

Audiology Review Sheet:

What does an audiologist do?

1. Diagnoses, treats and manages people who have hearing loss or balance problems
2. Present variety of treatment options ex: dispensing and fitting hearing aids, vestibular rehab
3. Academic and clinical training provides foundation for patient management

Audiologists are NOT:

1. ENT doctors – trained for medical and surgical management of ears nose and throat disorders
2. TECHNICIANS –because they can have their own practice separate from medical doctors

Prevalence of hearing loss:

1. The WHO says 278 million people have moderate to profound hearing loss in both ears
2. 28 million Americans have some type of hearing loss
3. Prevalence of hearing loss increases with age

Where do audiologists work?

1. Hospital
 2. Medical office or department (ENT)
 3. Private practice
 4. Schools
 5. Universities
 6. Factories
- Private practice is the third largest employment
 - Outpatient care center makes most salary

Medical audiology:

1. Largest specialty
2. Work in medical environment
3. Diagnose
4. Often work with other professionals
5. Monitor for ototoxicity induced hearing loss

Pure Tone Test: audiogram: beeping test

Conductive hearing loss: otitis media and brain trauma

Sensorineural hearing loss: noise, ototoxicity, aging

Tympanometry test: middle ear and tympanic membrane

Educational audiology: school system

Pediatric audiology: infants and children

Newborn hearing screening: non invasive important because first three years of life important to learn language so need to figure out if have impairment early on

Industrial audiology: noise induced hearing loss test employees. Earmuffs and earplugs protect ears 85 dB A*

Dispensing/ Rehabilitative Audiology: more focus on management than diagnosis biggest profit margin

Research Audiology: companies and makers

Training of audiologist:

Two standards in US:

- State licensure – different for each state
- ASHA certificate- national standard

Three requirements:

- Education
- Experience
- Exam

ASHA – American speech-language hearing association

AAA-American Academy of Audiology

Hearing evaluation:

Testing sounds: acoustics

Patient's response: psychoacoustics

Sound:

Sound exists even if there is no one there to hear it

Sound source is the generator of sound

Sound medium is capable to transmit the sound

Mass:

- High mass low vibrating rate
- Low mass high vibrating rate

Elasticity: objects ability to resist change to its shape and volume

Elasticity of air:

- Air molecules are random know as Brownian motion

Sound medium: Vibration of air molecules

Compression – high pressure

Rarefactions – low pressure

Psychoacoustics: study of the subjective human perception of sound. Studying the hearing process

Sound localization: the ability to tell the direction of sound without seeing the source

Complex phenomenon resulting from interaction of BOTH EARS