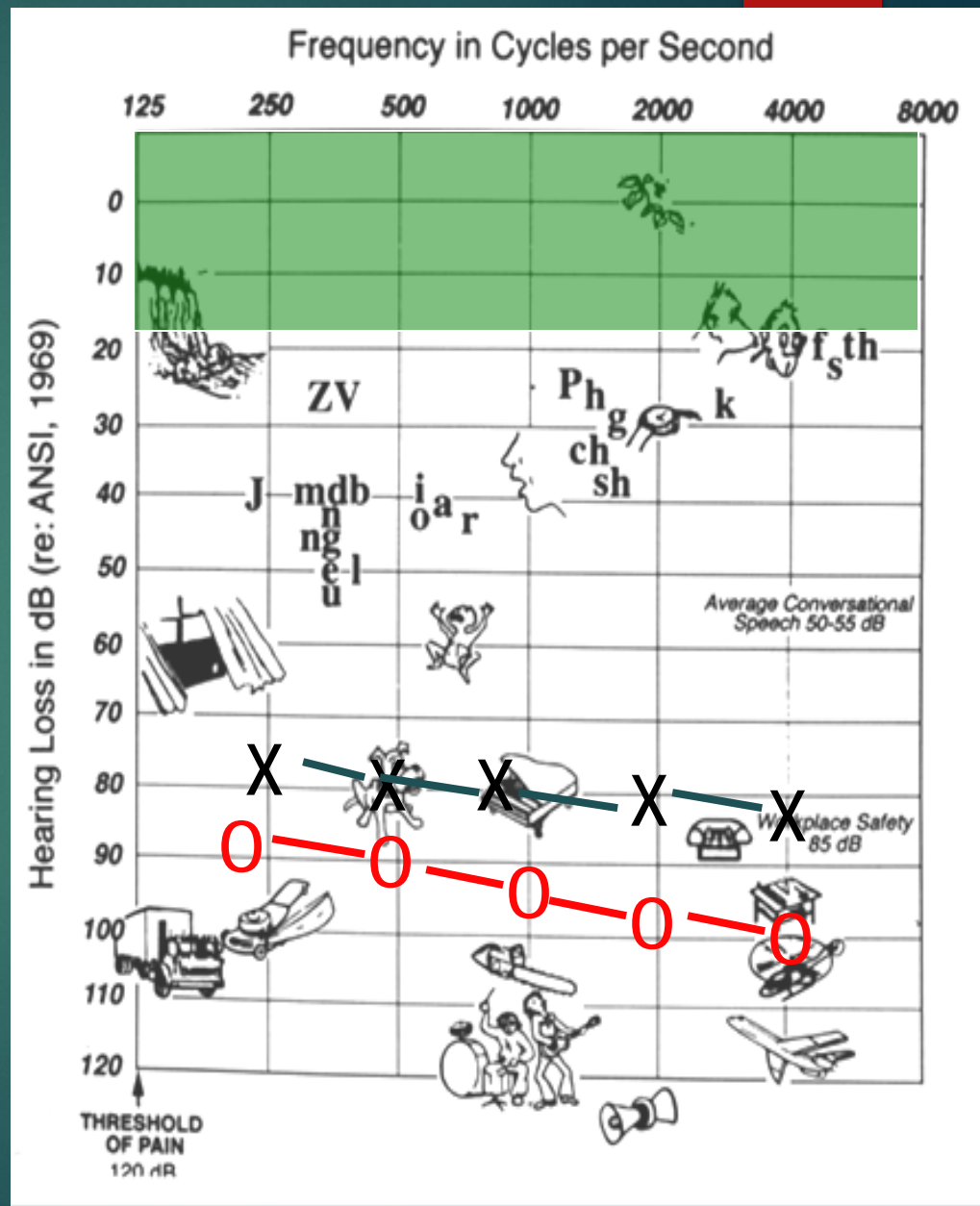
5. Semicircular canals
6. Auditory nerve
7. Facial Nerve

