TREATING AN INVISIBLE DISABILITY

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SO MANY QUESTIONS!

- What is hearing loss?
- How is hearing loss diagnosed?
- Where do I go?
- Who can help me?
- How is hearing loss treated?
- What is hearing rehabilitation?
- Why do people dislike hearing aids?
- What are my rights as a consumer?

THE EAR

How do we hear?

HOW SOUNDS TRAVEL THROUGH THE EAR

1. Sound waves are picked up by the outer ear, which is made up of the pinna and the ear canal.

2. Sound is channeled to the eardrum, which vibrates when the sound waves touch it. The vibrations are picked up by three tiny bones known as the “hammer,” “anvil” and “stirrup,” which create a bridge from the ear drum to the inner ear.

3. The vibrations move on to the cochlea – a spiral-shaped capsule housing a system of liquid-filled tubes.

4. When the sound waves reach the liquid it begins to move, setting thousands of tiny hair cells in motion.

5. The movements of the hair cells are transformed into electric impulses that travel along the auditory nerve to the brain itself.
THE EAR IS JUST THE BEGINNING...

HEARING LOSS

COMMON SIGNS OF HEARING DIFFICULTY

“PEOPLE SEEM TO BE MUMBLING”

“It’s harder to follow a conversation in meetings, restaurants and noisy places.”

“I have difficulty hearing someone call me from behind or from another room.”
“MY FAMILY SAYS I TURN UP THE VOLUME ON THE TV TOO LOUD.”

“My family, friends or colleagues often have to repeat themselves.”

“I’m beginning to limit social activities because it’s difficult to hear or communicate.”

Why can I still “hear” if I have hearing loss?

HEARING VS. PROCESSING

- Hearing isn’t just about volume, it’s:
  - Localization
  - Spatial Orientation/Balance
  - Timing cues
  - Language development
  - Short term → Long term memory exchange

EVALUATING HEARING
THE PROFESSIONAL

OTOLARYNGOLOGIST—EAR, NOSE, THROAT

A physician specially trained to provide medical and surgical treatment to the ears, nose, throat, and related structures of the head and neck.

AUDIOLOGIST

Doctoral-level medical professional trained in diagnosing, evaluating and treating hearing and balance disorders for both adults and children.

HEARING AID DEALER

Hearing Instrument Specialist, Hearing Care Practitioner, Hearing Aid Dispenser

Licensed professional who screens hearing for the sole purpose of determining hearing aid selection.

AUD VS. HAD

Audiologist

- Doctoral degree (8 total years) required (AuD)
- State licensure required
- Board certification and/or clinical competence certificate required
- Medically trained in the diagnosis and management of hearing and balance disorders, including the fitting of hearing aids and referral to physicians for surgical intervention
- May evaluate and treat all ages

Hearing Aid Dealer

- 18-years of age, GED or greater education required
- Business license required
- Manufacturer certifications and trainings optional
- Self-trained and/or manufacturer-trained in the selection, sales, and marketing of hearing aids
- May test hearing in adults for the sole purpose of hearing aid candidacy only. No diagnosis allowed.
- Only allowed to treat adults

“SHOP” FOR THE PROVIDER

Why are you getting a “Free Test?”
- Don’t get caught up in the advertised price or sales gimmick...
- Are there other treatment options (i.e. surgical)?
- Have you been evaluated by a physician?
- What are the qualifications of the hearing healthcare professional?
- Do you feel comfortable and confident having a relationship with this professional for the rest of your life?
TYPE, DEGREE, & CONFIGURATION

How we determine your “hearing profile”?

PITCH: Frequencies from 250 Hz to 8000 Hz

LOUDNESS: Decibels (dB) from soft (0 dB) to very loud (120 dB)

AUDIOGRAM

TYPE OF HEARING LOSS

DEGREE OF HEARING LOSS

CONFIGURATION = SHAPE

BUT REMEMBER...
RECRUITMENT

- Reduce tolerance to loud sounds due to physiological damage to the cochlear outer and inner hair cells.
- Suggestions that damaged areas are cells responsible for attenuating (reducing) loud sounds.

HYPERACUSIS

- Abnormally high sensitivity to certain sounds that may or may not be loud in volume.

WHY MEDICAL CLEARANCE?

FDA says...

- "Good health practice requires that a person with a hearing loss have a medical evaluation by a licensed physician (preferably a physician who specializes in diseases of the ear) before purchasing a hearing aid.
- "The purpose of medical evaluation is to assure that all medically treatable conditions that may affect hearing are identified and treated before the hearing aid is purchased.
- "Federal law permits a fully informed adult to sign a waiver statement declining the medical evaluation for religious or personal beliefs that preclude consultation with a physician. The exercise of such a waiver is not in your best health interest and its use is strongly discouraged."

