

The Best Hearing Technology For Usher Syndrome

SHANNA DEWSNUP, AU.D. CCC-A

DOCTOR OF AUDIOLOGY & FOUNDER OF HAPPY EARS HEARING CENTER





BIO

- Dr. Shanna Dewsnap is an audiologist and mother of an adult child with Type II Usher Syndrome. She has spoken extensively about hearing loss and is an expert in hearing technology. She has also spoken extensively on Usher Syndrome to audiology doctoral students at the universities in Arizona and early interventionists. Dr. Dewsnap has been the motivational keynote speaker for two large conferences, sharing her own personal parent journey through her child's hearing loss diagnosis and the impact it has made in her life.
- Dr. Dewsnap founded Happy Ears Hearing Center with her husband, Kevin, in Arizona. They have a merged family with 5 children. Her oldest son Brenden, who is now 21 years old with approximately 5 degrees of central vision, is an accomplished piano performance major at Grand Canyon University and lives on campus with 'Diesel', his seeing eye dog.

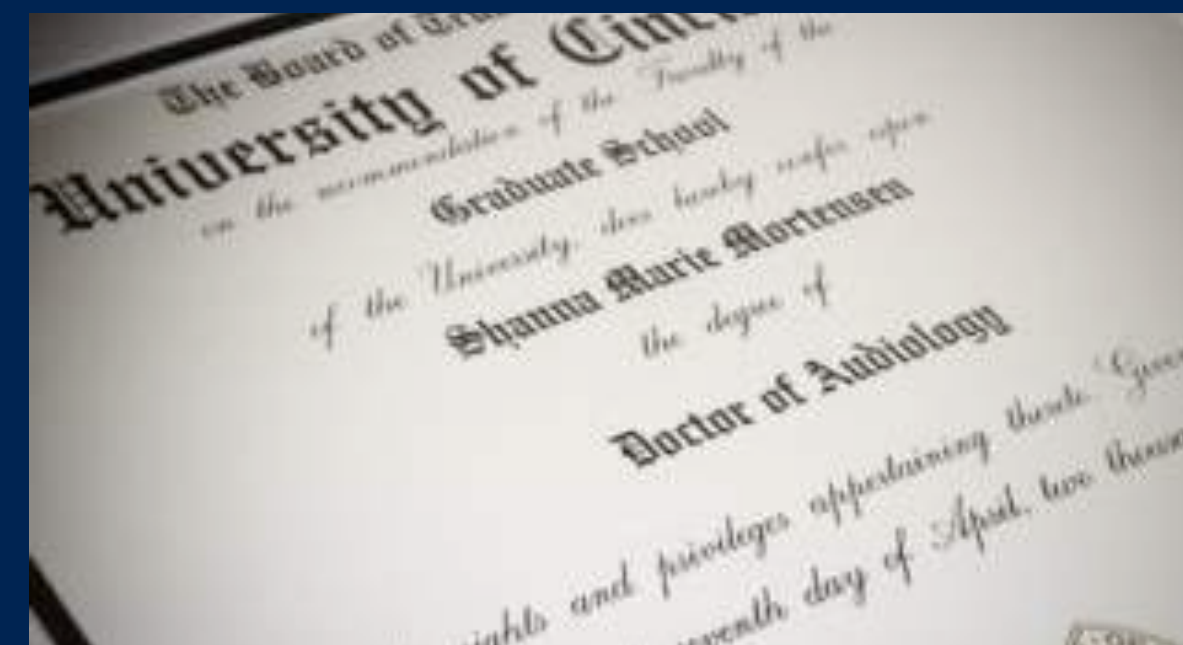


DISCLAIMER

- I am not affiliated or being paid by any manufacturer for any of my recommendations in this presentation. This information is based solely on what I have personally to be the most successful when treating individuals with Usher Syndrome.



Did You Know...



- Most people don't know the difference between an Audiologist (Au.D.) and a Hearing Instrument Specialist (HIS or BC-HIS)
- Most Audiologists are doctorate level clinicians who have completed approximately 8 years of education and are highly trained in hearing loss. They have studied syndromes associated with hearing loss as well as the science and acoustical properties of the cochlea.
- A Hearing Instrument Specialist is also known as a hearing aid salesman. In some states they are only required to have a GED and are not required to have any educational training in hearing loss. In most cases they apply for a license after meeting basic requirements to sell a hearing aid.

Why Is This Important.....?