8. Vestibular nerve
9. Cochlea
10. Eustachian tube

Normal
range of
hearing



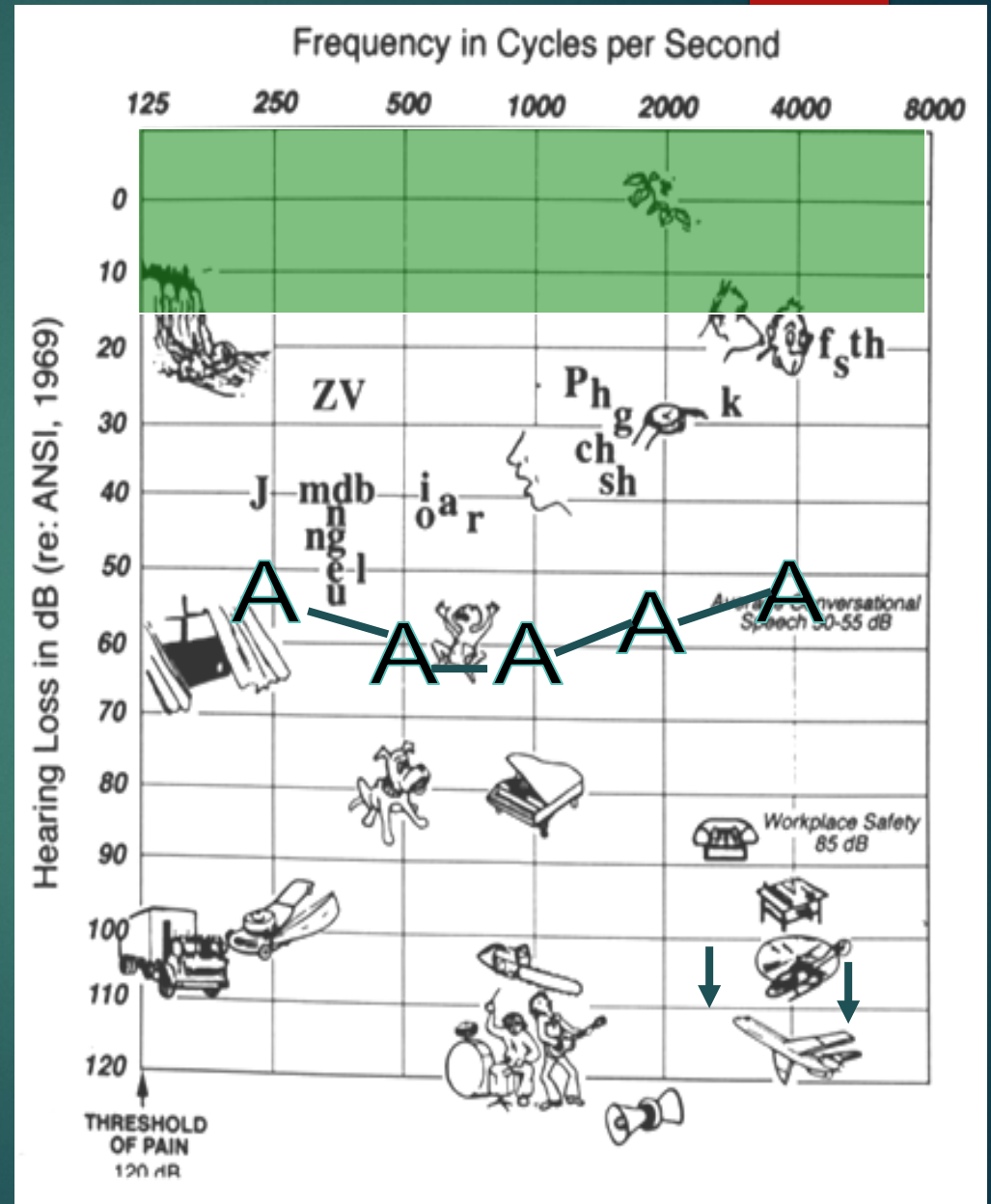
Before



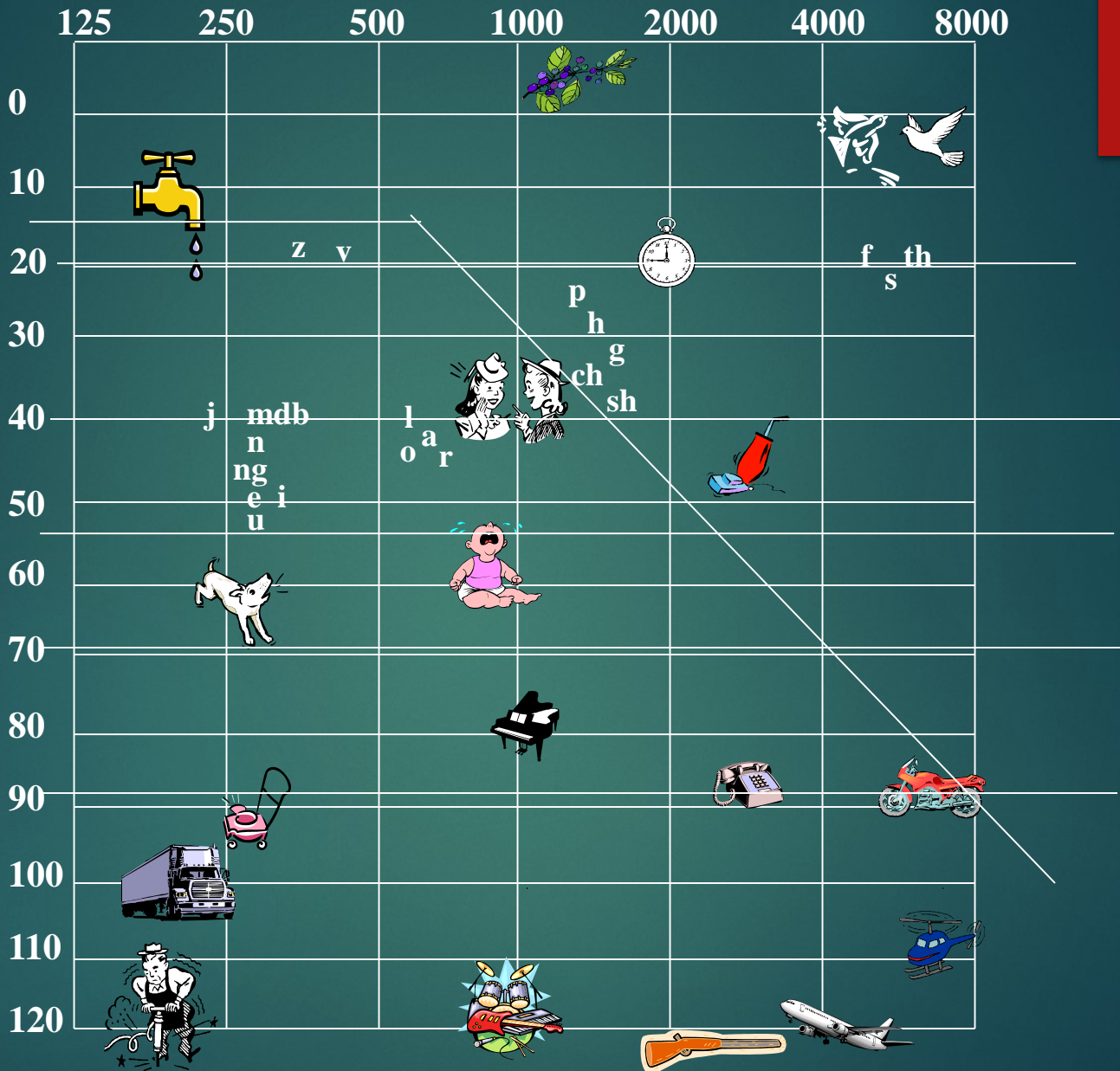
Normal
range of
hearing



After
Hearing
Aid



HEARING LEVEL (dB HL)



AUDIOGRAM OF FAMILIAR SOUNDS
FREQUENCY IN CYCLES PER SECOND (HZ)



Geo.
C. Scott

"The ringing in your ears—I think I can help."



References

- ▶ National Council on the Aging (NCOA): The Impact of Untreated Hearing Loss in Older Americans. Conducted by the Seniors Research Group. Supported through a grant from the Hearing Industries Association. Preliminary Report, 12/28/98.
- ▶ Kochkin S. Quantifying the Obvious: The Impact of Untreated Hearing Loss on Quality of Life, Knowles Electronics, Itasca, IL: May 1999.
- ▶ Kirkwood D: Major survey documents negative impact of untreated hearing loss on quality of life. Hearing Journal 1990: 52(7)L 32-40.
- ▶ Kochkin S: MarkeTrak V: Baby Boomers spur growth in potential market, but penetration rate declines. Hearing Journal, 1999; 52(1): 33-48.

References

- ▶ National Council on the Aging (NCOA): The Impact of Untreated Hearing Loss in Older Americans. Conducted by the Seniors Research Group. Supported through a grant from the Hearing Industries Association. Preliminary Report, 12/28/98.
- ▶ Kochkin S. Quantifying the Obvious: The Impact of Untreated Hearing Loss on Quality of Life, Knowles Electronics, Itasca, IL: May 1999.
