Online Session 3

Aural Hab: Child

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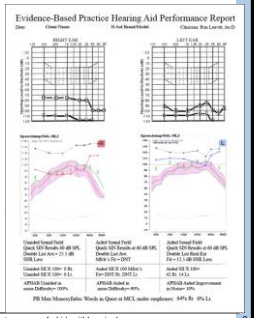
Supporting Success for Children with Hearing Loss

This Week's Learning Objectives
You will be able to …

1. Describe the purpose and interpretation of DSL
2. Demonstrate appropriate fitting of hearing aids on young children, including verification/validation
3. Describe funding options for hearing aids and working with public/private agencies to obtain
4. Describe issues related to working with families and hearing aid fitting for unilateral hearing loss

Purpose and Interpretation of DSL

- **Why and how: AAA Pediatric Amplification Practice Guidelines**
- **Techniques for fitting and verification**
- **Webcast: Understanding Children's Aided Hearing Using the DSL Approach**
- **Interpretation: A Time-Efficient Method and From Hearing Aid Benefit**
- **Practice in Lab!**



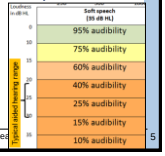
Specifics to Keep in Mind when Fitting Hearing Aids on Children

- WRDC results in better speech recognition in quiet and noise for pediatric hearing aid users
- Children with hearing loss require greater audibility (20 dBHL) and frequency bandwidth (8-10KHz) to achieve equivalent levels of speech recognition as typical peers
- Underfitting hearing aids on children is rampant!!!
- Need to allow 'head room' for changes in hearing.
- Directional mics can be a disadvantage in school as a child may not always be able to orient to look at speaker
- Limited data on fitting advanced/new hearing aid features on children. Verify fittings to collect efficacy evidence. ALWAYS allow for FM use. Must, must, must validate!
- Using Manufacturer recommended settings may severely limit a child's audibility. *Ryan McCreery' work*

http://www.audiologyonline.com/articles/pediatric-hearing-aid-verification-innovative-913

Red Flags Summary

- If a child is not making appropriate progress there is a reason and we need to figure out why – as a team.
- Acoustic access to intelligible speech is critical to develop the the auditory brain – strive for 20dB HL aided thresholds.
- Performing word discrimination in quiet is insufficient to determine if a child can really use hearing to process soft speech. Need to perform WDS at 35 dB in quiet and +5S/N
- Family/child need to be getting therapy support for listening and language development from an experienced person
- Specific issues:
  - Child resists wearing the aid
  - Poor response to high frequency stimuli
  - Distorted speech (vowels, dropping consonants)
  - Any dramatic change in performance



Red Flags Summary

- Recognize if the child's speech lacks age appropriate consonant sounds
- Confirm that the hearing devices are working
- Ensure that the child is
  - **Hearing throughout the frequency range**
  - **Hearing soft speech**
  - **Hearing in noise**

When in doubt, change it out!
Try a different aid

Model of Child Aural Habilitation

Assessment

Define the impact of the hearing loss on life function
Under what situations is the child's ability to function impaired?
When/how will participation be restricted?
Talk about abilities not dB

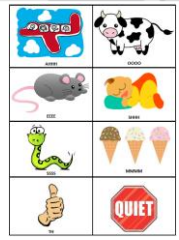
Personal Factors – Skills
- Language use/communication
- Socialization skills
- Psychosocial/self-concept
- Additional Learning Challenges

Environmental Factors
- Speech perception under varying conditions
- Ability to attend / fatigue
- Speechreading benefit
- Accommodations currently in various environments

Get the Data

The Ling Quick Check!

