

AUDIOLOGY PRESENTATION

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What We Do

- Hearing Evaluations
- Remove Earwax
- Refer to Physicians for Medical Treatment When Necessary
- Refer to Speech-Language Pathologists for Aural Rehabilitation
- Aural Rehabilitation
- Teaching patients with hearing loss ways to overcome communication problems
- Assistive Listening Devices
- Facilitate better communication with family/staff

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Hearing Loss And Aging

- Age related hearing loss is the 3rd most common health problem in aging population
- Behind Cardiovascular Disease and Arthritis



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When do I Refer?

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If A Resident...

- Has a hearing aid
- Listens to TV or Radio at high volume level
- Frequently says "What" or "Huh"
- Answers questions inappropriately
- Turns his head to "better ear"
- Cups hand over ear when listening
- Talks in an unnaturally loud voice...

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If A Resident...

- Frequently misunderstands what is said
- Does not respond to what you say
- Is withdrawn and does not participate
- Has abnormal otoscopic findings

Then He/She is a candidate for a hearing evaluation & possible aural rehabilitation!

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Also refer when you see abnormalities in a patient's ear canal...

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Otoscope

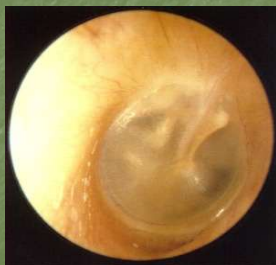


- Used to look in patients' ears
- Should be used with every admission
- Every SLP & Nurse should have access to one

What are we looking for...

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Otoscopy: Normal Tympanic Membrane



- Eardrum transparent
- No earwax
- Middle ear bones visible
- No bulging
- No retraction
- No redness
- No fluid line

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Otoscopy: Normal Epithelial Migration



- Epithelial cells sloughed-off, mixed with earwax and migrating out of the ear canal
- Not a cause for concern

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Otoscopy: Traumatic Perforation



- Left ear
- Visible hole in Eardrum
- Blood present



- Compared to normal eardrum



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Otoscopy: Hematoma



- Right ear
- Generally caused by Q-tip, hair pin, pen clip, etc

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Otoscopy: Cerumen (Earwax)



- Complete occlusion of ear canal
- Effects patient's hearing?
- Easily removed during hearing evaluation

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Otoscopy: Chronic Otitis Externa



- Fungal or bacterial
- Foul smell
- May or may not cause pain



- Compared to normal ear

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Otoscopy: Pressure Equalization Tube



- Used with individuals with chronic middle ear fluid and/or eustachian tube dysfunction

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Otoscopy: Retraction Pocket



- Eardrum "sucked-in"
- Often seen in patients with chronic middle ear pathologies



- Compared to normal ear

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Otoscopy: Insect



- Un-identified species
- Earwax present
- Epithelial cells present

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Otoscopy: Tick On Tympanic Membrane



- Tick attached to tympanic membrane
- Tick likely will starve to death if it remains in this location

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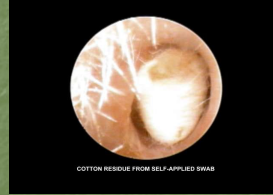
Otoscopy: Ant In Ear Canal



- Dead ant in floor of external auditory canal
- Otherwise normal and healthy ear canal and tympanic membrane

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Otoscopy: Q-Tip



- Entire head of cotton swab lodged in patient's ear canal
- Note size of cotton tip relative to size of ear canal

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Our Audiologists Remove Earwax
Or Foreign Materials From Our
Patient's Ears During The
Hearing Evaluation...

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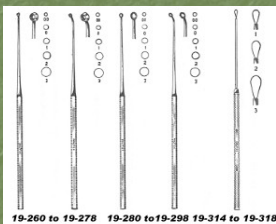
Binocular Headset Used by Audiologist



- Used in mechanical removal of earwax and foreign material from patient's ears

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Curettes And Ear Loops

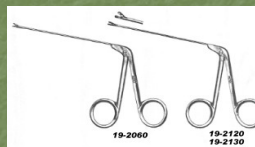


- Used in the mechanical removal of earwax from the external auditory canal



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Ear Forceps



- Used in the mechanical removal of earwax & foreign materials from the external auditory canal



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Both Ears Are Now Clear

What's Next?

