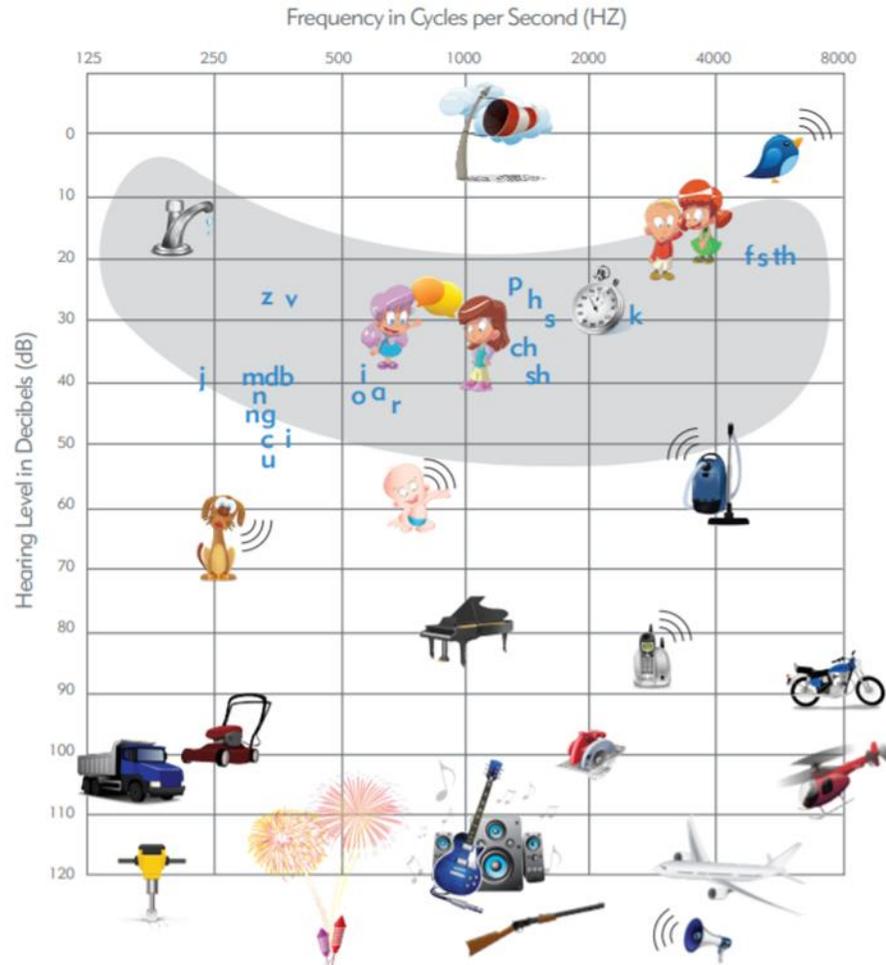


Getting to Know Your Student with Hearing Loss

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(Student's) Hearing Loss



- ▶ Bilateral = both ears
- ▶ Asymmetrical = different in each ear
- ▶ Right = Profound (>90dB)
- ▶ Left = Moderate rising to mild sloping to moderately severe
- ▶ Sensorineural = involves the inner ear

Impact of Hearing Loss

- ▶ Ability to understand speech in the classroom will be affected by background noise and distance from the speaker.
- ▶ May have difficulty socializing in noisy environments (lunch room, recess, group work).
- ▶ May miss parts of words, even with cochlear implant and hearing aid.
- ▶ May miss information and not know they missed it.
- ▶ Require frequent checks for understanding.
 - ▶ “What were the directions?” or “What are you supposed to be doing?”
- ▶ DM system should be used in every educational setting.
- ▶ Keep in mind listening fatigue.

Cochlear Implants and Hearing Aids

Do

- ▶ CI's: Change sounds into electrical impulses
- ▶ HA's: Amplify sound
- ▶ Improve hearing in quiet settings
- ▶ Maximize speech sounds

Don't

- ▶ Restore hearing to normal like glasses help with vision
- ▶ Filter background noise

Cochlear Implant - Cochlear N6



Microphones and
microphone protectors

Indicator light

Upper button

Lower button

Earhook

Serial number



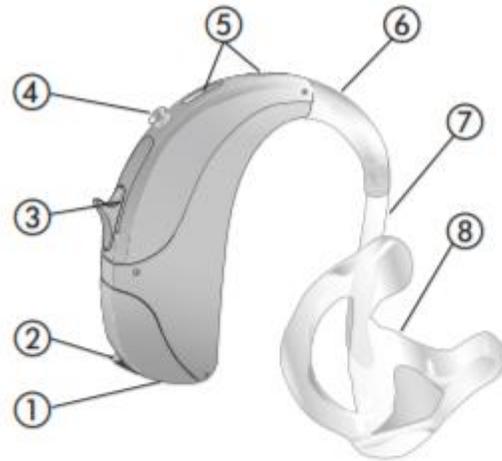
Coil
Coil magnet

Coil cable

CP920
Processing unit

Compact
rechargeable
battery module

Hearing Aid - Phonak SkyQ50-SP



- ① Right or left indicator (right=red, left=blue)
- ② Battery compartment with ON/OFF switch
- ③ Volume control
- ④ Program button
- ⑤ Microphone inputs with Wind and Weather Protector
- ⑥ Hook/sound output
- ⑦ Hearing tube
- ⑧ Classic earmold (detachable)

What is a DM system?