- Commonly used to check for speech perception
- Close and distant, no visual cues
- A gross check – not really enough to assume clear perception of all consonant sounds - *VALIDATION*



Ling Sounds & Formant Spectrum

LING SOUND	1ST FORMANT	2ND FORMANT	3RD FORMANT	4TH FORMANT
OO	200-500	650-1100		
AH	525-775	825-1275		
EE	150-450		2300-2900	
SH			1500-2000	4500-5500
S				5000-6000
TH				6000
M	250-350	1000-1500	2500-3500	

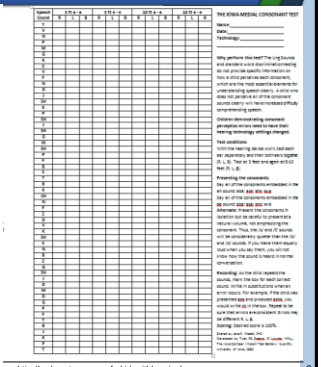
LING SOUND	125 HZ	250 HZ	500 HZ	750 HZ	1000 HZ	1500 HZ	2000 HZ	2500 HZ	3000 HZ	3500 HZ	4000 HZ	4500 HZ	5000 HZ	5500 HZ	6000 HZ
OO															
AH															
EE															
SH															
S															
TH															
M															

Iowa Medial Consonant Test

- **Test conditions: Quiet setting needed!** With the hearing device worn, test each ear separately and then both ears together (R, L, B). Test at 3 feet and again at 8-10 feet (R, L, B). Listening only, no visual cues.

Presenting the consonants:
Say all of the consonants embedded in the ah sound: aba; asa; ata; ava
Say all of the consonants embedded in the ee sound: ebe; ese; ete; eve
Alternate: Present the consonants in isolation but be careful to present at a natural volume, not emphasizing the consonant. Thus, the /s/ and /f/ sounds will be considerably quieter than the /b/ and /d/ sounds. If you make them equally loud when you say them, you will not know how the sound is heard in normal conversation.

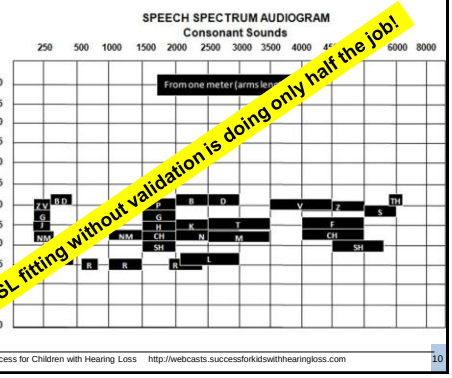
- **Recording:** As the child repeats the sounds, mark the box for each correct sound. Write in substitutions when an error occurs. For example, if the child was presented asa and produced asha, you would write sh in the box. Errors may be different R, L, B.



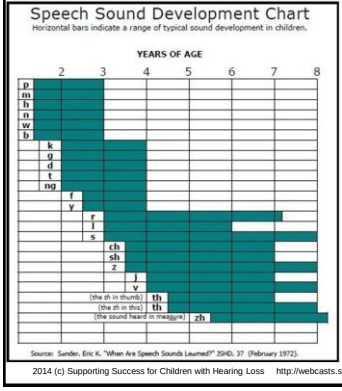
Interpreting Errors – Validation!

Look for a pattern in the errors. Consider the formant relationships.

Adjust the aid program frequency response as needed for 100% correct.



Make It Yours



You have a patient with a moderate to severe hearing loss who will be starting preschool (age 4) that you haven't seen for 6 months. Her speech still sounds 'mushy' and isn't easy to always understand. What do you make sure you do/consider as part of your evaluation?

The Necessity for Teaming

From Educators (DHH teachers, ed auds, SLPs):

- "His new hearing aids aren't letting him repeat all the Ling Sounds and he is getting frustrated in school. We've collected performance data and showed it to Mom. She allowed me to call the audiologists but the audiologist says the aids are set correctly and the audiologist seemed angry at the data we were sharing. Mom feels overwhelmed at idea of confronting the audiologist."
- "When we went to put the FM on her we found out that the audiologist selected hearing aids without the option for FM. Now we will have to provide school hearing aids and FM so she loses out on consistent hearing throughout each day."
- "The child has outgrown the earmolds and really can't wear the aids until he gets new ones. The next audio appointment is in 5 weeks. He's beginning to think he can 'get by' without using hearing aids at all."