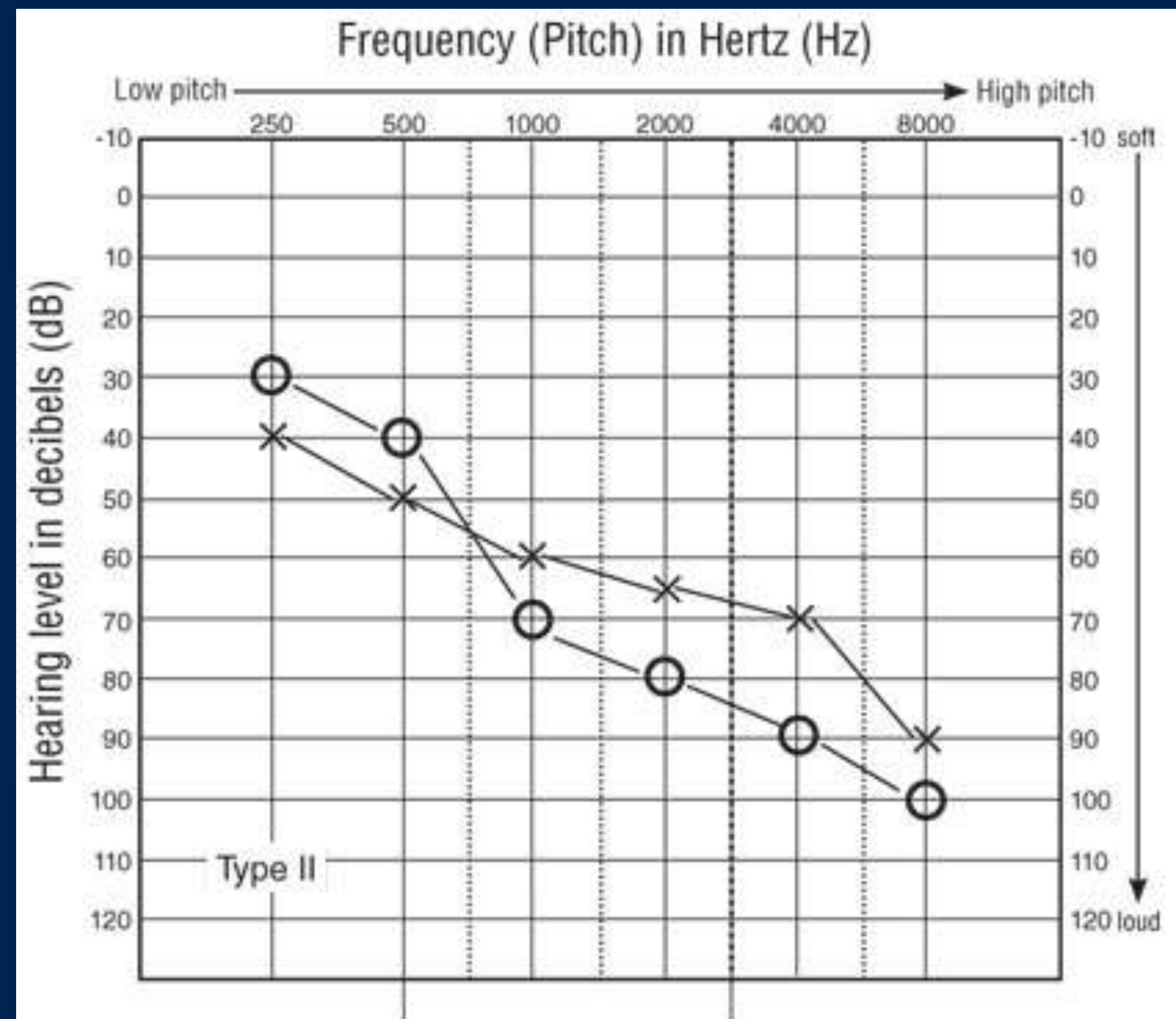
Being Able To Hear Is Important

- So many people are fit inappropriately with amplification and are sold something that they don't need or that isn't appropriate for their hearing loss or hearing needs
- Real Ear Verification is very important when someone is fitting aids.
- Programming hearing devices for individuals with Usher Syndrome is different than programming hearing devices for someone who has normal vision.
- Accessories really enhance the quality of sound for individuals who wear hearing aids or use cochlear implants
- Being able to hear what is going on around you and not just in front of you is important when you have Usher Syndrome.

