

# HELPING FAMILIES ACCEPT TECHNOLOGY



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# Why is it Important for Parents to Accept Technology?

- Full time use of technology is critical for success
- No matter what communication mode a family chooses, developing auditory skills can significantly improve success
- Auditory development has critical periods
- Consistent exposure to a clear auditory stimulus is critical for auditory brain development.
- Full time use of technology is critical to language development
- Language development is critical for literacy and for development of social skills.
- Accepting technology means accepting the child's hearing loss



# What Do Parents Need to Know to Accept Technology?

- Hearing helps develop auditory brain connections
- Effect of hearing on language development
- How many hours/day a child has to hear to learn
  - *If a child wears hearing aids 4 hours a day, it will take 6 years to hear what a child with typical hearing in one year.*
  - *Children need 20,000 hours of hearing to learn to read*
- How to know if the technology is providing sufficient benefit
- How to keep the technology on the child's head



# Hart And Risley (1995): Implications Of Practice

Words Spoken by Parent/Day	Words Spoken by Child/Day age 3 yrs	Child's IQ at age 3 yrs
8,624	525	79
17,514	749	107
30,142	1,116	117



# What Does Accepting Technology Mean?

- Is it really about the technology?
- Is it about accepting the hearing loss?
- Is it about accepting the child?
- What are the parents saying about why they are not pushing technology use?
- Accept technology, means accepting the hearing loss



# Some Reasons Families Reject Technology?

- They have had negative experiences with people with hearing loss
- They do not believe that the child has a hearing loss
  - *“How can those wiggly lines of an ABR mean anything?”*
- They do not understand the effect hearing loss has on learning
- They do not believe it is as severe as the audiologist says
- They are unable to accept the possibility of a child with a disability
- Other family members are not providing support
- The family does not see that the hearing aids are providing benefit
- Keeping hearing aids on is difficult

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# What Do the Professional Think About Hearing Loss and About Technology?

- Attitude of the professionals affects parents attitude
- What message are professionals giving to families?
- What is the professional's view of the hearing loss?
  - Are we optimistic and full of hope?
  - Do we believe this is a tragedy?
- If we are not full of hope we cannot help the parent's be full of hope
- If we are not optimistic about possibilities for children with hearing loss, we should not be doing this work!



# The Steps

- Helping families deal with grief
  - The birth of a child with HL is stressful
  - Something has happened that was not planned
  - This is not the perfect baby they anticipated
  - We need to give parents the opportunity to express grief
  - BUT it CANNOT interfere with moving on
  - Help families understand what is possible for children with hearing loss today!!!
- LISTEN





# Helping Families Build Hope

- Placing technology in the right framework
- What is your goal for your child?
  - Where do you want your child to be at age 3, 10, 15?
- Listening and spoken language is possible for children with hearing loss.
- Help parents understand the steps to attaining their goals for their child



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# Why Is Technology Important?

- How do you access the environment?
- How do you learn spoken language?
- How is the auditory brain developed?
- Technology is a BRAIN ACCESS TOOL
- Technology is a COMMUNICATION ACCESS TOOL
  - Speech, language, literacy, socialization
- There is no other way for the child to develop listening and spoken language
- Time is critical



# Some Specifics

- Technology is not frightening to today's parents.
  - Computers, phones etc
  - Technology is not the “real” issue
- Listen to what parents are saying.
  - Families need a chance to express their fears
  - They need to receive sympathy
- Families need to understand the importance of auditory access
- Families need to understand the importance of time



# Help Parents Recognize What the Child Hears with Technology

- The importance of behavioral testing
  - Parents can observe responses
  - Birth to 6 months – (BOA) observe changes in sucking
  - 6 to 30 months – (VRA) observe conditioned head turn
- Include parents in observing presence or absence of responses
- Discuss with parents what the child hears and what she does not hear
  - What is the effect on language learning and brain development of not hearing certain frequencies?



# Are They Hearing Well Enough?

- Teach parents how to identify how well the baby is hearing.
- Stimulate child at ear level with each of the Ling sounds
  - Put hearing aids on in morning
  - Turn them on,
  - Stimulate with one or two Ling sounds each day
    - *Ah, ah, ah*
  - Observe child to see response
  - Each day choose a different sound
  - Report back to the audiologist which sounds the child can hear
- If child hears /a/, /u/ /i/ but not /sh/ or /s/ what do we do?
- Audiologist can adjust hearing aid settings based on what the child is and is not hearing.



# Making the Technology Work

- Parents need to believe that the technology helps
- Size is NOT an issue
  - Good auditory access is the issue
- Audiologists
  - Don't under-fit
    - If the baby does not respond to the technology,
      - parents can't believe in it
      - It will not provide enough information to develop an auditory brain
    - Make sure it is loud enough
    - TEST to see responses!!!
- Data indicates that 40% of hearing aids are not providing sufficient benefit (Moeller)



# Ways to Receive Support

- Meet other parents with kids a little older
- Talk to some older successful kids
- Get involved in therapy quickly
- Talk about the desired outcome
  - Again, and again, and again
  - Talk about what is needed to get there
- Experiencing success helps
  - Seeing responses from the baby



# Helping Family Members Other Than Parents

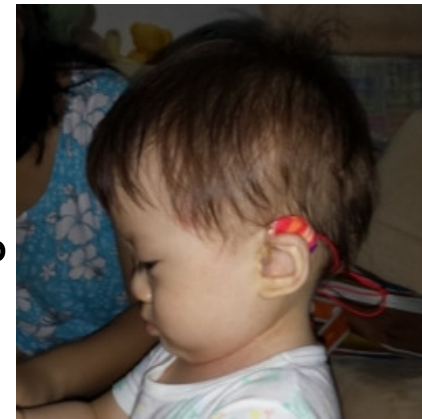
- It takes a Village
- Parents needs support from other family members
- Invite grandparents to evaluations and therapy
- Invite siblings
- Help everyone understand they they all have a role in the families success





# Keeping Technology On

- Keeping them on the ears
  - Ear Gear
  - “Pilot cap” bonnets
  - Saf-N-Sound
  - Wig/Toupee Tape
  - Oto/Critter clips
  - Huggies
- Situational variables to retention
  - When does the baby remove hearing aids?
  - Playing and reading to baby
  - The car
    - Maybe someone needs to be sitting in the back seat with baby?



# Technology is a Miracle

- We know it works
- We know it can provide brain access
- We know it can help children develop language
- We need to help parents to believe
- If they believe, they can do the work that needs to be done



*Thank you*

