The Ling Six- Sound Test

Allows a quick and easy way to check and see that a child detects those sounds that lie within the **speech spectrum** of hearing.

When performed with 1 hearing aid/implant at a time, provides ear specific information for aided detection of those sounds that lie within the speech spectrum of hearing.

It allows parents, professionals, and teachers to know the child's **distance hearing or earshot.** Knowing this information has vital instructional ramifications if one intends to use audition as a viable modality of reception. *Sounds must first be detected before the brain can be stimulated.*

Frequent administration of this test and regularly charting results of the Ling 6 sound test on the Ling 6 Sound Test Record Form can help parents, professionals, and teachers monitor for hearing aid malfunction and/or cochlear implant malfunction, changes in the child's hearing, or onset of middle ear conductive involvement that would be reflected by REDUCED EARSHOT.

Test Administration

The Ling 6 sounds are /m/, /oo/, /ah/, /ee/, /sh/, /s/

*18 months of age and older:

Start out sitting next to the child about 3 inches away, and encourage the child to drop a toy or block into a container when he/she detects each sound. You may need to have parents and/or older siblings model this behavior or provide a 'hand-over-hand' facilitation for the child before he/she begins to listen and drop independently. Continue saying the sounds and gradually, one step at a time, move away from the child. Note the DISTANCE CUT-OFFS. Once you know the child's distance hearing/earshot, administer the test daily starting at about 1 foot, then move to the distance hearing/earshot cut-off. Continue to periodically check from farther distances to see if earshot has increased. Distance hearing depends on the hearing loss, hearing for that day, ambient room noise, and hearing aid efficiency. All consonants and vowels should be detected out to 20 feet and beyond with cochlear implants. For children who wear hearing aids, the /sh and s/, due to their weak acoustic energy and high frequencies, may need much closer distances for detection than vowels.

<u>*Note:</u> Some children are able to demonstrate this skill at younger than 18 months of age. Therefore, it is appropriate to begin conditioning for the "Listen & Drop" beginning between 10 and 12 months of age. Modeling and hand-over-hand guidance are essential at this age and stage.

<u>* Note:</u> Many 'brand new listeners' will initially need sounds which are louder and more interesting than the Ling Six – Sounds to get the idea of listening and responding before they can do a speech sound test. For a beginning listener who is not responding to the Ling Six-Sounds, perform the conditioning task using noise makers. Once the child has the idea, start to incorporate the Ling Six-Sounds and fade out the noisemakers.

6 months to 18 months:

Have the child sit in a high chair. An assistant will need to have "quiet toys" for the child to play with or look at to keep the child occupied. The assistant should not talk or make any sounds. With the presenter standing behind the child and out of the child's visual range, present each of the Ling 6 sounds individually. The assistant should look for any change in the child's behavior that would indicate the child has heard the sound presented (turning of the head, shifting of the eyes, quieting behaviors, etc.). The assistant should point to his/her ear and comment, "You heard that!" with great enthusiasm and excitement on his/her face. The presenter can then come around into the child's line of vision and reward them by repeating the sound and saying, "You heard that, I said _____." The assistant should then regain the child's attention with the quiet toys, so the next Ling 6 Sound can be presented.

6 months of age and beginning listeners of chronological age 0-5 years:

Hold the child close to you with the child's best ear, or cochlear implant nearest you. Sing the Ling 6 Song to the tune of "Wheels on the Bus", while rocking the child back and forth. Include siblings and other family members by using "hand cueing" or "toy cueing" to encourage them to repeat the Ling 6 sounds as presented in the song. This will act as a model for the child and will help to acoustically highlight the Ling 6 Sounds for the infant. Props can be used to initiate sound/object association. Some suggested props are: snake = /s/; monkey = /ooh/; bus or car = "/ah/; toy food item = /m/; baby doll = /ee/; baby doll = /sh/.

TAKE CARE TO PRODUCE ALL SOUNDS AT NORMAL CONVERSTIONAL LOUDNESS. DO NOT INCREASE YOUR INTENSITIY OR SOUND DURATION AS YOU INCREASE THE DISTANCE.

For further information and reading on the Ling Six-Sound Test please reference: The Six-Sound Test by Daniel Ling, published in W. Estabrooks & L.Birkenshaw-Fleming (Eds.), Songs for Listening! Songs for Life! (Washington, D.C., A.G.Bell Association for the Deaf and Hard of Hearing, 2003, pp.227-229.)

The Auditory-Options Project www.auditoryoptions.org