## Overview of Speech Therapy for Children with Hearing Loss

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### Suspecting Hearing Loss

- We are often a child's first contact with the special education world
- We can conduct basic hearing screenings for children that we suspect to have a hearing loss
  - Use standard audiometer for hearing screenings if possible
  - o If too young or non-compliant, go in a non-distracting room and have one person sit directly in front of the child to draw his attention forward. Then, play a sound behind the child and have the person in front watch to see if the child reacts in any way. Favorite toys that make noise would be good for this if the child doesn't often respond to stimuli. This is very informal but can give you at least a little information to go on

#### A Team Approach

- Audiologist: If hearing loss is present or suspected, get an audiologist on board to do formal testing and get appropriate amplification if necessary.
- Parents: Make sure the parents are included in the process and get their opinion on all treatment options. If they don't want their child to use a specific communication modality, there's no use trying to push it at school.
- **Teachers:** Make sure teachers are fully educated on any devices the child uses as well as the type of communication supports that will be used.

# Communication Modalities

- Parents get the ultimate say on which method will be used. Many times this decision is cultural so you need to respect their wishes. Here are the three main choices:
  - Auditory/Verbal Therapy/Approach: The child is not exposed to sign language or visual supports and is therefore required to rely on whatever hearing the child has left.
  - Sign Language-Only Approach: All caregivers and educators use sign language only. This approach is most often used in the deaf community where a child is able to attend a school for the deaf that uses sign language for education.
  - Combination Approaches: Uses spoken language with some form of visual support, like sign language, visual aides, or hand cues around the mouth.

#### Speech and Language Therapy

- The following recommendations come from the Royal College of Speech and Language Therapists
- Grade A recommendations have the most research backing them up while Grade C are still researchbased but with fewer or less strenuous studies
- Source: <a href="http://almacen-gpc.dynalias.org/publico/Clinical\_Guidelines%20Spech%20Therapists.pdf">http://almacen-gpc.dynalias.org/publico/Clinical\_Guidelines%20Spech%20Therapists.pdf</a>

#### Equipment Check

- In the schools, we are often the most familiar with the student's listening devices of the people that see him on a regular basis. We can assist the student by checking his/her equipment whenever we see the student.
- At the beginning of each session, the speech-language pathologist (SLP) should visually inspect the amplification equipment (e.g., hearing aids, cochlear implant) and "check the quality of the signal of hearing aids using stetaclips" (p. 54). As appropriate, the SLP should consult with other relevant professionals (e.g., teacher of the deaf, educational audiologist) (Grade C Recommendation)
- Get help from your school audiologist if you're not sure the best way to do an equipment check.

# What to Include in Therapy

- When appropriate to the child, management of hearing loss in children should include:Intervention to develop early communication skills (e.g., eye contact, initiation, turn-taking) (Grade C Recommendation).
  - Approaches to develop social and interaction skills (e.g., non-verbal communication, discourse skills, social communication skills, and compensatory strategies for communicative deficits) (Grade C Recommendation).
  - Direct or indirect strategies to facilitate the development of receptive and expressive language skills (Grade C Recommendation).
  - Environmental modifications to make language and communication more accessible (Grade C Recommendation).
  - Auditory training (Grade B Recommendation).
  - Direct treatment to improve the child's speech or sign intelligibility (Grade B Recommendation).
  - o **Speech reading** (Grade C Recommendation).

#### Social/Interaction Skills

- Conduct a full evaluation to see what deficits there are for social skills. Specifically look for:
  - Nonverbal communication (both reading it and using it)
  - Discourse Skills
  - Ability to repair communication breakdowns
- Provide direct instruction on the pieces that the child is missing
- Can do this informally by addressing it as things come up (ex: "I didn't understand that, what could you do to help me understand?")

## Receptive/Expressive Language

- Especially important if child was aided later on or doesn't have normal hearing after aides
- Conduct a formal expressive and receptive language assessment.
- Treat language problems that occur using whatever communication modalities the child is currently using. Visual aides will be helpful in teaching students new language skills that they may not be hearing but make sure to work on generalizing without the visual aides as well.

#### Environmental Modifications

- Make sure environment is set up to ensure optimal hearing for the student (reduce background noise, increase amplification, direct line of sight to teacher, reduce distance to speaker). Work with the audiologist to set this up correctly.
- Add visuals to assist the student with the pieces of language that he/she may be missing. Visual schedules and visual representations of behavioral expectations can be especially helpful.
- Train teachers on how to use any visual cues that the family has decided to use (sign language, cued speech, etc.)

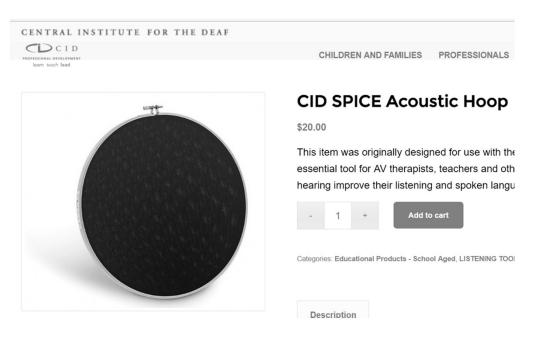
### Auditory Training

 Use speech screens to force a child to focus on the auditory input instead of relying on lip reading, etc.

https://cid.edu/professionals/shop/additional-cid-spice-acoustic-hoop/

#### **Acoustic Hoop:**

- Embroidery Hoop
- Speaker Mesh



## Auditory Training

- Start by saying a single word or sound and the child picks from a few visual choices
- Gradually increase difficulty level of this task (example: describe a simple picture with one sentence and have the child pick from two pictures, or, read a simple paragraph and have the child pick from two pictures that represent the main idea of the paragraph)
- Move toward functional listening activities where auditory input is combined with speech reading to use hearing in functional activities like conversations.

### Speech Intelligibility

- Do a full articulation and phonology assessment to determine where deficits are.
- Choose sounds or sound patterns that will impact the child's intelligibility the most
- Rely heavily on visual and tactile cues for eliciting speech sounds as auditory may not be strong
- Provide excellent feedback about how they are doing with speech sounds as they may not be able to hear when they are doing it correctly. They will rely on you to tell them when it is correct so they can associate the feel with the correct production.

### Speech Reading

- Can be used in conjunction with auditory training to help the student use as many cues as possible
- Start with teaching basic lip shapes for common vowels (don't overexaggerate)
- Then, move to speech reading single words and then phrases
- Eventually move to connected speech
- Therapy Idea: Have a set of pictures in front of the child (at first make sure they have very different lip shapes). Say one sound/word/phrase to the child at normal volume while he looks at your mouth. Do this until the child has 80% accuracy. Then, decrease your vocal volume so that the child has to rely more on the visual. Keep decreasing volume to increase speech-reading skills.

#### Additional Resources

- Speech Room News Blog Post: <a href="http://thespeechroomnews.com/2013/02/so-you-have-child-with-hearing-loss-on.html">http://thespeechroomnews.com/2013/02/so-you-have-child-with-hearing-loss-on.html</a>
- Alexander Graham Bell Association for the Deaf and Hard of Hearing <a href="https://www.agbell.org/Landing.aspx?id=562">https://www.agbell.org/Landing.aspx?id=562</a>