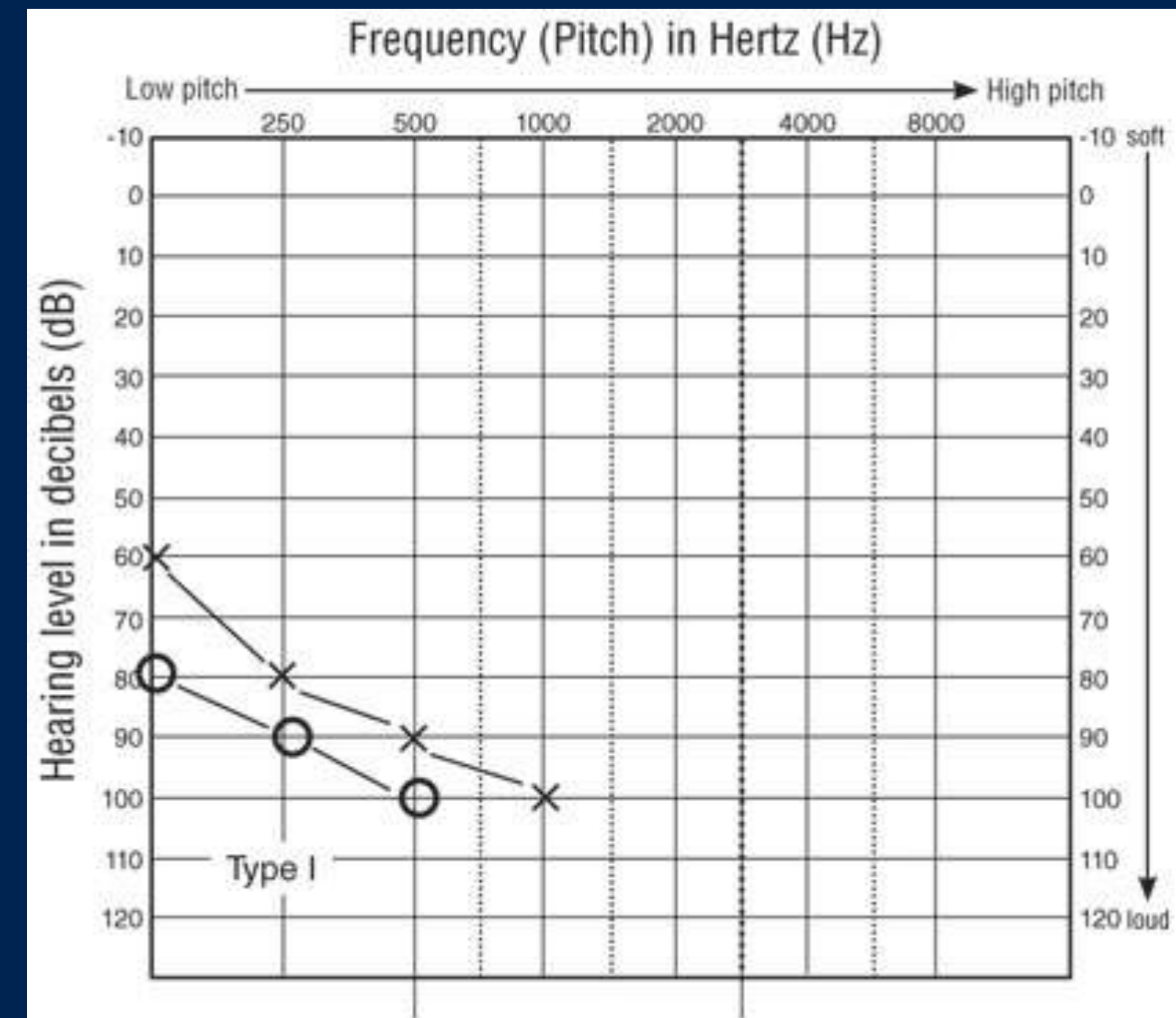


Different Types Of Hearing Loss Require Different Treatment Options

MODERATE TO SEVERE
(HEARING AID USER)



PROFOUND
(COCHLEAR IMPLANT USER)