The Best Way to Handle Red Flags: Team Work!

We need professionals who:

- Like kids
- Can keep the child motivated and engaged
- Are willing and motivated to learn
- Are willing and able to modify as needed to learn more about the child (think outside the box)
- Investigate their observations and collect data
- **Realize that no one person has all the answers**
- Seek and encourage collaboration
- Look for solutions, not excuses
- Put aside ego to always act in the best interest of the child

How to Talk to Colleagues/Team

- **Be collegial**
- **Believe that everyone wants to help**
- **Share information on a regular basis**
- **Be very clear about concerns – provide data**
- **Do not ask parents to transmit concerns – make the hard call**
- **Follow-up with colleagues and indicate results of changes (better?)**
- **Say "Thank you"**

Funding Options for Children's Hearing Aids

State Funding

- Funding will vary from state to state
- Medicaid typically covers children's hearing aids but may limit the cost. Cost will be for hearing aid only, no mark-up
- Some states provide mandatory insurance coverage
- In some states the state Part C early intervention program will fund hearing aids (and FMs)

Other sources of funding

- **Parent Funding Handbook** http://www.cohandsandvoices.org/docs/parFundkit.pdf

List of National Funding Sources

- AV Hunter Trust, Inc
- Communications for the Deaf and Hard of Hearing
- Hear Now Program (Starkey Hearing Foundation)
- The Hearing Foundation
- The HIKE Fund – Hearing Impaired Kids Endowment
- Miracle Ear Children's Foundation
- Quota International
- United Health Care Children's Foundation

This is a partial list. Private funding for state residents may also be available.

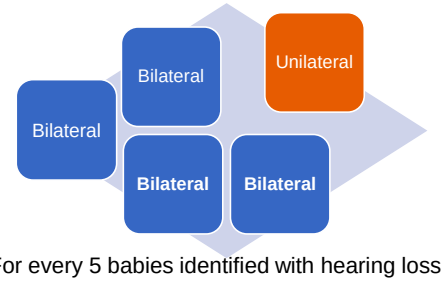
Local Sertoma clubs are also a viable option.

Parent Advocacy

- "Once the Human Resources department is educated and informed about the circumstances unique to childhood hearing loss, the cost/benefit analysis makes covering hearing aids an easy sell"
- We wrote a letter to our Human Resources department explaining the benefit of hearing aids and how pre-emptive, preventative care is more cost effective than corrective speech therapy. Our audiologist also gave us a letter with similar recommendations to corroborate and bolster our position. Thankfully, the company responded promptly and favorably adjusting the benefit from $800/ person lifetime maximum (yes, that didn't even cover one aid!) to $10,000/year.
- Our insurance denied our claim for hearing aids because we didn't use an in network provider. We wrote an appeal letter stating that our pediatric audiologist was the only provider for children in the 70 mile area, and explained the expected number of times we would have to return for ear mold revisions and hearing aid/hearing testing in the next year based on our child's diagnosis and history. The decision was overturned. http://www.cohandsandvoices.org/docs/parFundkit.pdf

Unilateral Hearing Loss

Relative Prevalence by Laterality of Hearing Loss



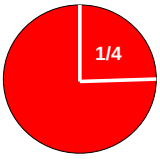
For every 5 babies identified with hearing loss there is 1 with unilateral hearing loss.

CDC EHDI 2009 based on 3920 identified of which 805 had permanent UHL

How many kids?

- Depending on definition of hearing loss, 0.4 to 3.4 per 1000 newborns and up to 6% of school-age children
- PERMANENT HL = 2-5 per 1000 children
- Single-sided deafness = 1-5 per 1000
- Summary = approximately 3 per 1000 children

Hearing does not always stay the same.



