



The Basics of Hearing Loss

And Implications for Classroom Access

ML, LG and MZ
James Fitzgerald Elementary
Waltham Public Schools



Clarke Mainstream Services



Overview

- **Who are your students?**
- **What is hearing loss?**
- **Cochlear Implants/Hearing Aids**
- **HAT System**
- **Hearing Loss in the Classroom**





Who we are and what we do?

- Support mainstream teachers in teaching a student with hearing loss.
- Ensuring that all listening equipment is in working order and being used properly.
- Developing auditory skills with the student.
- Developing self-advocacy skills related to hearing loss with the student.
- Filling in language gaps the student has due to hearing loss.
- More!



Information about Your Student

ML hearing loss is:

- Profound in both ears.
- With her cochlear implants, she has hearing levels in the mild hearing loss range.
- Word Understanding
 - In quiet 76%
 - In noise at a distance – 5%
- Uses a Phonak Roger HAT system



Information about Your Student

MZ's hearing loss:

- Bilateral mild to moderately-severe sensorineural hearing loss
- Wears two hearing aids
- Utilizes a Phonak Roger HAT system



Information about Your Student

Logan's hearing loss:

- Bilateral, mild-moderate sensorineural hearing loss
- Wears two hearing aids
- Utilizes a Phonak Roger HAT system





What is Hearing Loss?





Hearing loss is:



Always a loss of loudness

Hello!



Usually a loss of clarity

Hello!



A loss of parts of information

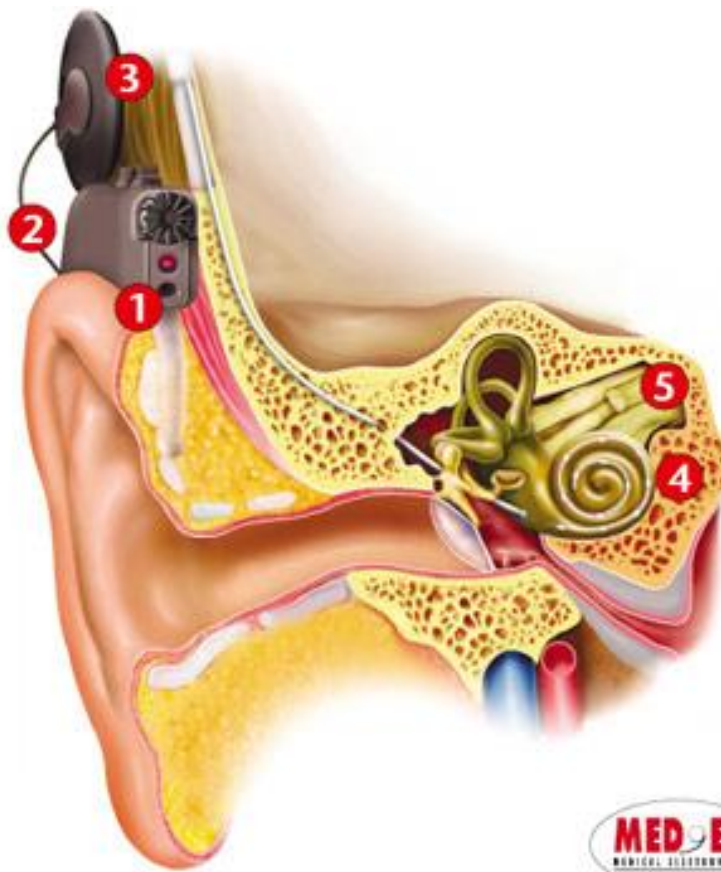
HELLO!

__udy __or a __or__ _e__ on __u__day



Cochlear Implant

- 1 Sounds are picked up by the microphone.
- 2 The signal is then "coded" (turned into a special pattern of electrical pulses).
- 3 These pulses are sent to the coil and are then transmitted across the skin to the implant.
- 4 The implant sends a pattern of electrical pulses to the electrodes in the cochlea.
- 5 The auditory nerve picks up these electrical pulses and sends them to the brain. The brain recognizes these signals as sound.



What does a Cochlear Implant Sound Like?



Hearing Aids

- Acoustic signal
- Listening through a microphone
- Louder, not always clearer!



Usage of the HAT System



- Used during **all** instruction time including small group work.
- Microphone needs to be **6-8 inches** from speaker's mouth.
- Needs to be muted at appropriate times.





Daily Listening Checks

- What is it and why is it important?
- Ling 6 and Estabrook Sounds
 - /ah, ee, oo, m, sh, s, t, p, h, f, silence/
- Check with HAT system
 - Ask a non- yes/no question!
- Check throughout the day



Hearing Loss in the Classroom



<http://www.youtube.com/watch?v=ln8NHZVfJkQ>



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It's hard for me to hear when



- Background noise
- Teachers facing the board during instruction
- Multiple peers talking at the same time
- Distance from the teacher
- Lack of visual access





Accommodations

- Use of HAT system during instruction and multimedia presentations
- Closed captioning
- Preferential seating
- Acoustically-treated classrooms (carpeting, hush-ups)
- Lights on during instruction
- Information presented orally/visually
- Providing an alternate place for students to work if necessary



Strategies for Teaching Students with Hearing Loss

- Obtain the attention of the student before giving directions (student's name, class call signal)
- Repeat questions/comments from other students in the classroom
- Break down multi-step directions (or write them down!)



Strategies for Teaching Students with Hearing Loss

- Comprehension checks **AFTER** directions/content is presented
 - What did you hear?
 - What do we do next?
- Provide correct language models!
- Pre-teaching/post-teaching of vocabulary, new academic concepts
 - Carry-over to other content areas to reinforce, when possible!



Directions and Troubleshooting Tips

- See attached forms for
 - How to troubleshoot when hearing aids, cochlear implants or HAT system isn't working
 - How to connect multiple students and multiple transmitters during assemblies, group speech sessions, etc...





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