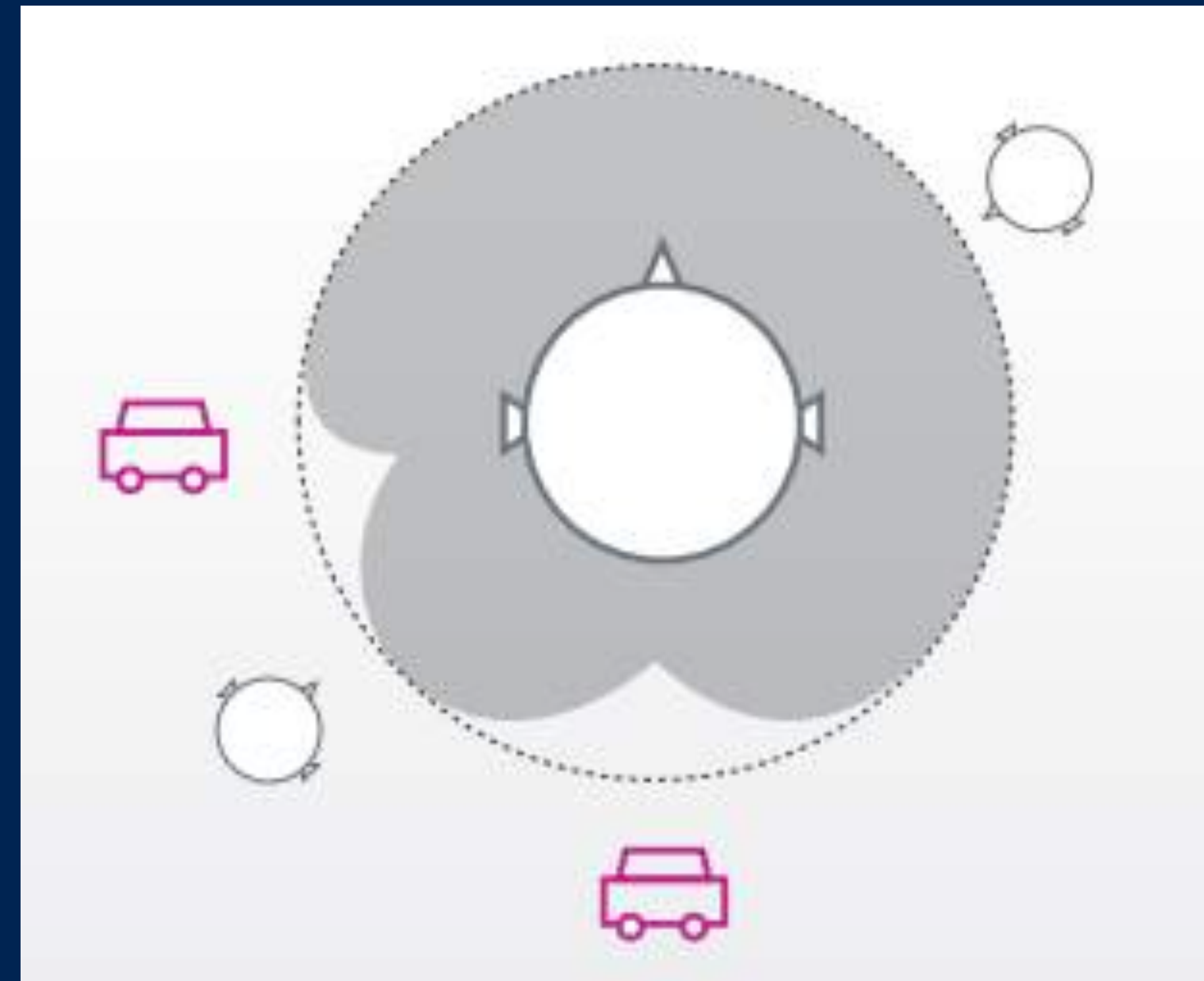
Not All Programming Is Equal

- With Usher Syndrome and vision loss, being able to hear around you is very important. Hearing aids have built in noise reduction features and automatic focus features, which are great for those who can see normally, but not always great for those who are visually impaired.
- Imagine you are walking on a busy street and your hearing aids or cochlear implant shifts itself into Directional Mode (Purple area in picture 1). You would lose the ability to hear if someone was walking up behind you or cars approaching in a certain direction.



Omni-Directional

- No Imagine if you were walking on a busy street and someone behind you was trying to get your attention, or maybe someone on a bike or skateboard was coming up quickly behind you. You would want to be aware of your surroundings.
- Hearings and cochlear implants can be programmed to have certain programs be in what is called “omni-directional” mode. The gray area (picture 2) shows that the hearing aids are still picking up sounds in the environment around the individual.
- This is important for safety reasons, especially when you have vision loss.