It appears that one out of every four children with one normal hearing ear **will develop hearing loss in their better hearing ear.**

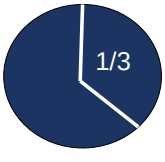
This appears true for the children normal looking ears, not those born with a deformed ear. We cannot predict which children will end up having permanent loss in both ears!

UHL Language Outcomes

- Unilateral - total language score mean of 91.78
- Almost 10% lower than 'average' development
- Converting scores to age equivalent gives an average language delays of 6 months for children with a unilateral impairment
- Children with unilateral impairments showed a variable performance which was not correlated with severity of impairment or side of impairment

Study by the Developmental Disabilities Institute
Wayne State Univ, Detroit MI

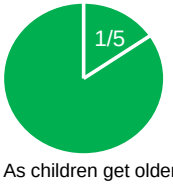
Potential impact of hearing loss in one ear on language learning



Evidence of at least a 6 month average delay in total language, 1/3 have more delay

As many as one out of every three children with only one good hearing ear develop delays in the number of words they say by the time they are 15 – 18 months old.

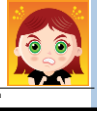
Potential behavior & social issues



As children get older they may think that other people are talking about them when they really just did not hear what was said, especially by peers.

Children with unilateral hearing loss may find it hard to hear directions and soft speech. That can lead to frustration and poor behavior.

One out of five children develops behavior or social issues.



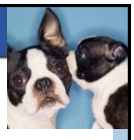
UHL and Disadvantages to Listening

- **Poorer ability to listen and localize sound in noisy environments**
  - Lack of *head shadow effect* as sound goes around the head, making sound from one side 6.4 dB quieter by the time it reaches the other side – substantial effect when listening in noise
  - Lack of advantage using 2 ears together to minimize the effects of background noise and reverberation (*binaural squelch)*

UHL and Disadvantages to Listening

- **Poorer ability to listen and localize sound in noisy environments**
  - Lack of 'additive' listening with 2 ears providing a 3-6 dB advantage (*binaural summation)*
  - Lack of tiny time differences perceived between ears that allow people to localize direction of sound (*interaural time and intensity differences)*

Effects of UHL on Children's Listening Behaviors

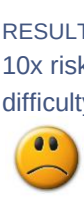


- More difficulty localizing sound than
- Amount of difficulty increases with the degree of hearing loss
- Poorer performance listening at <u>any</u> noise level when the noise is toward the normal hearing ear and the speech is toward the poor hearing ear
- May also perform more poorly as compared to peers when speech is toward the normal ear and noise toward the poor ear.
- Need speech to be at a louder level than background noise (better S/N) than peers with 2 normal hearing ears

Challenges with only one good ear

- Poorer ability to listen and localize in typical classroom environments
- Research: 35% fail a grade and 15% require special educational support

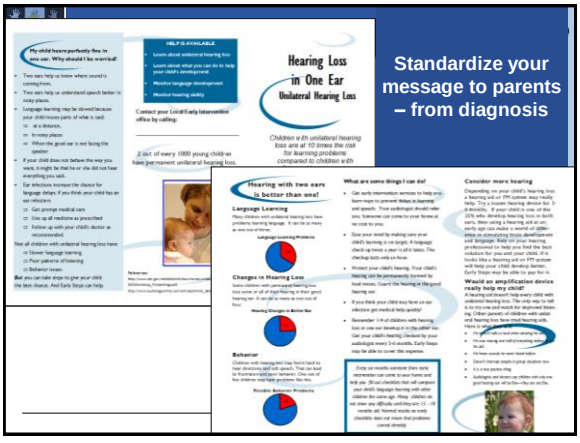
RESULT:
10x risk of school difficulty/failure



versus

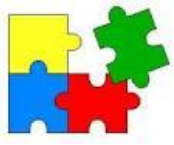
Smaller listening bubble, especially in noise or for sounds from 'bad side'

