

# Hearing Aid Fitting Process and Technology

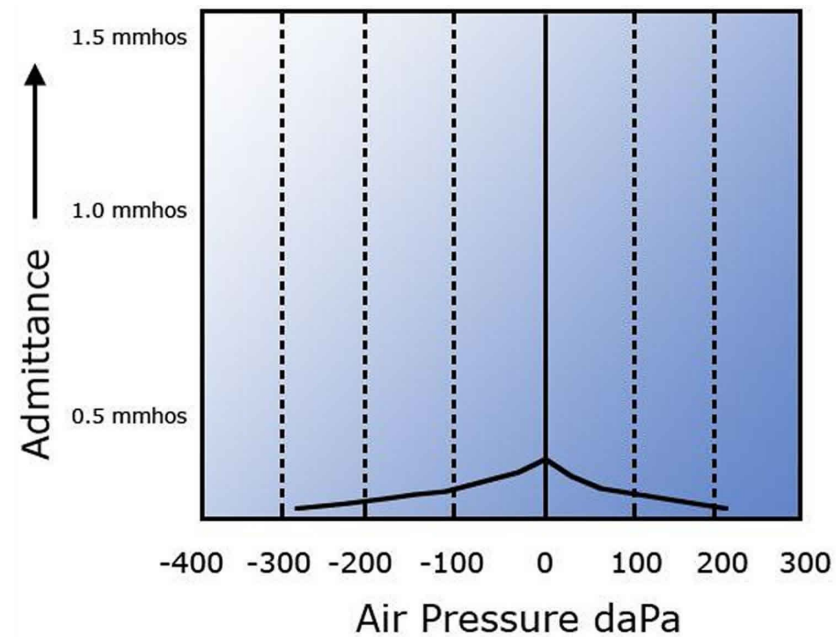
Dr. Janani Perera  
Audiologist  
Alexandria Hearing Centers

# Background

- Why I became interested in audiology
- Schooling
  - Undergraduate: University of Pittsburgh
  - Graduate: University of Maryland
  - Residency: Massachusetts Eye and Ear, Harvard Medical School
- Current position: Alexandria Hearing Centers