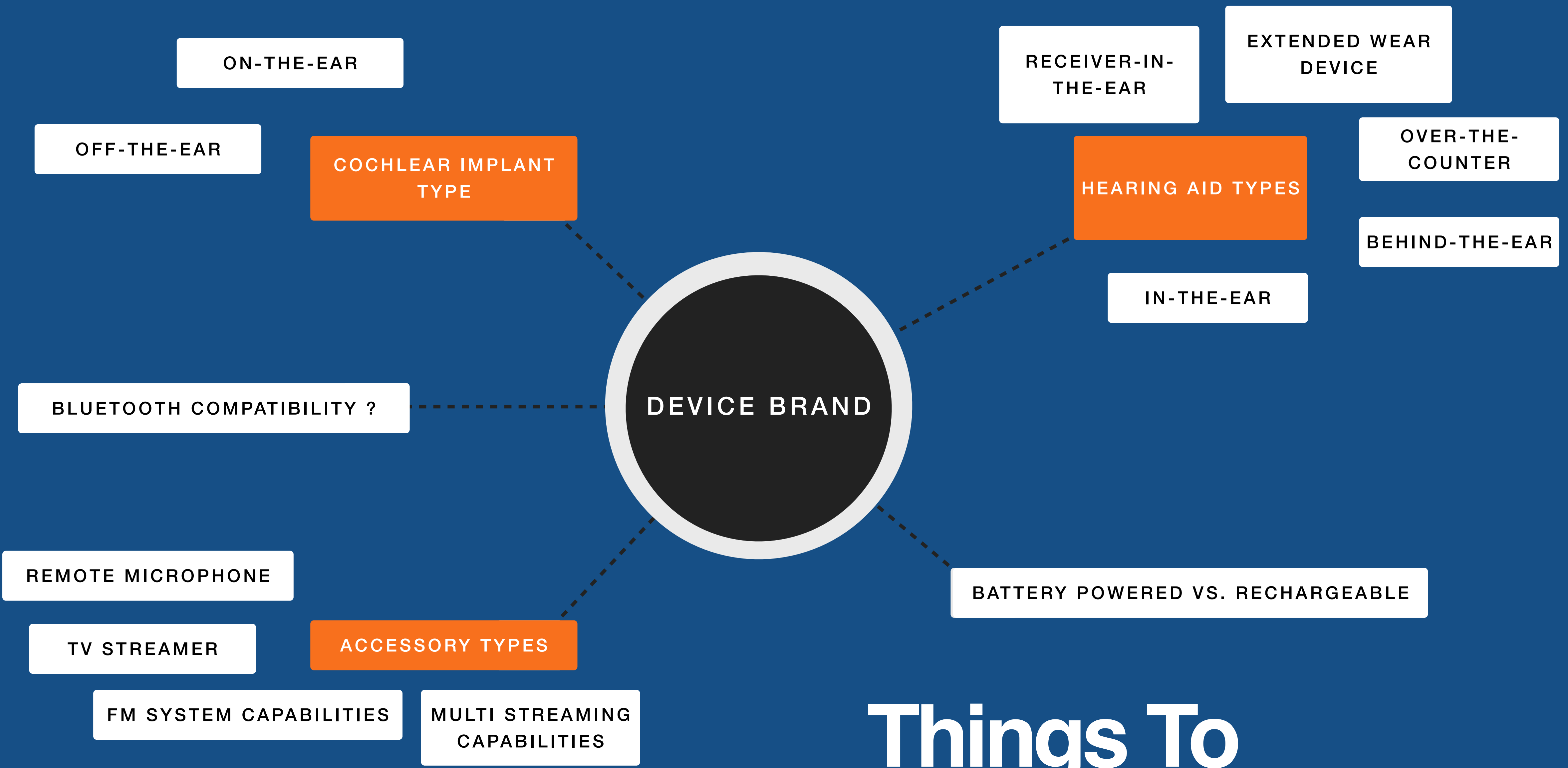
Make Sure You Know Your Audiologist

- A lot of hearing providers program hearing aids based on the “first fit” algorithm in the hearing aid software. This basically means that the hearing aids are programmed to an average volume level and are not specifically set up for your hearing loss and the shape of your ear canals.
- Make sure you are going to someone who uses real ear verification when programming your hearing aids. This type of verification requires them to put a probe microphone down in your ear canal while they are programming your hearing devices.
- If they are performing this test, you should be sitting in front of a speaker and listening to speech babble or a passage that talks about “Carrots are part of the parsley family”. This is the most important part of fitting a hearing aid because it is the only way to have it programmed accurately for your hearing loss.
- Make sure your provider understands Usher Syndrome and the programming requirements for someone who has vision loss. Just setting your hearing aids to an average target is not doing you any favors
- For those of you who use cochlear implants, this is not something that would be done for a mapping, but if you wear a hearing aid on the other side they may do it.



How Do I Know What Is Best For Me?





Things To Consider...