Standardize your message to parents – from diagnosis



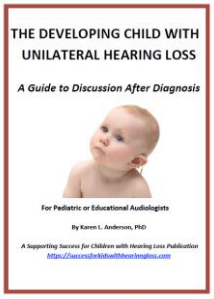
Convincing parents of importance to act

- Provide UHL brochure
- Analogy
- Earplug experience
- Consequences & choices



Disclosure

- **Developing Child with Unilateral Hearing Loss Guide for Early Intervention Providers and a version for Audiologists**
- **Uses a 100-slide PPT and 25 handouts for families**
- **Key concepts will be shared**



How bad can it be? The good ear will compensate for the bad ear, won't it?

Hearing loss is invisible and difficult to understand, especially when someone seems to hear most sounds or most times but not always.

It is very common to think that because we have two ears that if something is wrong with one ear, the other ear will do the work of two ears.

In reality, we need both ears to perform well in all listening situations.

An analogy to help us understand

Think about a child who was born with only ½ of one foot. We require two feet to equally support the weight of our bodies as we walk.

With only one normal foot, a child will still learn to walk and run, but likely not as fast or smoothly as children with 2 normal feet; especially in rough terrain or when competing in a race.

Can the one good foot really compensate for the ½ foot? No, but having only one good foot works fine in many situations.

What to expect at home

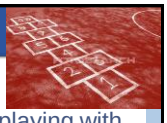
Your baby can hear normally with one ear. As you diaper him, feed him, play with him you will see him respond to sound.

He CAN hear.

You are close to him. It is quiet. He is interested in what you are doing.

Thinking about our analogy, this is like walking on flat ground with plenty of time to get where you want to go.

Rugged terrain



Think again of the child with ½ foot playing with other children in a large park with grassy areas, rocky climbing areas, and an obstacle course to jump, skip and hop.

She can play anywhere she likes with the other children, have fun and get exercise.

She will have difficulty experiencing some of the things to do at the park.

She may need to work harder, may avoid some, or may be able to do it all, only at a slower pace.

Analogies can help understanding but are not perfect

- What do you think "rugged terrain" would be for listening?
- When is it most challenging to listen, even with 2 ears?
- When one foot does not work as well as the other foot there would be times when a child may have some problems. Can you think of when that would be?
- Now think of hearing. What kinds of situations would it be more difficult if you had problem hearing everything well?

A foot and ear are not the same

The analogy of the child with ½ foot is a starting place to understand that 2 ears are really needed, and one ear cannot do the job of two ears.

There is at least one big difference as we think about the child with only one normal foot and your child with only one normal ear – listening is strongly tied to the ability to learn at home and at school! A foot problem will likely not impact learning.

You need to experience it yourself

Buy foam ear plugs at the hardware store or drug department of a large store.

Be sure to insert it correctly so it causes a 30-35 dB hearing loss.

Be ready to record your thoughts as you try the different activities.

Make a commitment to yourself to wear one earplug for at least 3 hours.

You need to experience it yourself

Activities to do in your 3 hours:

1. **Spend time talking quietly with someone with the television on in the background.**
2. **Have someone talk to you from another room or from across a large room**
3. **Use some of the *ELF* listening activities**
   a) when you are not looking at them
   b) when you are reading or doing something you really enjoy or that interests you
   c) with and without background noise.

Think about it

How much effort did it take you to listen?

How did background noise affect your ability to pay attention and easily understand what was said?

What was the difference between having a conversation within a few feet and from across the room, outside or in the car?

Remember – you already have developed language and have the ability to 'fill in the blanks' if you miss part of a word.

Rugged listening terrain

So "rugged listening terrain" would be any situation in which listening is not easy, specifically:

DISTANCE &

BACKGROUND NOISE.

Every day listening with 2 ears

Hearing is a distance sense

We monitor what is going on around us with our hearing.

Think about all you hear right now – in the room you are in, sounds from other places in the building, sound from outside.

