



## Today's presentation will provide information about....

- Use of early sign language in children who are deaf or hard of hearing, including cochlear implant candidates
- ASL and English acquisition
- Deaf and hard of hearing children who are bimodal and/or bilingual

### Terminology: Bimodal and/or Bilingual

- An ASL/English Bilingual Approach

  - Bilingual means the development and use of two or more languages.
     Spoken English is a component of this approach. It is valued, encouraged, and incorporated and is specific to an individual child's characteristics and goals.

#### • What Does Bimodal Mean?

- \*\*Mat Does Bimodal Weah?\*\*

  \*\*Bimodal refers to the development and use of language in more than one modality.

  \*\*ASL is a signed language and English is a spoken language (spoken and signed are the "modes" to which "bimodal "refers).

  \*\*Bimodal development will be unique to each child. All children who can see have access to ASL; however, access to spoken English will be specific to each child's hearing levels and use of technology.

### Deaf and Hard of Hearing Children



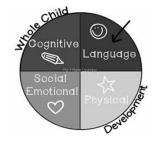
A diverse population of children who vary greatly by...
• Cause of hearing loss

- Age of onset
- Level of hearing loss
- Use of hearing technologies
  Parents hearing status
  Socio-economic variables

- Resilience of the family • Presence of other disabilities
- Adopted
   Access to language



#### What's the Big Deal about Language?





#### Major theorists have stated that....

- The brain has an innate capacity for language; it is language ready
  Language is not just communication, but communication fuels language
  Language and cognition have a mutually beneficial relationship
- Language is necessary for cognitive development, especially executive function skills
- Language development supports later academic learning

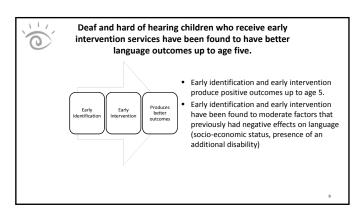




The brain is most receptive to language acquisition during "sensitive periods" early in a child's development.



- Language does not just happen in one swift simultaneous event.
- Aspects of language develop in different stages and different times in children.
- Vocabulary does not seem to have a critical period.
- The syntax (grammar) of a language, however, must be acquired before entering school.
- Having full syntactical command of one language supports the learning of another language.



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High levels of family involvement have been found to produce greater language development outcomes in deaf and hard of hearing children.



- High levels of family involvement produce higher language outcomes.
- Highly involved families tend to be dedicated to learning how to communicate with their child.
- High levels of involvement can buffer the negative effects of late enrollment in early intervention services.

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Acquiring a complete first language during early childhood is critical for later reading comprehension.



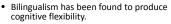
- Deaf and hard of hearing children must acquire a complete language (L1) before they enter school.
- ASL often functions as the L1 and supports the acquisition of spoken/written English.
- Delay in acquisition of a first language produces poor language performance.
- Delay in acquisition of a first language impacts on reading and academic achievement later.

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Learning two languages [ASL and English] is advantageous for deaf and hard of hearing children.





- Bilingual or bimodal approaches ensure that if one pathway is less effective, another pathway can be used.
- Delay of language acquisition has negative consequences on cognition, academic achievement, and social and emotional health.
- It creates life-long repercussions.

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### A mother's signing skills are predictive of later language development in deaf or hard of hearing children.



- It is challenging for parents to learn signs, but there are many more resources than in the past.
- Family training is necessary for birth 3
  - www.dcmp.org
  - Local libraries
- Deaf community socials in your community
- While learning signs, there are other communication strategies parents can use.
- Encourage parents not to give up.

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### A language foundation is an important factor in spoken language development.

- Sign language is sometimes withheld from deaf children because of the belief that it interferes with spoken language development.
- There is no evidence that sign language impedes spoken language.
- In fact, spoken language skills increase as children learn more gestures and signs.
- Proficiency in ASL has been found to positively influence spoken language development and English literacy.



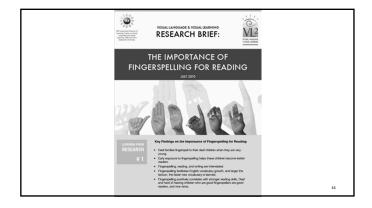
### Share with families

-	Families who	are more	involved	have	children
$\overline{}$	that perform	better.			

Early exposure to sign language provides certain cognitive advantages.

There is no evidence that signing interferes with spoken language development.

Signing early may serve to facilitate spoken language.





# Early exposure to fingerspelling helps children become better readers.

• Encourage parents to fingerspell with their young children.



- Very young deaf children perceive fingerspelled words as a sign until they learn the alphabet.
- Deaf children with early fingerspelling have similar vocabulary as hearing children at 24 months.
- Older children with early fingerspelling tend to read at higher rates than children of hearing parents.
- Fingerspelling ability significantly correlates with reading comprehension.



# Fingerspelling, reading, and writing are interrelated.



• The Visual Form Area of the brain helps us understand why.

Temporal Lobe  CEREBELLUM  BRAIN STEM  -	
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0	Share with Families	
	Start fingerspelling early with children who are deaf or hard of hearing.	
	Fingerspell before children understand the concept of the alphabet.	
	Adults need practice to be fluent in fingerspelling.	
	Early fingerspelling is associated with better literacy outcomes.	
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### Assessing Sign Language Development



- A standardized assessment of early visual communication.
- Normed on signing deaf children birth through five years of age.
- vl2@Gallaudet.edu for ordering information