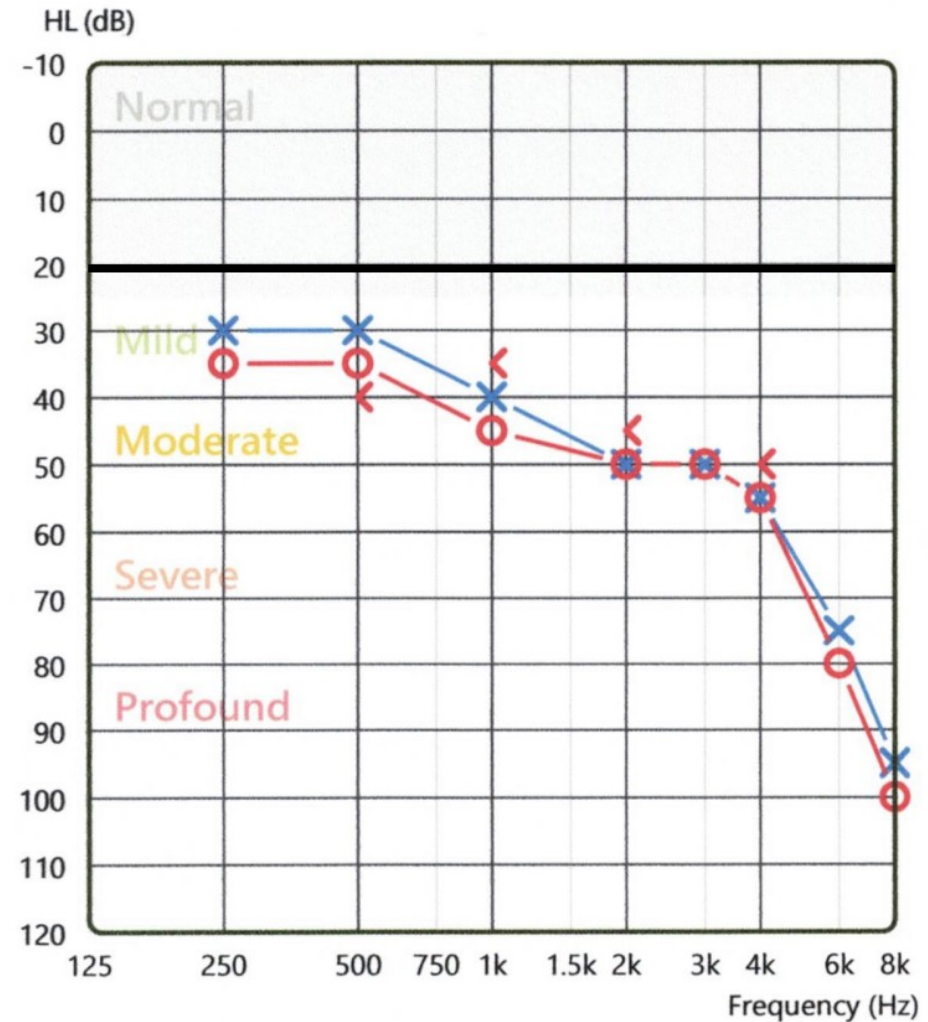
# First steps during a hearing test

- Detailed history
- Otoscopy
- Tympanometry



# The audiogram

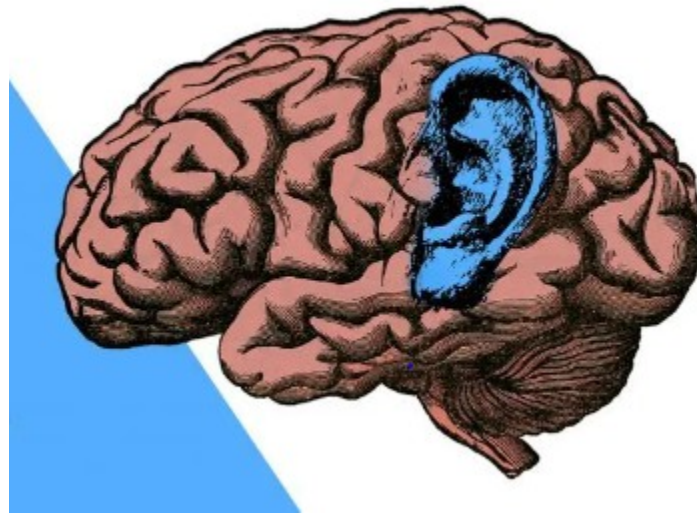
Ear Side	SRT	WR	MCL	UCL
Right	45 dB HL			
Right		100% @ 85 (55) dB HL		
Left	40 dB HL			
Left		100% @ 80 (50) dB HL		



# A note on tinnitus

- Sound in your ears without an outside acoustic source
- Over 45 million Americans have tinnitus (American Tinnitus Association)
- Can be related to or a side effect of: hearing loss, loud noise exposure, ototoxic medications, head injury, TMJ, tumors, etc.
- Many different treatment options available: hearing aids often trialed first

# New research: Hearing loss and dementia



# Hearing aid consultation

- Trial different devices set according to the patient's hearing levels
- Discuss different styles and manufacturer options
- Discuss insurance coverage/service plans



# 6 major hearing aid manufacturers

- Well established manufacturers with warranties, trial periods, and good programming support
- Can all be programming according to most hearing levels, processing/chip is different





# Proprietary tech for each manufacturer

- Continual sound scene analysis
- AI and machine learning
- Motion sensors
- Battery life
- Health monitoring (step counting, movement reminders)
- Fall alerts
- Language translation
- Tinnitus management

# Next steps in the industry?

- More AI and machine learning
- Eye movement detection
- Decreased sizing while maintaining battery life
- More health monitoring

# Hearing Aid Fitting

- Program hearing aids according to prescription
- Ensure good fit and comfortable sound quality
- Practice being able to insert/remove devices
- Connect to cellphone and review app
- Review warranty information

# Follow up schedule

- Follow during trial to narrow down settings based on feedback
  - Can switch style/manufacture during this time
  - Can also return devices
- Every 6 month to maintain/adjust hearing aids
- Annual hearing test to monitor hearing

Thank you!

Please reach out if you have any questions, I am happy to help.

Janani Perera, Au.D.  
[janani@alexandriahearing.com](mailto:janani@alexandriahearing.com)