1. Two ears working together hear just a bit better than one ear working alone.
2. We turn our heads to use both ears to locate where sound is coming from.

Language is caught, not taught!

For language to be 'caught it needs to:

1) be in the child's listening bubble,

2) be of interest to the child,

3) interactive and meaningful if a child is going to learn new words and concepts.

Listening in noise with one ear

Children with only one normal hearing ear have greater difficulty locating where sounds are coming from and understanding speech or recognizing sounds when there is competing noise.

Children with one hearing ear will need more time to locate sounds and it will take more effort to focus on sounds in background noise. They are more likely to 'tune out' in noise.

What is incidental learning?

About 80% of language is learned by 'overhearing'

With a unilateral hearing loss background noise and distance are barriers to children 'catching' all the language that occurs around them.

Children learn much of what they know from over hearing other people talking or attaching a new word and concept together.

Picture your child seeing a brown truck, hearing a knock on the door, and then a seeing a package that is for them – suddenly 'truck' or 'UPS' or 'present' has real meaning!

This is called incidental learning.

For language to be 'caught…

Language needs to:

1) be in the child's listening bubble,

2) be of interest to the child,

3) interactive and meaningful if a child is going to learn new words and concepts.

What are your real choices?

a. **Do what you can** to help prevent listening, learning and social problems by allowing your child to hear his or her best – every day, in every situation. He has a *right* to hear and to learn like other children.

b. **Hope that he will get by**, realizing that language, self esteem, and behavior are likely to be affected by the hearing loss. Will he still "be all that he can be"? Probably not, but that may be acceptable to you.

c. **Wait and see** if he will be affected, even though this will lose learning time that can never be made up. Children who wait to get hearing aid(s) until closer to school age typically do not adjust very well (see b).

Try a hearing aid.

If your child has hearing in the worse ear (i.e., thresholds between 35 – 75 dB) then it may be possible for a hearing aid to 'balance out' the child's hearing ability – meaning provide near normal hearing in the poor hearing ear. Amplification could help with sound location and listening in noise!

Children who are deaf in one ear *may* have too much hearing loss to cause improvement with a standard hearing aid.

A hearing aid! But he hears fine in one ear!

Think back to our analogy with the child who was born with ½ foot.

If there was a prosthesis (like a 'strap on foot') that would allow the child to walk gracefully with a normal gait, to run similar to, but maybe not as fast, as other children - would it make sense for the child to use it?

Would it help him as he is learning to walk? Would it help him fit in better when playing with other children because he could keep up more easily?

Hearing aid = a brain access tool

Brains develop due to constant stimulation.

With ¼ of children developing hearing loss in both ears, early stimulation of the poor ear may end up making a real difference in the child's ability to compensate if all or most hearing is lost in both ears.

Think of it as 'keeping an ear in reserve if the worst happens (and it may!).

How soon should we try a hearing aid?

The earlier a child tries amplification and gets used to 'balanced hearing' the easier it will be for him or her to adjust to hearing with both ears and want to wear the hearing aid all the time. Waiting until school-age is too late!

Make It Yours

- Early auditory brain development due to consistent access to sound is critical to share as a means of communicating urgency to act to families. Why is this still so in the case of UHL?
- Mr. and Mrs. Podmore come to you with 4 month old Emily, who has a 50-70 dB hearing loss in her left ear. You are their second audiologist. Mrs. Podmore is weepy and concerned about her daughter's future. Mr. Podmore loudly thinks that all of this attention is overkill since Emily 'can really hear.' This is clearly a source of disagreement between the two parents.

What you say in the first 30-60 seconds will likely set the tone for further listening (or Dad walking out). What are 3 things that come to mind that you would say?

