

Speech Disorders: Pediatrician's Role from Birth to Adulthood



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Today's Presenter



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Today's presenter has no conflicts to disclose:

1. No financial or business interest, arrangement or affiliation that could be perceived as a real or apparent conflict of interest in the subject (content) of their presentation.
2. No unapproved or investigational use of any drugs, commercial products or devices

Objectives

- Know when and where to refer for variations from normal speech development
- Recognize risk factors, signs and prognosis associated with major groups of speech disorders
- Acquire skills to recognize and address presentations of speech disorders across the age continuum and what a pediatrician can do to intervene at various ages.

Normal Speech Development

- Birth to 5 months
 - Cooing
 - Responding to sounds
 - Smiling/Laughing/Crying
- 6 to 11 months
 - Babbling to jargon to saying first word
 - Understanding no
- 12 to 17 months
 - Simple words up to 4-6
- 18 to 23 months
 - Up to 50 words and some in combination

Normal Speech Development

- 2 to 3 years
 - Telling stories (3 word sentences)
 - Answering questions
- 3 to 4 years
 - Most understandable (Trouble with L, R, S, SH, CH, Y, V, Z, TH)
 - Playing with words and describe objects
- 4 to 5 years
 - Almost all understandable
 - Comprehend complex questions and spatial concepts
- 5 years
 - Complex sentences
 - 3 step directions

Referral Triggers

(Based on corrected age for prematurity in first 2 years)

- No cooing/sounds or not responsive to sounds (smiling) by 2 months
 - Consider repeating hearing screening
- Trouble with poor suck or managing solids
 - Consider OT evaluation for oromotor strength and tone
- No pointing to declare needs by 12-15 months
 - Consider early intervention or speech evaluation for social communication disorders

Referral Triggers

(Based on corrected age for prematurity in first 2 years)

- No more than 1-2 words (Counting all words in all languages including sign) by 18 months
 - Consider speech or early intervention evaluation for receptive or combined receptive/expressive language disorder
 - Consider repeating hearing screening
- **Additional triggers for evaluation:**
 - 2 years: Not following simple single step commands or not combining words into 2 word phrases
 - 3-4 years: Not stringing together sentences (telling stories)
 - Stuttering: Impairing comprehension by others or self-esteem

Overview of Speech and Language Disorders

Three major areas of language disorders:

Expressive (2-4% prevalence in children under 7)

- Trouble formulating language or ideas

Receptive (3-15% prevalence in children under 7)

- Comprehension

2-3% prevalence for combined expressive/receptive

Social (Pragmatic Language)

- Different than Autism in DSM-5. However, looks very similar from a pediatrician's perspective due to lack of social engagement.

Overview of Speech and Language Disorders

Speech Disorders

- Primary diagnosis: Articulation Disorder
 - Trouble producing sounds either due to muscle strength/tone or other physical attributes

Risk Factors for Speech and Language Disorders

- Family History
- Prematurity (less than previously thought)
- Low literacy household
- Low literacy exposure/High electronic exposure
- Boys > Girls

Comorbidities in Early Childhood

- **Developmental Delay**
 - Often language is only one of the areas of delay for those with more global developmental delays
- **Intellectual Disabilities**
 - Have some degree of speech/language delays ranging from non-verbal to minimal speech impairment
- **Autism Spectrum Disorders**
 - By definition this is a social communication disorder
 - However degree of language impairment is highly variable from non-verbal to no impairment aside from the pragmatic components

Comorbidities in Later Childhood or Adolescence

- Reading and Writing Disabilities
 - May not present till early elementary school
- Learning Disabilities
 - Additional risk for other learning disabilities besides reading or writing though less common
- ADHD
- Behavioral or Mental Health Disorders
 - Depression
 - Anxiety

Questions?



Early Childhood (0-5 years old)

Scenario 1:

18 month old presents for a well-child exam. She is only babbling and pointing to things she wants. She occasionally is saying mama or dada but not specifically for anyone person. She is engaging and smiling in your office.

Evaluation – where do you send her?

Early Childhood (0-5 years old)

Hearing screening

- Should be repeated even if passed at birth in any child with a speech delay

Speech Evaluation (Primary for those with isolated speech or language delays)

- Typically recommend referral to both speech and early intervention at the same time up to age 3 years old. (This can increase the speed of intervention starting.)

Early Intervention (0-3 years old) (Primary for those with more than one domain of developmental delay)

- State or county-based systems
- Assessments must be completed within 30 days of referral.

