

Hearing Loss: What's in my toolbox?

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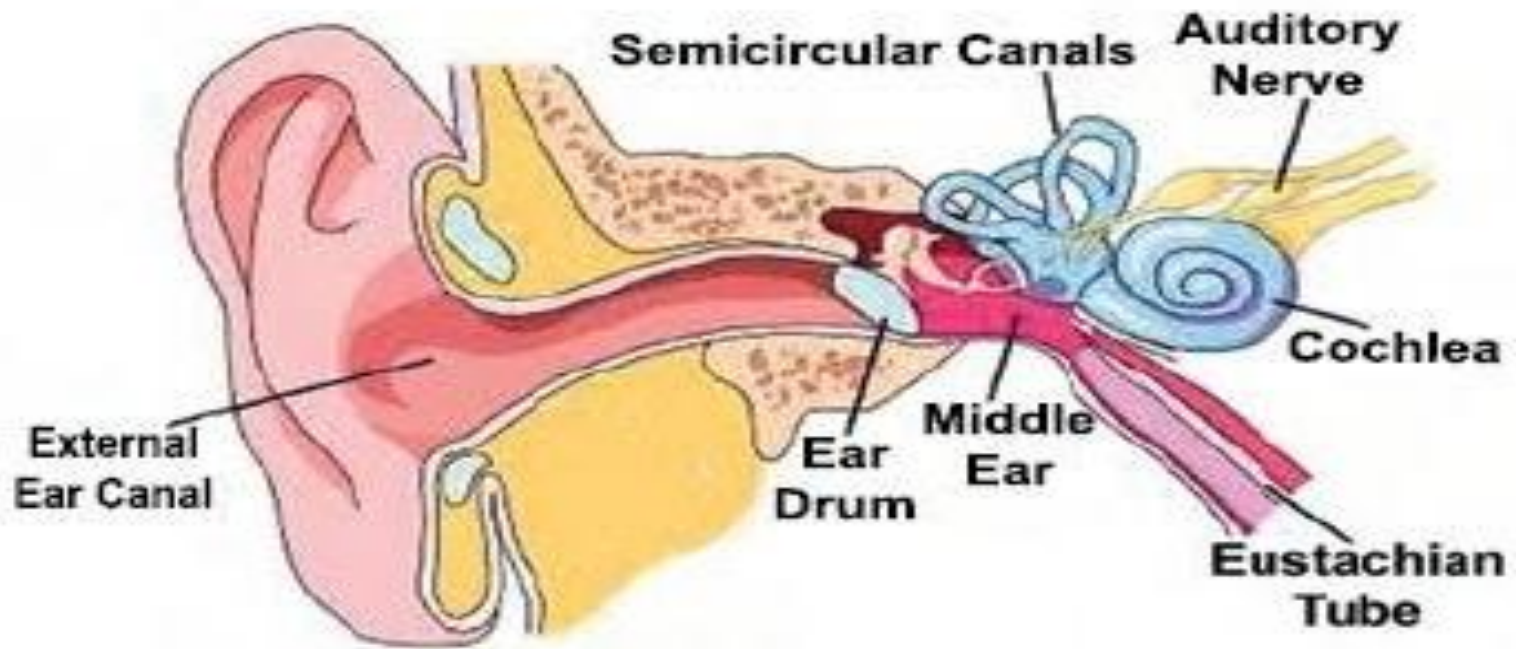
Introduction:

- Does this sound familiar?
 - My hearing is fine....my wife just mumbles!
 - My family says the TV is just too loud.
 - These darn restaurants are too darn noisy and I can't hear a thing!
 - I feel so left out at family gatherings that it makes me sad.
 - It is so embarrassing when I misunderstand!

Impact of Hearing Loss

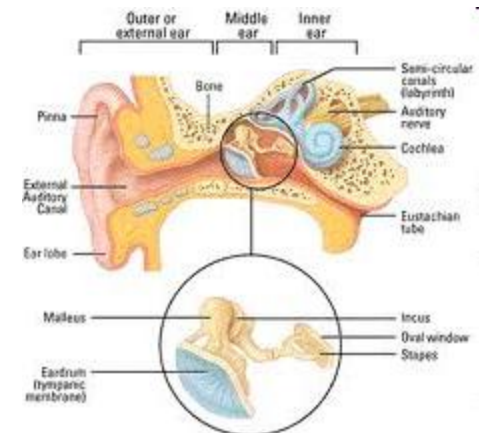
- 31.5 -48 million Americans report hearing problems
- Emotional Impact (NCOA)
 - Depression, social isolation
 - Reduced quality of life
 - Poor self-esteem
 - Impaired relationships with friends and family
 - Loss of independence
 - Loss of income

The Amazing Ear!!



