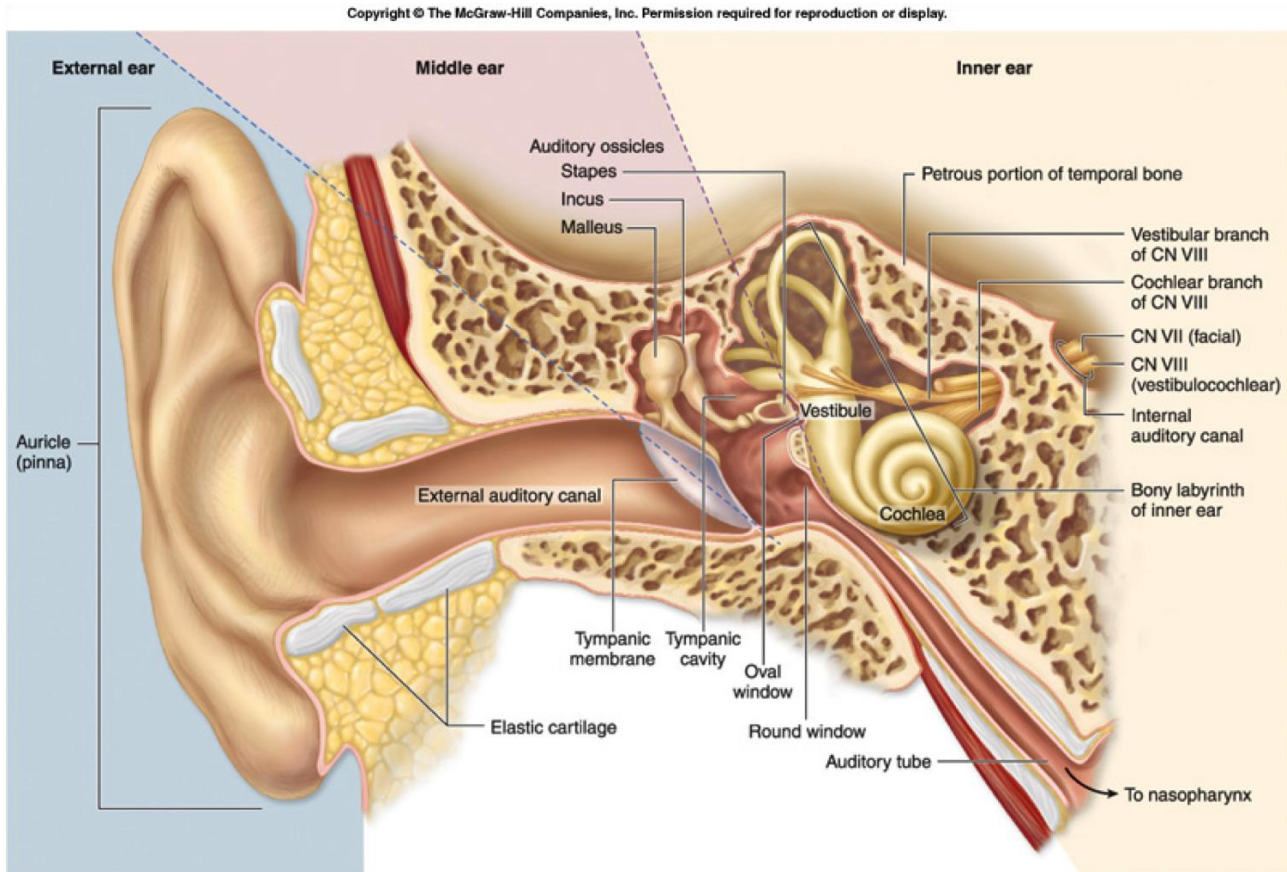




Renee L.G. Koffend,  
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# Hearing loss, Hearing Aids and Assistive Listening Devices