Common Hearing Loss Complaints

- I can't hear well in noisy environments
- I can't hear conversations in the car
- I don't always hear dialogue on TV or watching movies
- I can't understand certain family members
- I feel left out of conversations
- I can't hear in the pool
- I don't always hear safety sounds
- People sound muffled
- I don't really know which direction sounds are coming from
- I feel isolated
- I feel exhausted at the end of the day
- I'm nervous to go to parties or restaurants
- I have constant ringing in my ears
- I mis-hear people



Cochlear Implants





MINI MIC 2+

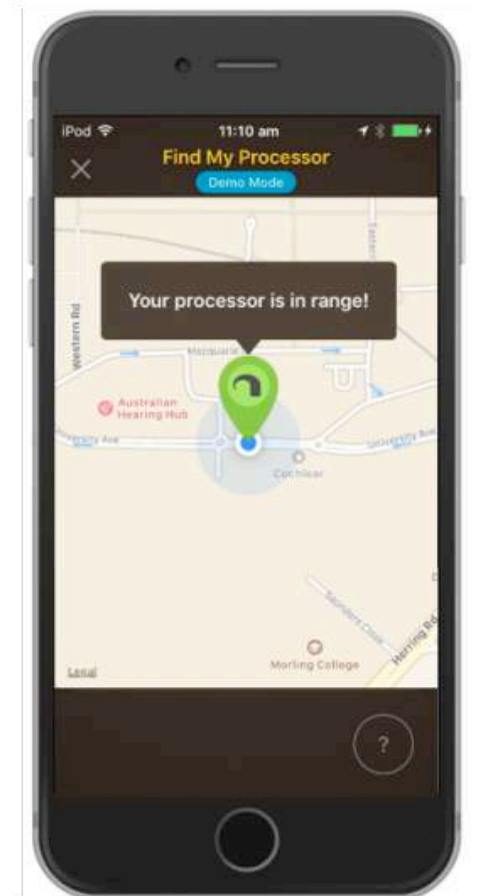
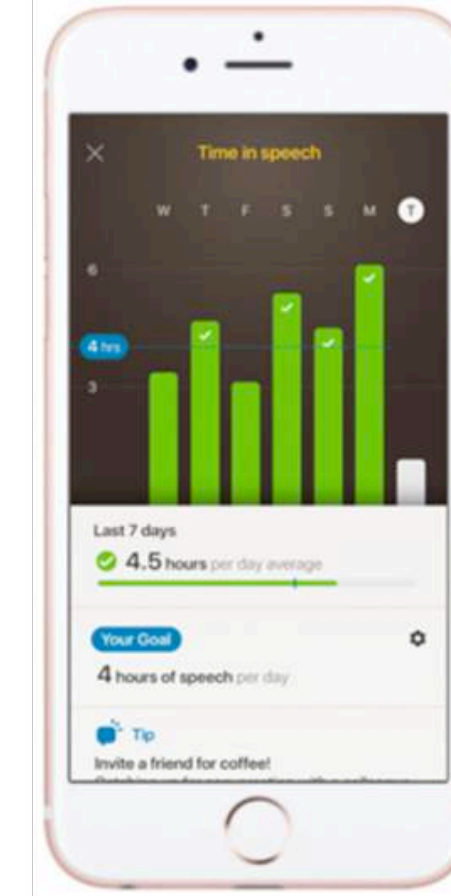
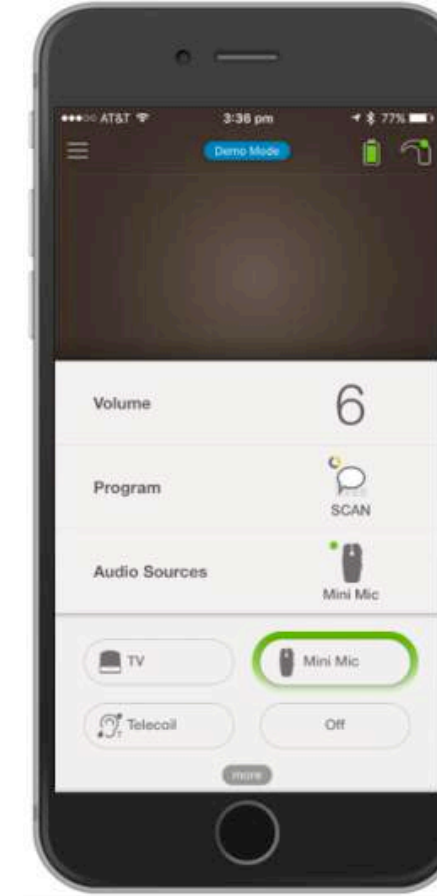


PHONE CLIP



TV STREAMER

REMOTE CONTROL



NUCLEUS SMART APP FOR IPHONE

NUCLEUS 7
ON-THE-EAR
PROCESSOR



- Dual Microphones
- Made for iPhone
- Nucleus Smart App
- Slimmer and smaller than previous generations