- ▶ A wireless assistive listening device
- ▶ Allows the speaker to transmit his or her voice directly to the child's cochlear implant and hearing aid.
- ▶ Consists of a transmitter microphone and receivers that attach to the cochlear implant and hearing aid.



Why use DM?

- ▶ Improves speech recognition.
- ▶ Allows speaker's voice to “cut through” background noise. (Does not amplify voice.)
- ▶ Allows student to have more seating options.
- ▶ Helps to keep the student “on task.”
- ▶ May help with self-esteem. Reduced need to ask for clarification.
- ▶ Can be connected to technology. (computer, SMART Board, tablet)

How to use DM

- ▶ Attach receivers to cochlear implant and hearing aid.
- ▶ Power on transmitter.
- ▶ Place transmitter next to receivers and press “connect”
 - ▶ Student should hear “beep” to confirm connection.
- ▶ Place microphone ~ 6 inches from mouth.
 - ▶ Be Aware: Scarves, clothing, or jewelry can rub against mic.
- ▶ Press “mute” whenever speaking to someone other than the student.
- ▶ The transmitter should travel with the student throughout the day.
- ▶ Use connection cables to connect to SMART Board or other technology.
- ▶ Charge transmitter and remove receivers at the end of the day.



Pass-around Mic

- ▶ Press the On/Off button on the side of the mic for 3 seconds.
- ▶ The indicator lights will blink green as it powers up.
- ▶ Handheld - The speaker holds the mic near the mouth when speaking. The indicator light will shine green when the voice is picked up.
- ▶ In the stand - The mic can be placed in its stand. Place it on the desk in front of the speakers.
- ▶ If the mic is laid on the table, it will automatically mute (indicator light will blink red).
- ▶ To switch off, press the press the On/Off button for 3 seconds. The indicator lights will blink green until powered off.
- ▶ Charge at the end of every day.



Listening Check: Cochlear Implant

- ▶ Should be completed every morning and/or anytime the student reports a problem.
- ▶ Attach ear buds to auxiliary port.
- ▶ Speak into the cochlear implant (aahh, ooo, eee, sshh, sss, mmm) listening for:
 - ▶ Pops
 - ▶ Distortion
 - ▶ Cutting in and out
 - ▶ Weakness
 - ▶ Clarity



Listening Check: Hearing Aid

- ▶ Should be completed every morning and/or anytime the student reports a problem.
- ▶ Attach hearing aid to listening stethoset via the earmold.
- ▶ Speak into the hearing aid (aahh, ooo, eee, sshh, sss, mmm) listening for:
 - ▶ Pops
 - ▶ Distortion
 - ▶ Cutting in and out
 - ▶ Weakness
 - ▶ Clarity



Listening Check: DM

- ▶ Attach receiver to listening ear buds.
- ▶ Sync transmitter to receiver.
- ▶ Speak into transmitter mic. (aahh, ooo, eee, sshh, sss, mmm)



Listening Check: DM

- ▶ Attach receivers to hearing aid.
- ▶ Sync transmitter to receivers.
- ▶ Speak into transmitter mic. (aahh, ooo, eee, sshh, sss, mmm)



Listening Check: 6-Sound Test

- ▶ After checking equipment, have student put on cochlear implant and hearing aid.
- ▶ Stand behind student.
- ▶ Tell student to repeat each sound.
- ▶ Vary the order of sounds each day and add in some words.
- ▶ Record correct and incorrect responses on chart.
- ▶ Ling 6-Sounds represent speech sounds at various frequencies.

Ling-6 Sounds daily check

Name: _____
Uses:
 A cochlear implant only
 A hearing aid only
 Both a cochlear implant and a hearing aid
Distance tested at: _____ Presentation Level: _____
 Noisy situation OR Quiet situation

	ah	m	oo	sh	s	ee
Week of:						
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						
Week of:						
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						
Week of:						
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						
Week of:						
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

Modifications and Accommodations

- ▶ Allow preferential seating.
 - ▶ In clear view of the teacher.
 - ▶ Away from background noise sources.
 - ▶ Allow student to relocate.
- ▶ Always face student when speaking.
- ▶ Do not stand in front of light sources.
- ▶ Speak clearly and in a natural tone. Don't speak too fast.
- ▶ Always call on a students by name so that attention can be directed toward him or her.
- ▶ Repeat student questions and comments.

Modifications and Accommodations

- ▶ Allow for extra wait time.
- ▶ Provide visuals whenever possible.
- ▶ Repeat or rephrase when necessary.
- ▶ Check for understanding frequently.
 - ▶ “What did you hear me say?” or specific comprehension questions
 - ▶ NOT “Did you hear me?” or “Do you understand?”
- ▶ Allow for listening breaks.
- ▶ Post routines.
- ▶ Pre-teach content.

Modifications and Accommodations

- ▶ Reduce background noise and reverberation:
 - ▶ Use carpeting or place tennis balls on bottom of chairs.
 - ▶ Break up flat wall surfaces with bookcases, bulletin boards, or fabric.
 - ▶ Close classroom door to reduce noise from hallway.
 - ▶ Avoid playing music when student is expected to listen to a speaker.
 - ▶ If possible, allow student use of FM transmitter during cooperative learning activities OR allow student's group to work in a quieter setting.

Role of the Teacher of the Hearing Impaired

- ▶ Provide direct instruction to promote development of auditory, language, and self-advocacy skills
- ▶ Consult with the team/answer questions about hearing loss and amplification equipment
- ▶ Monitor hearing technology or provide loaner DM equipment
- ▶ Model presentation techniques
- ▶ Inform school team and parents on student progress

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