- ▶ Kirkwood D: Major survey documents negative impact of untreated hearing loss on quality of life. Hearing Journal 1990: 52(7)L 32-40.
- ▶ Kochkin S: MarkeTrak V: Baby Boomers spur growth in potential market, but penetration rate declines. Hearing Journal, 1999; 52(1): 33-48.

References

- ▶ National Council on the Aging (NCOA): The Impact of Untreated Hearing Loss in Older Americans. Conducted by the Seniors Research Group. Supported through a grant from the Hearing Industries Association. Preliminary Report, 12/28/98.
- ▶ Kochkin S. Quantifying the Obvious: The Impact of Untreated Hearing Loss on Quality of Life, Knowles Electronics, Itasca, IL: May 1999.
- ▶ Kirkwood D: Major survey documents negative impact of untreated hearing loss on quality of life. *Hearing Journal* 1990: 52(7)L 32-40.

References

- ▶ National Council on the Aging (NCOA): The Impact of Untreated Hearing Loss in Older Americans. Conducted by the Seniors Research Group. Supported through a grant from the Hearing Industries Association. Preliminary Report, 12/28/98.
- ▶ Kochkin S. Quantifying the Obvious: The Impact of Untreated Hearing Loss on Quality of Life, Knowles Electronics, Itasca, IL: May 1999.
- ▶ Kirkwood D: Major survey documents negative impact of untreated hearing loss on quality of life. *Hearing Journal* 1990: 52(7)L 32-40.

References

- ▶ *Hall. James III Aural Immittance Measures. The Hearing Journal, April 2010. volume 63. number 4*
- ▶ www.thehearingjournal.com