- Waterproof with Aqua+³
- Rechargeable or disposable battery
- FM System Compatible
- Bimodal with certain ReSound Hearing Aids



OFF-THE-EAR



REMOTE ASSISTANT



MINI MIC 2+



PHONE CLIP



TV STREAMER



REMOTE CONTROL

- Nothing sitting on the ear
- Dual Microphones
- Compatible with True Wireless Devices
- Remote control options only
- Uses Disposable Batteries
- Aqua+ Accessory



NAIDA CI Q90
ON-THE-EAR
PROCESSOR



- T-Mic helps use the outer ear's natural acoustic properties
- Bluetooth Capabilities
- Binaural technology
- Features automatically change environments for best performance and hearing comfort

- Waterproof with AquaCase
- Rechargeable or disposable battery
- FM System Compatible
- Bimodal with certain Phonak Hearing Aids



NEPTUNE OFF-THE-EAR PROCESSOR



WEARING ACCESSORY

- **Waterproof Processor**
- **AquaMic (waterproof microphone)**
- **Tactile controls**
- **Visual and acoustic indicators**
- **FM Compatible**



ROGER SYSTEM

- **Audio Jack**
- **Rechargeable or disposable battery**
- **Removable Controls**
- **Intellilink to prevent bilateral mismatch**



SONNET 2
ON-THE-EAR
PROCESSOR

- Auto Volume Control
- Directional Microphones
- Wind Noise Reduction
- Water Resistant Design & Waterproof with Waterwear accessory
- Rechargeable
- Audiolink (connects your phone and other devices)

RONDO 2
OFF-THE-EAR
PROCESSOR



- Wireless, Bluetooth Neckloops, hearing loops and Direct Audio Input
- Auto Volume Control
- Water Resistant Design & Waterproof with Waterwear accessory
- Rechargeable
- Wireless Charging
- Wireless, Bluetooth Neckloops, hearing loops and Direct Audio Input

MED  **EL**

Cochlear Implants With Hearing Aid Components



Top 4 Hearing Aid Brands For Individuals With Usher Syndrome





STARKEY
LIVIO EDGE AI

CAN BE MADE FOR
SEVERE TO PROFOUND HL
WITH ABSOLUTE POWER
INTEGRATED RECEIVER



Livio Edge AI is compatible with OrCam® MyEye2 or OrCam MyReader2 for people who are blind, visually impaired or have reading difficulties. Attach the OrCam device to your glasses and the smart camera will take a picture of the text or object in front of you and stream the audio directly to your hearing aids. *Compatible with Livio Edge AI hearing aids only.



REMOTE MIC +



TABLE MIC

- Moderate to profound hearing loss
- Rechargeable option
- App control
- Remote Control
- Remote programming / Telehealth appointments
- Streaming Capabilities with tap controls
- Bluetooth capabilities
- Translation app
- Transcribe conversation into text that can be saved



OPN S BTE PP
MODERATE TO PROFOUND HL



XCEED SP & UP
SEVERE TO PROFOUND HL

- Moderate to profound hearing loss
- Size 13 Battery
- Direct Connectivity
- FM Capabilities
- Remote programming / Telehealth appointments
- TV Streaming with accessory
- Telecoil
- Hands Free calls with connect clip



CONNECT CLIP



TV STREAMER



NAIDA M-SP

MARVEL
DEVICES



ROGER
SELECT IN

- Moderate to profound hearing loss
- Size 13 Battery
- Direct Connectivity
- Hands Free Calls
- FM Capabilities

PARTNER MIC



- Remote programming / Telehealth appointments
- Roger doubles as TV Streamer
- Roger adjusts to surrounding noise levels and adjusts the mic to focus on the speaker



ANDROID, IPHONE AND
BLUETOOTH COMPATIBLE



ENZO Q



MINI MIC 2+



PHONE CLIP



TV STREAMER

- Moderate to profound hearing loss
- Size 13 Battery
- Direct Connectivity and streaming
- Hands Free Calls with Phone Clip+
- FM Capabilities
- Remote programming / Telehealth appointments
- Bimodal Capabilities with Cochlear brand implants
- App controls

ANDROID, IPHONE AND
BLUETOOTH COMPATIBLE

Success With Hearing Devices

- There are many options for hearing technology and additional accessories that really enhance sound quality and listening ability
- The hearing healthcare provider you see is the most important part of your success with hearing devices
- If you wear hearing aids, make sure the audiologist you are seeing is performing Real Ear verification when fitting your devices and offering you accessories
- For cochlear implant recipients, make sure you go in for your annual check-ups and ask questions on the newer technology and accessory options



Questions?