Comments on Function with UHL

- Need for eye contact to aid understanding
- Challenges with communication in noise
- Difficulty:
  - Hearing a whisper
  - Listening in a large room
  - Hearing teacher with her back turned
  - Beach/pool, gym class, during sports
  - Riding in a car
  - Learning people's names
- Challenges in social situations related to above

To fit, or not to fit, that is the question

Survey results of audiologists:

- **Level below which Audiologist would not consider providing aids for UHL:**
  - 25dBHL (range from 15 - 35dBHL)
- **Level above which Audiologist would definitely provide aids for a child with UHL:**
  - 40dBHL (range from 25 to 50dbHL)

Not all audiologists think it is important to fit young children with UHL with hearing aids...

Study by the Developmental Disabilities Institute Wayne State Univ, Detroit MI

Recommendations of the Profession

- **The Pediatric Workgroup on Hearing Aid Amplification (Bess et al, 2000) summarized the literature and stated that for children with unilateral conductive or sensorineural hearing loss, amplification should be considered on a case-by-case basis, based on the child's audiometric data, development, and communication needs.**

So what are the choices to help children hear better?

1. **Traditional hearing aids**
2. **CROS hearing aids**
3. **Bone conduction hearing aids**
4. **Bone anchored hearing aids**
5. **Cochlear Implant**
6. **FM system with any of the above**
7. **Reconstruction surgery for children with atresia**

Traditional hearing aids

- **Most appropriate for children who have mild or moderate hearing loss in their poor ear.**
  - Hearing loss between 26 – 70 dB
- **Goal is to improve hearing so it is symmetrical between the ears.**
- **Traditional hearing aid with Ear Gear**

Amplification Findings for UHL

- FM systems are the only assistive technology that has been found to improve word recognition abilities in quiet and in noise for children with UHL in all listening conditions
- Early study (1994) of 6 children; 5-12 years: CROS aid and traditional hearing aids do not enhance speech understanding and may be detrimental when listening in noise

Result of No Communication

From the Field:

"I have a 2nd-grader who up until this year wore a Naida with personal FM on his "good" (moderate to severe) ear.

This year they (clinical audiologist) put a CROS on him and he's struggling.

Mom is on board with us adding a boot and going back to FM during the school day, thank goodness."

Teaming is especially important to ensure that children with UHL are receiving good benefit!

2002 Study on Aiding Children with UHL

- Audiology Dept at Children's Hospital of Philadelphia
- Candidates: UHL 25-65 dB HL
- 28 children fit with HA on impaired ear; 2-17 years
- Parent completed CHILD questionnaire and a retrospective survey
- "Parents reported that their children are hearing better, and consequently showing improvement in social and academic situations.
- Most noteworthy were the strong opinions expressed by parents who wished hearing aids had been recommended sooner. Many parents were passionate about this point."

http://www.audiologyonline.com/articles/to-aid-or-not-children-1167

Parent comments

- *16 year old son does not like the way it looks, but his face lights up when he puts it on.*
- *Hears sounds he never heard before.*
- *Doesn't talk so loud when wearing his aid.*
- *She can watch TV and talk on the phone at the same time now.*
- *Wishes she was fit years ago. Seeing how well she does now-doesn't know what she missed.*
- *Doesn't interrupt people in group situations now.*
- *Failed spelling tests during the three weeks that the aid was in for repair.*
- *Thought there would be a stigma, but there isn't..*
  More people need to know about this-these kids are falling through the cracks.
- *Audiologists and doctors say they will be fine-they are not fine.*
- *He was missing one half of everything before he got his aid.*
- *He likes his aid and keeps it on for longer periods of time.*

(17 year old reported)

I don't like the way it looks, but I wear it because I can hear better.

If I had gotten it years ago it would have been better.