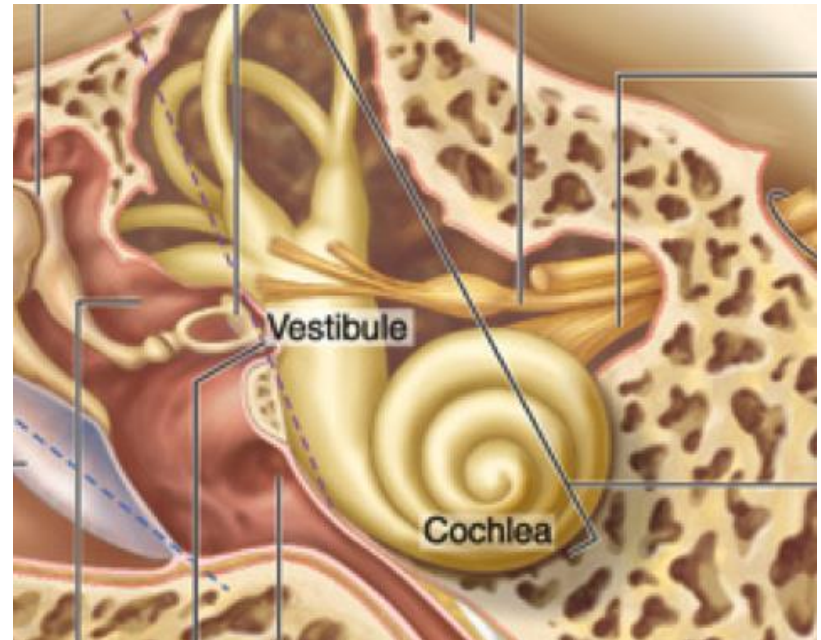
# + How we hear



# + Types of Hearing Loss

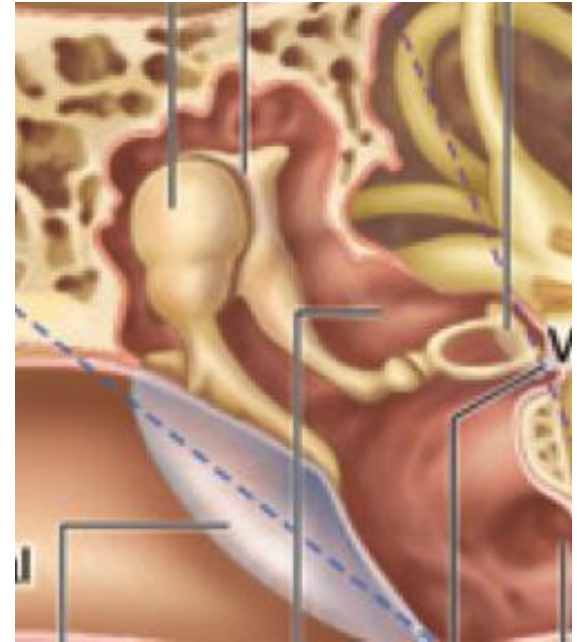
## Sensorineural

- Genetics/Family History
- Noise Exposure
- Head Trauma
- Ototoxicity
  - Antibiotics (gentamicin)
  - Chemotherapy treatments (cisplatin)
  - Poisons (mercury & lead)



# + Types of Hearing Loss

- Conductive hearing loss
  - Ear infections
  - Eustachian tube dysfunction
  - Impacted cerumen
  - Eardrum damage
- Mixed hearing loss



# + Five Sound Reasons to Promote Better Hearing



ONE: Many People with Hearing Loss are Already in the Workforce

- Increase in adult hearing loss at younger ages (20's and 30's)
- 10% full-time employees have diagnosed hearing loss
- 30% full-time employees suspect a problem

TWO: Treating Hearing Loss Can Enhance Worker Performance

- improved communication
- improved social interactions
- improved self confidence