Types of Hearing Loss

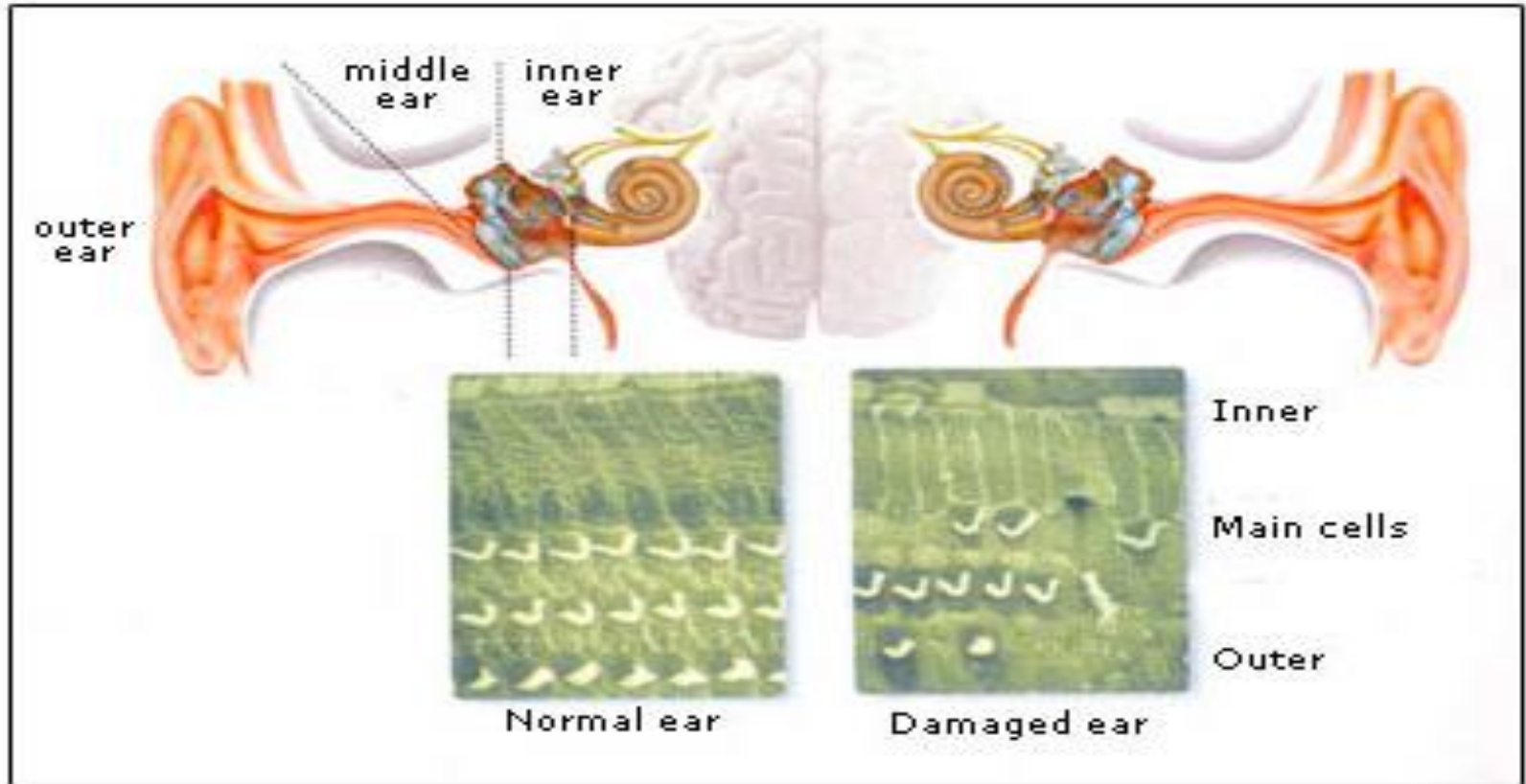
- Conductive
 - Outer and middle ear
 - Primary problem is loss of **VOLUME!!**
 - Ear infections, wax impaction, Q-tip trauma
 - Often treatable with medication or surgery



More Types

- **Sensorineural**
 - Inner ear and/or hearing nerve
 - Usually hair cells in inner ear
 - Loss of volume and clarity
 - Not usually treatable with medicine or surgery
 - Age, noise trauma, genetics and more
 - Hearing aids and cochlear implants

Sensorineural Loss



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Loss of Clarity

- Poor clarity can sound like an AM radio station.
- Sometimes it is like playing.....

_ _ ee_ o_ _or_une!

What?

Wheel of Fortune!



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Other Factors

- Loudness sensitivity
- Ringing in the ears
- Brain issues
 - Speech in noise
 - Memory
 - Fatigue
 - Stress
 - Processing changes related to age

Okay, now what?