Amplification Findings for UHL

- **2010 study of 12 children; 6-14 years divided into younger and older groups**
  - Younger children (6-9 years) who were fit with their first hearing aid by age 5 showed bilateral benefit in sound localization when using the aid in their poor hearing ear
  - Older children (10-14 years) who were fit at age 7 or older showed bilateral interference in sound localization when a hearing aid was used – the hearing aid was detrimental to localization

Amplification Findings for UHL

- **2010 study of 12 children; 6-14 yrs divided into younger and older groups**
  - Early intervention was linked to bilateral benefit
  - Children's ability to localize improves with time, with or without hearing aids (i.e., children learn to rely on spatial cues)

So, if a hearing aid is going to be fit to a child with UHL, it should happen in Early Intervention. Waiting until kindergarten will likely result in rejection.

Hearing Aid Wear Patterns

- **2000 – 35 children with hearing aids; parent rating.**
  - Children with UHL wear their aid less than children with hearing loss in both ears
  - Children with 26-70 dB UHL accepted their hearing aids while children with 71-90+ dB UHL did not (i.e., BAHA / CI candidates)
- **2002 – 31 children with UHL, age 1-10 years**
  - 81% with 26-70 dB UHL used the aid
  - Those with 71-90+ dB loss reported little/no use

Comments from the Field

- I see one student with a Sophono with UHL. Her speech perception performance in noise with the Sophono is not improved when compared with her performance without the Sophono....in contrast, her speech perception performance in noise IS improved with an ALD (ISense) on her normal hearing ear.
- She prefers the Sophono because it gives her "movement and shadow" information on her poorer-hearing side, which is important to her in social settings. The ALD receiver she had used in her normal hearing ear (Isense) was replaced with a receiver affixed to the Sophono.
- THAT arrangement does result in the same improved speech perception benefits that the other ALD arrangement had....makes sense.....she's still basically a monaural listener with the Sophono alone, so we really can't expect marked speech perception benefits....it's the ALD that can offer improved speech perception benefits in noise because speech perception is still being managed by the normal hearing ear. **VALIDATION REQUIRED!**

Comments from the Field

- I have one student using a CROS with UHL. I haven't tested her with the CROS yet, but her teacher has reported that she "hears better" with the ALD receiver (Isense) in her normal hearing ear than she does with the CROS. The student likes the CROS better because she doesn't like having "the teacher's voice in my head" all day long. The conundrum is that the CROS doesn't allow for simultaneous use of FM AND the offside microphone.
- I also have a student with UHL who uses a HA at the poorer ear (moderately severe hearing loss). Speech perception in the impaired ear is poor, but he prefers the HA to the ALD he had used (which he loved) again a "movement and shadows" thing for him.
- Both he and his teacher acknowledge that he "heard better" with the ALD, but he likes the social advantages of 360-degree listening, and says he at least knows that someone is talking on his off-side "and then I have to turn around and look at them so I can understand what they're saying".

Comments from the Field

- The theory that I'm working with right now is that every student is different, and some may need opportunities to try different technologies
  - some students don't value speech perception benefits as much as off-side listening benefits
  - that may or may not change over time
  - I've stopped deciding what will work based on speech perception performance alone, and prefer to talk with parents about UHL impact and the pros/cons of the technology options.
  - What is more aggravating for me is when MDs/audiologists make reflexive recommendations for ALDs without considering the context in which the child is listening.

Judy Elkayam, AuD, CCC-A, PASC
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Make It Yours

- You have a new patient. She is 9 years old and has a unilateral hearing loss. Mom is bringing her in because she has been crying after school.
- You find a 30-70 dB hearing loss in her right ear.
- Bilateral WDS in quiet is 100% and in +5 noise is 68%
- While you were testing her, mom completed the CHILD checklist. Scores for a 7 of the 15 CHILD items showed communication challenges (1-8 scoring range, these were scores of 2-5).
- What will you do next?

Preview for Next Week

- **Hearing Aids Lab Assignment**
- **No online session**
- **Know the AAA Pediatric Amplification Practice Guidelines**

Next Onsite Session

- **The Early Years**
  - Brain development
  - Hearing aid retention strategies
  - Speech/language development for children with HL
  - Choices in the communication continuum
  - Collaboration with early intervention
  - Case studies from Early Intervention