## Three: Hearing Loss Does Not PAY!

Hearing loss can be  
Hazardous

More workplace Injuries

Hearing loss may lead to  
depression

Fatigue and Less Productive

More sick days

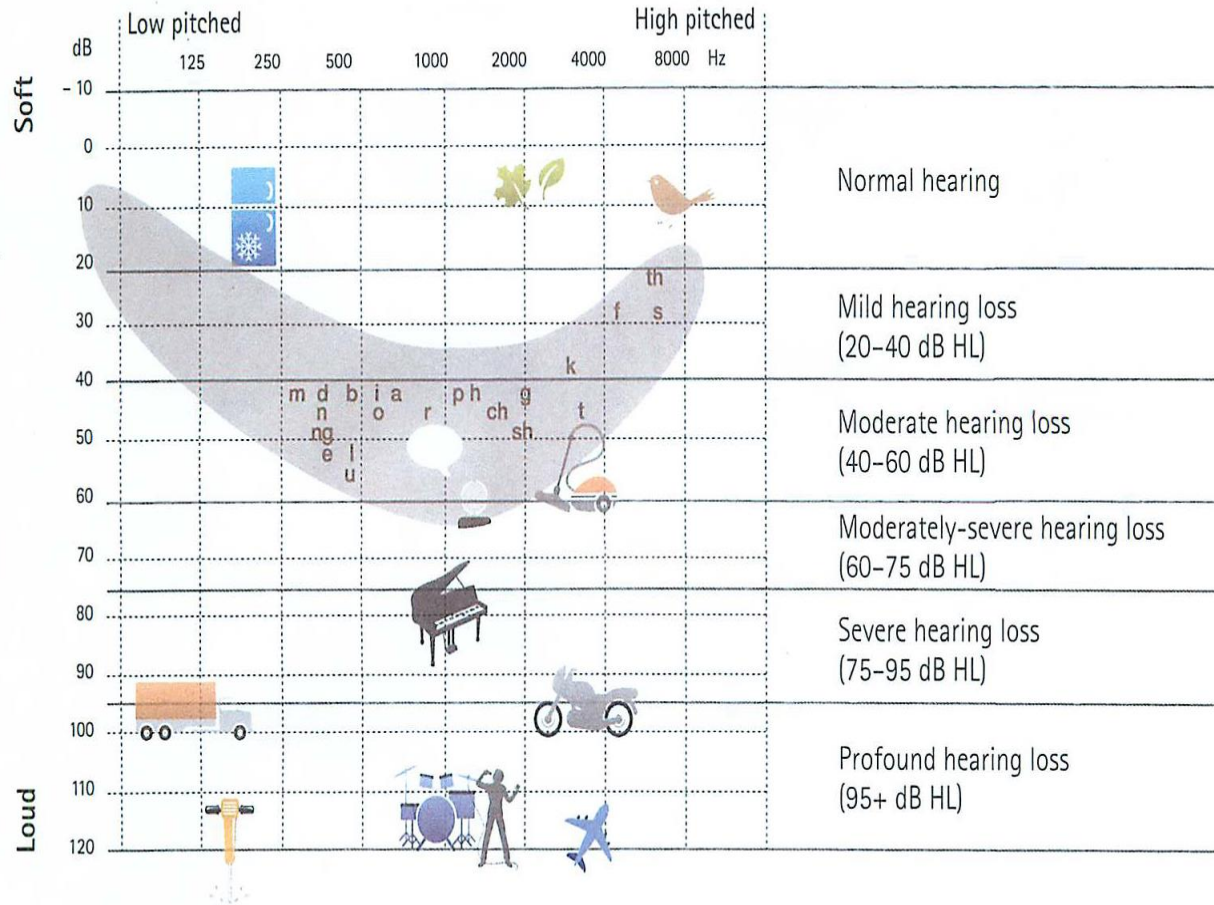
## FOUR:

Hearing Loss is Linked to  
other Health Issues

## FIVE:

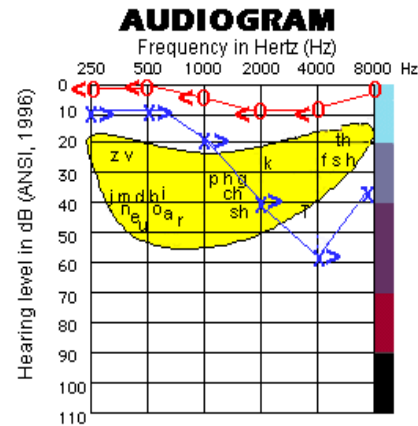
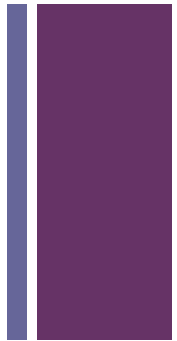
Hearing Aids are Better  
than Ever!

# + Audiogram

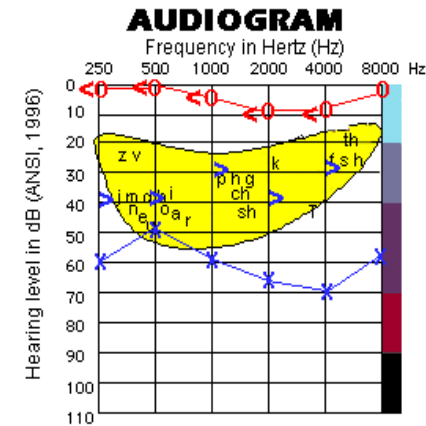




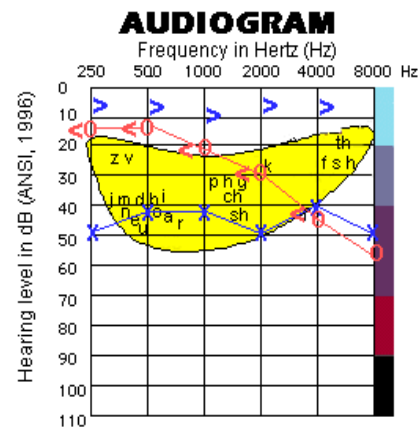
# Types of Hearing Loss



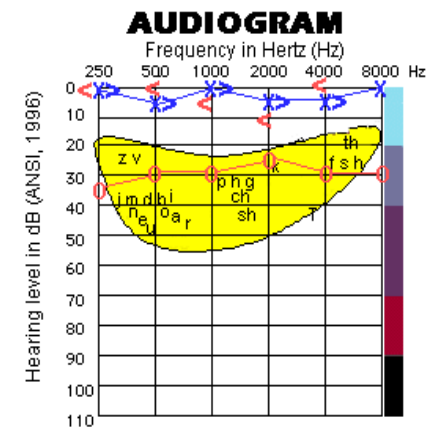
Normal sloping to moderate *sensorineural* hearing loss in the left ear.