- Comprehensive hearing evaluation
 - Pure tones and speech
 - May include loudness discomfort testing and a speech-in-noise assessment
- Talk to your physician
 - Recommended by FDA, not required
- Hearing aid evaluation

The Toolbox



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My Hearing Toolbox

- Hearing Aids
- Implantable technology
- Assistive Devices
- Communication or Coping Strategies

Hearing Aids: Buying Tips

- Before the visit, make a list of the problems you have; okay to be specific; describe your lifestyle
- Call your insurance company and check your benefits beforehand.
- Ask your audiologist what kinds of testing will be done. For example, loudness discomfort testing, real ear testing, speech-in-noise

Hearing Aids: Buying Tips

- Ask about the warranty, trial period, and what services are included
- Bring a family member or friend

Two Decisions

- The physical style
- The technology inside

Hearing Aid Styles



BTE



OPEN-FIT



ITC



CIC

Behind-The-Ear

- Mild to profound hearing loss
- Most flexible
- Can be less visible than custom aids
- Sometimes cumbersome



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Completely-in-the-Canal

- Nearly invisible
- Easy to insert
- Hard to change battery
- Doesn't have the best noise management



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In-The-Ear/Canal

- Easier to insert
- Mild to severe losses
- May actually be more noticeable than BTEs



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Thin tube/Open Fit

- Nearly invisible
- Much smaller behind the ear
- Ear feels open
- Sometimes hard to insert



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Technology: What's inside

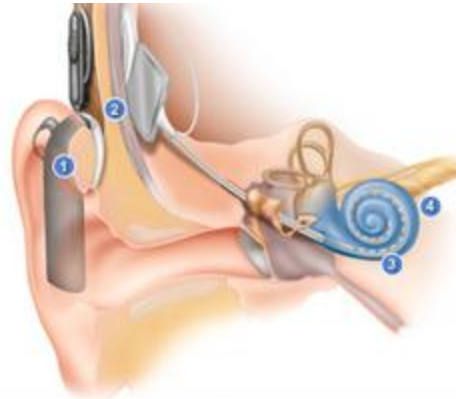
- Typically 4 tiers
- Vary in terms of:
 - Noise management
 - How automatic they can be
 - How flexible the software is for the audiologist
 - How does the aid work with other devices?
 - Ear-to-ear communication
 - Tinnitus sound therapy
 - Spatial processing

Technology: Things to keep in mind

- Understand realistic expectations
- Try not to get too lost in comparing bells and whistles or the decision becomes overwhelming

Implantable Devices

- Cochlear implants



- An internal device stimulates the nerve with electrical impulses, which the brain perceives as sound.
- For people who obtain limited benefit from hearing aids

Implantable Devices

- Cochlear Implant Hybrid

COCHLEAR IMPLANT
Severe to profound
hearing loss



HEARING AID
Mild to moderate
hearing loss



NEW COCHLEAR HYBRID HEARING
Combining the Best of Both Technologies

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Implantable Devices

- Bone conduction osseointegrated devices for conductive loss or single sided deafness



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Assistive Devices



Any supplemental device that is not a hearing aid or implantable solution



More Tools- Assistive Devices

- Traditional examples
 - Listening devices in the sanctuaries/synagogues
 - Amplified phones
 - Flashing lights for smoke detectors
 - Telecoil loops
 - Wireless headphones for TV

More Tools- Assistive Devices

- Wireless devices designed by hearing aid manufacturers
 - Ability to hear the phone binaurally
 - Improved sound quality for TV processed through hearing aid
 - Remote microphones improve hearing in noise
 - iPhones
 - With severe or profound hearing losses, they provide access to sound in unprecedented ways

More Tools- Assistive Devices

PHONAK
life is on

Also compatible with Advanced
Bionics Naida processors



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More Tools- Assistive Devices

GNReSound Unite Accessories

Phone Clip +
Remote Control 2
TV Streamer 2

Compatible with Baha 4, and will be
compatible with the Nucleus 6 processors

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More Tools- Coping Strategies

- Better communication strategies
 - Face the speaker
 - Minimize background noise
 - Ask people to rephrase
 - Don't try to communicate from different rooms
 - Watch facial expressions and body language
 - Provide feedback on what you heard
 - **NO BLUFFING**

More Tools- Coping Strategies

- Tips for Friends and Family
 - Don't yell
 - Speak clearly
 - Minimize distraction
 - Rephrase
 - Remember limitations of hearing aids
 - Try not to chew gum
 - Remember “never mind” or “oh, forget it” can hurt feelings and lead to isolation

More Tools- Coping Strategies

- Speechreading classes
- Auditory rehabilitation therapy with speech pathologist
- Auditory training software-teaches your brain to use residual hearing to its fullest capacity
 - *LACE* by Neurotone neurotone.com
 - *Hear Coach* by Starkey app for Android and iPad
 - *Sound and Way Beyond* by Cochlear

Use Resources

- California Telephone Access Program- free amplified phones
- Hearing Loss Association of America
- American Tinnitus Association
- Better Hearing Institute
- Cochlear Action Network



The End

Thank you!!!

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