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Tympanometry



- Middle ear compliance measure
- Tests eardrum movement
- Tests for problems in middle ear

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Audiometry



- The Hearing Test:
 - Speech recognition
 - Speech discrimination
 - Pure-tone air conduction
 - Pure-tone bone conduction

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Are Bedside Evals Reliable?



- If noise in room is controlled
- If insert earphones are used for Pure-tone testing and Speech testing
- And...
- A CD player is used to deliver speech stimuli
- Then...yes!

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Some findings require the audiologist to refer to the Patient's Physician...

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Serous Otitis Media



- Fluid visible through tympanic membrane
- Loss of transparency
- Requires referral to patient's physician

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Adhesive Otitis Media



- Bluish tint
- Also known as "Glue Ear"
- Requires referral to patient's physician

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Most hearing loss diagnoses are
Sensorineural (Inner Ear)
and are permanent
(Not Medically-Treatable)

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Causes Of Sensorineural Hearing Loss



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What Next? We Have Identified The Hearing Loss...

- Conductive-medical intervention
- Mixed-medical intervention plus amplification
- Sensorineural-amplification & aural rehabilitation, possible physician's referral (Acoustic Schwannoma, etc), possible referral for genetic testing, possible referral for cochlear implant evaluation, etc
- Aural Rehabilitation

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Goals of Aural Rehab Therapy

- Rule-out medically-treatable ear pathologies as the cause for a resident's communication difficulties.
- Remove earwax and/or other foreign material from our patient's ears to provide immediate communication improvement.
- Determine Type and Degree of patient's hearing loss.

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Aural Rehab Consists Of:

- Helping patient's understand their hearing loss.
- Helping family members and healthcare providers understand and cope with a patient's hearing loss.
- Teaching patients to learn to "listen" again.
- Teaching patients to use visual clues for improved communication.

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Aural Rehab Consists Of:

- Teaching patients how to manage background noise.
- Teaching patients repair strategies: Repetition, Re-phrasing, etc.
- Teaching patients how to effectively use ALDs when appropriate

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Assistive Listening Devices Take-Away

- Although ALDs can be an integral part of AR therapy, AR therapy CAN be provided without the use of ALDs.
- ALDs play an important supporting role in any AR program; however, ALDs are only one component of a comprehensive AR program, not the primary goal.

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Turbo Ear



- Inexpensive
- Works well for Mild to Moderate Hearing Losses
- Adjustable Volume
- Built In Light Indicator □
- Uses 1 AAA Battery
- About 25 - 30 Hours ???
- Small Size 2.75" x 1.75" x .75"

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Turbo Ear Headset Options



Classic Headphones



Head-Buds



Binaural Clip-On*



Binaural Earbuds*



Binaural Earbuds with
Flanged Ear tips*

* Monaural versions
also available

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Williams Sound PockeTalker Pro



- Amplifies sound for better speech understanding
- Great for more severe hearing losses
- Adjustable tone and volume control
- 100 hours of battery life
- 5 year warranty
- Crisp & clear sound quality
- Virtually no distortion even at higher volume levels
- Less expensive than hearing aids

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PockeTalker Headset Options



Classic Headphones



Behind the Neck Headset



Monaural Earbuds



Binaural Earbuds



Monaural Clip-On

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Doing Your Part

- Refer Patients Who:
 - Frequently ask you to repeat what was said,
 - Act confused when spoken with,
 - Give inappropriate responses to questions,
 - Play their television too loudly
 - Have history of hearing aid use.
- Encourage Use of the Audiology Referral Tool
- Encourage close attention to hearing on MDS form

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Referral Exercise

- Take out your sheet of paper numbered 1-10
- Mentally visualize yourself walking down your hall
- Walk in each patient's room
- Record the names of each patient who:

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- Turns his head to "better ear"
- Cups hand over ear when listening
- Talks in an unnaturally loud voice...
- Frequently misunderstands what is said
- Does not respond to what you say
- Is withdrawn and does not participate

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Please turn-in your list of names

Thank You for Attending!

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