So you have a kid with hearing loss on your caseload....

Presented by:
Annie Minske – Deaf and Hard of Hearing
What you will leave with:

* Knowledge of the types of hearing loss
* Basic understanding of hearing aid technology
* How to read an audiogram
* Criteria
* Understanding and implications of (basic knowledge)
* How to check a hearing aid
* Where to find more information / resources
TYPES OF HEARING LOSS

* Conductive
* Sensorineural
* Mixed

* Auditory Neuropathy
* Cortical hearing loss
SENSORI-NEURAL LOSS -

Occurs when there is a problem in the inner ear or with the neural pathway that carries sound to the brain. This type of loss is permanent and more severe than other types of loss.

CAUSES:

- diseases during pregnancy
- heredity
- childhood diseases (mumps, measles, chicken pox)
- viral infections (meningitis, encephalitis)
- prolonged high fever
- physical damage to head or ear
- exposure to excessive or intense noise (loud music, gunfire, etc.)

This type of loss can generally be helped with a hearing aid or a cochlear implant, but these devices do not restore normal hearing. Persons using these devices often need auditory training.
**CONDUCTIVE LOSS** -

Occurs when there is a problem in the outer or middle ear. This type of loss can usually be reduced or eliminated through medical and/or surgical treatment.

**CAUSES:**

- infections that fill the middle ear with fluid
- ruptured ear drum
- interference (such as a build-up of ear wax)
- deformity in the ear structures
- damage caused by a foreign object (i.e. a pencil, stick, hairpin, bean)
- missing or occluded (obstructed) ear canal
- allergies

It must be remembered, however, that in young children periods of congestion caused by middle ear infections can result in delays in language and speech acquisition.
Other Types of Hearing Loss

Auditory Neuropathy
A type of hearing loss in which the outer hair cells within the cochlea are present and functional, but sound information is not faithfully transmitted to the auditory nerve and the brain properly.

Cortical Deafness is a form of sensorineural hearing loss caused by damage to the primary auditory cortex. Cortical deafness is an auditory disorder where the patient is unable to hear sounds but has no apparent damage to the anatomy of the human ear.

NOT a Hearing Loss but comes up….
Auditory Processing Disorder
1/22 infants born in this country have some kind of hearing problem

1/1000 have severe to profound hearing loss

83/1000 school-age children in the US have an “educationally significant hearing loss” (National Dissemination Center for Children with Disabilities, 2003)
INVISIBLE

*PRIZE!
AUDIOGRAM OF FAMILIAR SOUNDS

FREQUENCY IN CYCLES PER SECOND (HZ)
FREQUENCY IN CYCLES PER SECOND (HZ)

HEARING LEVEL (dB HL)

10

NORMAL HEARING

20
<table>
<thead>
<tr>
<th>FREQUENCY IN CYCLES PER SECOND (HZ)</th>
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<tbody>
<tr>
<td>125</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>LOW PITCH</td>
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<|---|---|---|---|---|---|---|
| HIGH PITCH |      |      |      |      |      |      |

Spelling Test

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10.
Spelling Words through Simulated Hearing Loss above 1000 Hz

Audiogram of Familiar Sounds

Frequency in cycles per second (Hz)

Hearing level (dB HL)

Click on Speaker to Present Spelling word.
Spelling Words through Simulated Hearing Loss above 1000 Hz

AUDIOGRAM OF FAMILIAR SOUNDS
FREQUENCY IN CYCLES PER SECOND (HZ)

Click on Speaker to Present Spelling word.
Spelling Words through Simulated Hearing Loss above 1000 Hz

Click on Speaker to Present Spelling word.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

AUDIOGRAM OF FAMILIAR SOUNDS
FREQUENCY IN CYCLES PER SECOND (HZ)
AUDIOPHONOTRION OF FAMILIAR SOUNDS
FREQUENCY IN CYCLES PER SECOND (HZ)

1. Shoe
2. Tree
3. Math
4. Desk
5. Snack
6. Miss
7. Test
8. Thumb
9. Fish
10. Spill

Click on Speaker to Present Spelling word.
Hearing Aid / Technology

- Behind the ear Hearing aids (BTE)
- In the Ear Hearing Aids (ITE)
Hearing Technology Cont.

* Cochlear Implants
* Bone Anchored Hearing Aids

*PRIZE!
FM SYSTEMS

* “Room” Systems

* Personal System
Must meet in section A – hearing loss

Then must meet in either B, C, or D

- NOT all sections, but one of those sections

Criteria can be found here:
https://www.revisor.mn.gov/rules/?id=3525.1331

NOTE: A child who meets DHH criteria cannot have a primary label of SLD. As the hearing loss may be the cause of the learning disability.
FUN ACTIVITY!

May I have 2 volunteers?? 😊
{hmmmm there might be a prize for that!}
IMPLICATIONS OF HEARING LOSS

Social Implications
- friends
- communication
- examples

Academic Implications
- phonic skills
- writing
- processing is slower
- theory of mind and figurative language

*See additional Handout
Checking a Hearing aid

* Do a visual inspection
* Clean any wax out using cerum removal tool
* Clean earmold (audiowipes)
* Check battery
* Reinsert battery, or put in new battery
* Use stethoset to listen to hear aid

* VIDEO / demo of checking hearing aid.

*PRIZE!
RESOURCES:

Your DHH TEACHER! 😊

Your best resource for evaluations, helping with criteria, understanding hearing loss, support services, etc.

WEBSITES!

2. [http://www.asha.org/](http://www.asha.org/)
   - Materials Exchange has some good activities!
   - Go to the bottom of the page and find the listening room. Login and create a free profile, access to articles and materials

Google: DHHS: Deaf and Hard of Hearing Services
Every encounter is either positive or negative.

Every interaction you can give life, or you can drain it. There is no neutral.

Remember these words each and every day you enter that school building – with students, staff and parents.