Moderate *mixed* hearing loss for the left ear.



Moderate *conductive* hearing loss in the left ear.  
Normal sloping to moderate *sensorineural* hearing loss in the right ear.

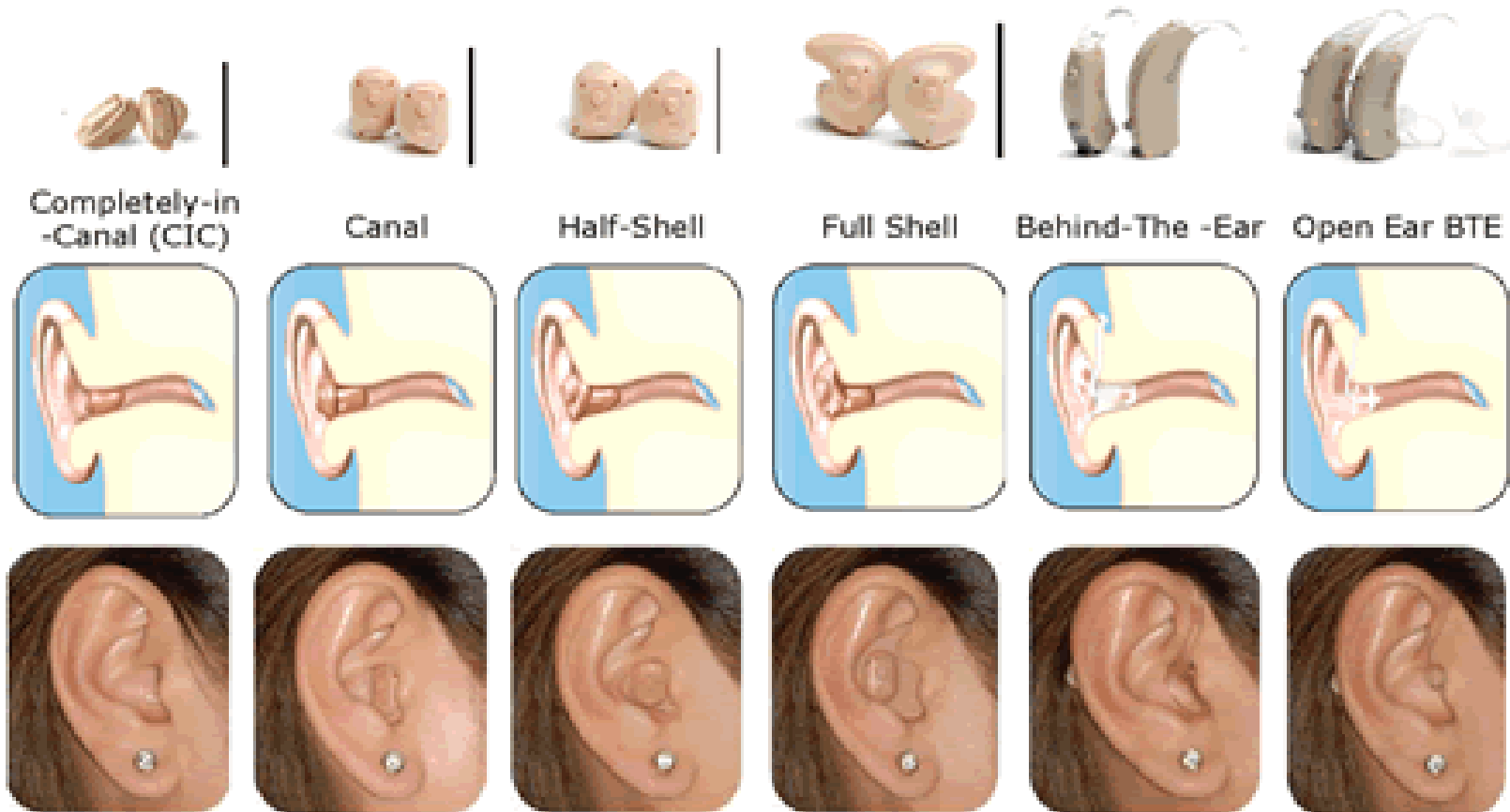


Mild to moderate *conductive* hearing loss in the right ear





# Hearing Aid Styles



# + FM Systems

## Different Microphone Types and Positions





Lapel microphone - about six inches away from the mouth



Boom microphone - three inches from the mouth

## Different Types of Transmitters



 <p><b>Body-Worn Receiver</b></p>	 <p><b>Ear-Level Receivers</b></p>
 <p><b>Integrated Ear-Level Receivers</b></p>	

# + Considerations...



- Style & Level of Technology
- Features: Bluetooth Connectivity, Remote Mic
- Ease of Use: Fully Automatic
- Cost