ALASKA SAYS...

- Prior medical evaluation: A hearing aid dealer who is not a physician may not sell a hearing aid unless the prospective user of the hearing aid presents to the hearing aid dealer a written statement signed by a physician stating that the physician has evaluated the user’s hearing and that the user is a candidate for a hearing aid.
- This exam must have occurred within 6 months
- If the prospective user is 18 years of age or older, the user may waive this exam by signing the following statement.
  - "I have been advised by ___________ that it would be in my best interest if I had a medical evaluation by a licensed physician before purchasing a hearing aid."
FIRST, ARE YOU TRULY A HEARING AID CANDIDATE?

- Watch and wait...
- Is the condition temporary?
  - Middle ear fluid/ear infection...
  - Hole in the ear drum...
  - Spontaneous improvement of sudden hearing loss...
- Medicine that can help?
  - See above...
- Surgical options?
  - Bone-anchored implant...
  - Cochlear implant...
  - Middle ear surgery...

BONE ANCHORED IMPLANT

- Indications: conductive hearing loss, mixed hearing loss, single sided deafness

COCHLEAR IMPLANTS

- Surgical implantation of an electrode array within the cochlea
- Purpose is to assume function of the outer, middle, and inner ear and stimulate the auditory nerve in response to sound

COCHLEAR IMPLANTS

- Useful for a specific type of hearing loss: moderately-severe to profound.
- Requires auditory training in order to obtain benefit. Most people achieve their maximum performance between 1 or 2 years after implantation.
- Often the best options for children born with little to no hearing, or for older adults who have learned their verbal language proficiently.

BEFORE MAKING AN APPOINTMENT, ASK THE FOLLOWING:

- What kind of testing do you do?
  - Do not get fooled by the “free hearing test!”
  - A comprehensive hearing evaluation should include multiple tests of the entire auditory system.
  - The FDA also strongly recommends a physician’s examination.
  - Ensure you have access to this option!
BEFORE MAKING AN APPOINTMENT, ASK THE FOLLOWING:

- Do you fit a wide range of products?
  - They should sell every style of hearing aid available.
- Do you fit multiple manufacturers?
  - Be wary of a professional that is pushing only 1 brand without discussing other options!

BEFORE MAKING AN APPOINTMENT, ASK THE FOLLOWING:

- What does the hearing aid price include?
  - Some cheaper-priced devices may not include warranties, services, and supplies. Be aware of what’s included!
- Are there walk-in services, regular follow-ups?
  - Consumer reports urge users to have access to both walk-in care and regular scheduled follow-ups.
  - The typical patient has 2 follow-up visits following the fitting with additional follow-up based on adjustment to both sound quality and routine. Regardless, make sure you get what you need!

BEFORE MAKING AN APPOINTMENT, ASK THE FOLLOWING:

- Can I get a copy of my test results?
  - Absolutely!
- Do you bill insurance?
  - Always be aware of your benefits!
  - Most insurances require medical necessity that can only be obtained from a medical professional.

SELECTION

BEFORE MAKING AN APPOINTMENT, ASK THE FOLLOWING:

- Objective:
  - Hearing Loss degree and configuration,
  - Speech discrimination,
  - Experience,
  - Anatomy,
  - Medical history...

- Subjective:
  - Lifestyle and listening needs,
  - Budget,
  - Patient comfort:
    - Dexterity,
    - What are interested in?
STYLE

ALSO CONSIDER...

- Rechargeable vs. Batteries...
- Direct Bluetooth connectivity...
- Accessories...