Special Education (3-5 years old) (Concurrent evaluation with speech if primarily articulation)

- School-based system even if not enrolled in school yet

Links to Early Intervention Programs

- **DC (Strong Start)** - <https://osse.dc.gov/node/151>
- **Montgomery** - <https://www.montgomeryschoolsmd.org/departments/special-education/programs-services/infants-and-toddlers.aspx>
- **Prince George's** - <https://www.pgcps.org/special-education-early-childhood/cards/Infants-and-Toddlers/>
- **Charles** - <http://www.charlescountyhealth.org/health-services/infants-toddlers/>
- **Arlington** - <https://health.arlingtonva.us/public-health/health-clinics-services/parent-infant-education-program-pie/>
- **Fairfax** - <https://www.fairfaxcounty.gov/office-for-children/infant-and-toddler-connection>
- **Alexandria** - https://www.211virginia.org/consumer/find/results/listing_results.php?listingid=259587&classLat=38.8395116&classLong=-77.1058803&lat=38.804836&long=-77.046921

Questions?



School-Aged Children

Scenario 2:

She is now 7 years old and is enrolled in elementary school. She received early intervention services for an expressive language disorder. She continues to have trouble with some letters but is not getting speech therapy services any more.

What more do you want to ask about as her pediatrician?

School-Aged Children

Reading development

- Ask early and often about reading for children with history of speech/language disorders
- **Consider adding a flag to the EMR**
- Remind parents to be alert from the moment of diagnosis

Behavioral issues

- May be early presenting sign of difficulty with reading or comprehension

School-Aged Children

Should she be re-evaluated? If so, for what and where?

Articulation issues beyond age 7 should be considered for re-evaluation

- Schools may not provide speech services unless articulation disorders are severe

Evaluation for reading disorders (Typically start at school)

- Children with speech disorders are at higher risk for reading disorders
- Threshold for evaluation should be lower and referrals should be made sooner

Self-esteem and behavioral health issues (Typically out of school with potential in school depending on district and family preference)

- At-risk for bullying or social isolation
- School-age children may withdraw or act out to compensate for challenges

Special Education Services

- Free Appropriate Public Education (FAPE) in the Least Restrictive Environment (LRE)
 - Even if enrolled in a private school, children may be eligible for services
- Ages 3-21 years old
- Includes special education, therapy services (such as speech), supplemental aids and services, and accommodations
- Evaluations should be completed every 3 years
 - Consider adding a flag to remind to ask families prior to re-eval and to schedule follow up post-eval
- Goals should be reported on every quarter and re-assessed on an annual basis
 - Important to request families bring in annual IEP with progress

Special Education Services

Pediatricians can create space for parents to express concerns with progress or process simply by asking

- **Don't be afraid not to be an expert**
- **Reinforce parents as experts on their children**
- **Explain technical language to family**

Questions?



Adolescence and Beyond

Scenario 3:

She is now in eighth grade and is 14 years old. She is not getting any speech services. She is reading at a 5th grade level and gets special education support in the regular education classroom. She is getting teased at school and has frequent absences for a variety of vague reasons.

Adolescence and Beyond

- **Social Emotional Issues**

- Depression/Anxiety/Psychosomatic
- Alcohol/Substance Use
- Social Isolation
- Self-Harming Behaviors
- Discipline Issues

- **Prevention**

- Regular asking about services by pediatrician
- Helping family find strengths of child and creating space for developing those skills as well
- Reminding parents to engage early if there are changes in performance or school engagement

- **Interventions**

- Transition planning is required starting at 16 years old in special education.
- Starting sooner can be helpful in motivation and social emotional issues.
- Special education services include access to school based counseling support

Adulthood: Post-High School Services

Special Education Services

- Young adults under 21 years of age enrolled in high school or public universities are eligible for ongoing services
- Many private universities will provide students with accommodations
 - Often requires pediatricians attestation to needs and disability

Americans with Disabilities Act

- Ensures individuals with disabilities can access work and educational services
- Variation as to documentation requirements to access accommodations

Guardianship/Decision-making

- Recommend pursuing shared decision-making for those young adults who need it as opposed to guardianship
 - Guardianship requires demonstrating young adult is significantly impaired with little likelihood of gaining new skills
- Important part of ongoing privacy conversation with patient and parents

Questions?

Contact the PHN Quality team if you would like guidance on how to implement the content from today's talk into your practice workflow or EMR templates.

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