- Please email me any questions you have about technology..

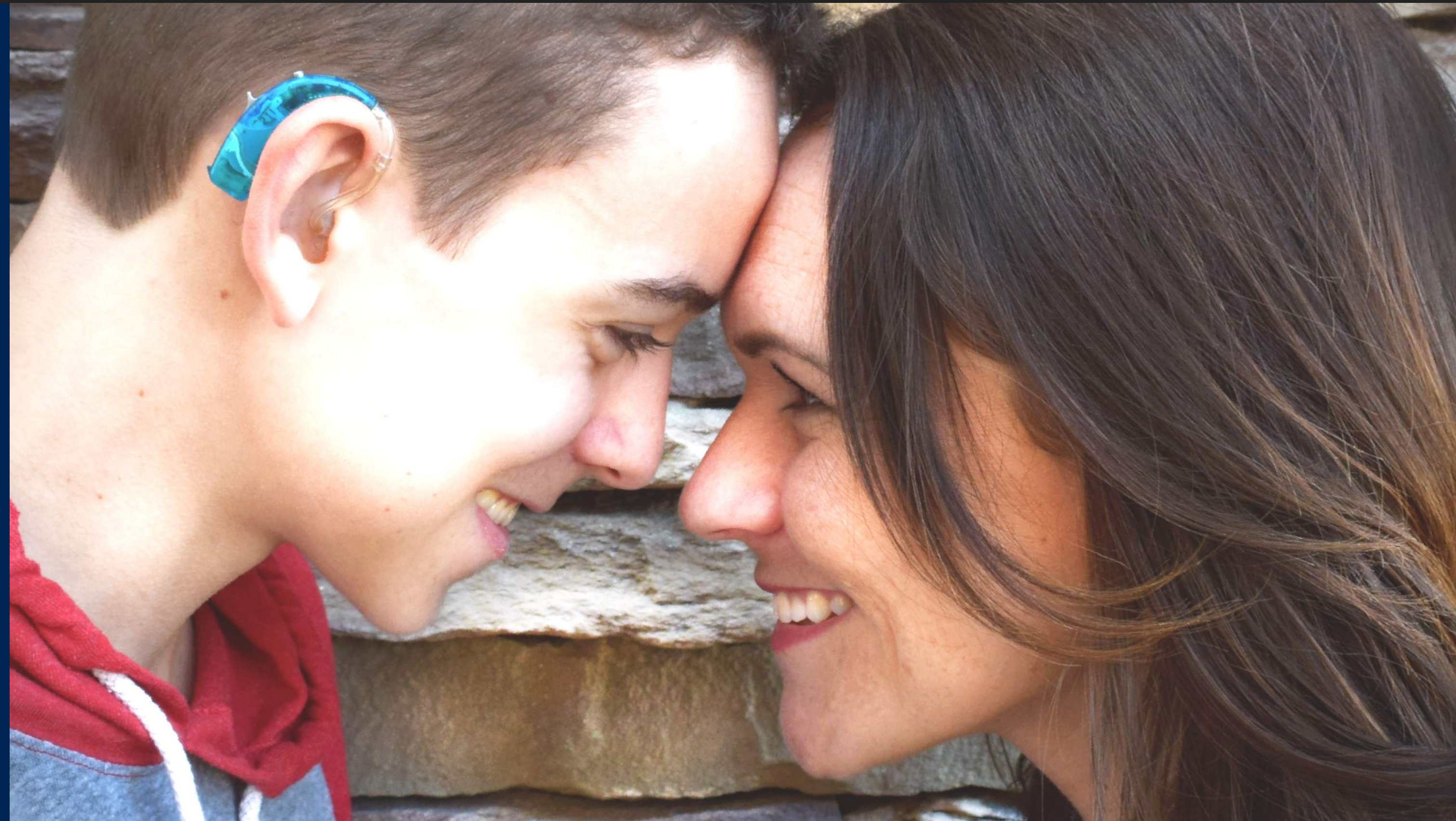




<https://www.linkedin.com/in/shanna-dewsnup-au-d-96901a63/>



<https://www.happyyearshearing.com/>





Resources:

<https://www.cochlear.com/>

<https://advancedbionics.com/>

<https://www.medel.com/en-us>

<https://www.starkey.com/hearing-aids/livio-artificial-intelligence-hearing-aids>

<https://www.oticon.com/>

<https://www.phonak.com/us>

<https://www.resound.com/en-us/>