TECHNOLOGY

Hearing aid features

<table>
<thead>
<tr>
<th>Feature</th>
<th>What does it do?</th>
<th>How does it help?</th>
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<tbody>
<tr>
<td>Comfort</td>
<td>Helps to reduce discomfort and improve speech clarity.</td>
<td>Enhances overall hearing experience.</td>
</tr>
<tr>
<td>Electroacoustic</td>
<td>Amplifies sound and assists in understanding speech.</td>
<td>Improves understanding of speech in noisy environments.</td>
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<tr>
<td>Specular damage</td>
<td>Reduces the risk of damage to the tympanic membrane.</td>
<td>Protects against potential hearing loss.</td>
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<tr>
<td>Visible noise</td>
<td>Reduces visible noise, improving the hearing aid's aesthetic appeal.</td>
<td>Enhances the wearer's confidence.</td>
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<tr>
<td>Feedback management</td>
<td>Allows for better control over feedback suppression.</td>
<td>Reduces feedback-related issues.</td>
</tr>
<tr>
<td>Tonal</td>
<td>Helps to maintain tonal accuracy during amplification.</td>
<td>Improves speech perception and clarity.</td>
</tr>
<tr>
<td>Directional microphones</td>
<td>Captures sound from specific directions.</td>
<td>Enhances the hearing aid's ability to isolate speech signals.</td>
</tr>
<tr>
<td>Bone-anchored hearing aids</td>
<td>Transfers sound vibrations to the skull.</td>
<td>Provides a stable hearing solution for those with severe hearing loss.</td>
</tr>
<tr>
<td>Drying</td>
<td>Keeps the hearing aid dry, extending its lifespan.</td>
<td>Reduces maintenance costs.</td>
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The information provided is a general overview of hearing aid features and their benefits. For specific recommendations, it is advisable to consult a professional audiologist.
MANUFACTURERS

YES, YOU NEED TWO!

WHY BINAURAL?

- Better localization – the ability to tell where sounds are coming from
- Better hearing in background noise
- Better sound quality ("mono" versus "stereo")
- Better hearing for soft sounds
- Less strain/fatigue on you while listening
- Listening balance – you won't be turning your "good" ear
- Higher success and satisfaction – studies indicate people who wear two hearing aids are much more satisfied with their hearing aids

HOW TO BE A SUCCESSFUL HEARING AID USER

3 Easy Steps
1) COMMIT!

2) BE REALISTIC!

3) COMMUNICATE!

TELL ME ABOUT PRICE...

BUNDLED VS. UNBUNDLED

- What is included in the price?

- Bundled:
  - 3-year repair warranty, which includes
  - Batteries (maximum three 40-packs per year)
  - All domes, wax filters, and additional storage cases
  - Office visits for adjustments, cleaning, and counseling, real-ear testing
  - 3-year, one-time loss & damage insurance with $300 deductible per ear

- Unbundled:
  - Warranty cost...
  - Service/appointment cost...
  - Walk-in cost...
  - Supply cost...

INSURANCE COVERAGE

- Government Services:
  - Medicare = NOTHING! (But check your supplements!)
  - Medicaid = 100%
  - CAIHC = 100% coverage
  - TriCare for Active duty and Dependents = 100% coverage (AK is considered "overseas")
INSURANCE COVERAGE

Private Insurance:
- Aetna = Varies
- School district, ASEA, Electrical, Meritain, Local 73, Pogo Mine, Kinross Gold, AK Care (employee and retiree), Assurant Health
- BCBS = Varies
- Slope Premera, UAF Premara, WPAS/Local 302, Foundation Health (FMH)
- BCBS Federal = $2500 ($1250 per ear per 3 calendar years)

ADDITIONAL RESOURCES

- Lion's Club
- Division of Vocational Rehabilitation
- HearNow (Starkey)
- Quota Club
- CareCredit/Medical Loans
- Gifted hearing aids...

WHAT ABOUT THIS DEVICE IN THE MAGAZINE?

Low-cost alternatives...

PSAP VS. HEARING AID

Personal Sound Amplifier (PSAP)
- NOT regulated under the FDA, because they are NOT intended to treat, diagnose or cure hearing impairment and do not alter the structure or function of the body.
- Simple structure: microphone, amplifier, speaker, battery.
- Provide slight "boost" (~8 dB) to enhance environmental sounds.
- No regulation on level of sound being presented by device.

Hearing Aid
- Strict regulation under FDA as a "medical device."
- Complex structure: multiple microphones, antennae, processors/amplifiers, sensors, digital computer chip, frequency specific channels, and speaker options.
- Amplification and compression are prescribed based on person’s hearing loss, physiology, and demographics.
OVER-THE-COUNTER

- When? 2-3 years out...
- A lot to discuss and work into the Bill...
- Who is a candidate? Mild hearing loss
- How do I know I have mild hearing loss?
- Who can help guide me?
- Is the hearing healthcare model getting missed?

WHY OTC?

- Research is always ongoing regarding the low rate of hearing aid adoption and issues of affordability...
- Confounding the affordability dilemma is the lack of standardization regarding third-party coverage of hearing aids, with many insurance companies—including traditional Medicare—refusing to pay for the devices.
- Additionally, in countries where hearing aids are provided to patients at low or no cost, hearing aid adoption rates show only slight improvement over those in the United States.

WHAT'S OUR PLAN?

THANK YOU!

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