



# When Is Developmental Behavioral Pediatrics Medically Necessary? *Speech Therapy and Sensory Integration Therapy*

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# Speaker Introductions

## **Moderator**

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## **Presenter**

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- Board-Certified in Developmental-Behavioral Pediatrics

# Overview

- The scope of pediatric developmental behavioral health and therapies
- Speech and language disorders
  - Common speech and language disorders
  - Determining medical necessity for speech therapy: requirements for comprehensive evaluation and documentation
  - Common coverage exclusions
- Sensory processing disorder and central auditory processing disorder
  - Sensory integration therapy and auditory integration therapy
  - Coverage exclusions
- Role of independent medical review in determining medical necessity for treatment of pediatric developmental behavioral health issues

# Pediatric Developmental Behavioral Health

- About 20% of children in the United States have a developmental or behavioral disability (e.g., autism, ADHD)
  - The majority of children with these disabilities remain unidentified by the time they start school
  - Diagnosis is complicated due to overlapping symptoms between disorders
- Therapy should promote improvement or prevent deterioration in function
  - Meaningful, measurable goals that are realistically attainable should be set early on

CDC. Child development. Available at: <http://cdc.gov/ncbddd/child/devtool.htm>.

# Are All Therapies Effective?

- Traditional therapies (e.g., speech therapy) are effective when the goals are appropriate for the child's:
  - Current needs
  - Abilities and disabilities
  - Developmental stage
- Nonstandard therapies (e.g., sensory integration therapy, auditory integration therapy) remain controversial
  - Some children may receive these therapies because other treatment approaches have failed
  - The use of these therapies is not founded on the currently available medical literature

# Speech and Language Disorders

# Speech and Language Disorders

- Affect articulation of speech, sounds, fluency, voice, swallowing (regardless of the presence of a communication disability)
- Impair comprehension, or spoken, written, or other symbol systems used for communication
- Result from a variety of conditions
  - Local (e.g., injury or localized disease of the vocal cords, tumors or growths that cause swallowing and speech difficulty, congenital cleft lip or cleft palate)
  - Systemic
  - Neurological (e.g., stroke, multiple sclerosis)

# Common Speech and Language Disorders

Disorder	Description
Aphasia	Absence or impairment of the ability to communicate through speech, writing, or signs because of brain dysfunction
Aphonia	Inability to produce sounds from the larynx due to paralysis, excessive muscle tension, or disease of laryngeal nerves
Apraxia/dyspraxia	Inability or difficulty to form words or speak, despite the ability to use oral and facial muscles to make sounds
Dysarthria	Impairment in the uttering of words due to diseases that affect the oral, lingual, or pharyngeal muscles; speech may be difficult to understand, but the ability to communicate exists
Dysphasia	Impairment of speech resulting from a brain lesion, stroke, or neurodevelopmental disorder
Stuttering	Disruption in the fluency of speech; affected individuals repeat letters or syllables, pause or hesitate abnormally, or fragment words when attempting to speak

# Speech and Language Therapy

- Therapy services designed to improve, develop, correct, rehabilitate, or prevent the worsening of:
  - Speech/language communication and swallowing disorders that have been lost, impaired, or reduced as a result of acute or chronic medical conditions, congenital anomalies, or injuries
- Includes diagnostic evaluation and therapeutic intervention
- Should be individualized to the specific communication needs of each patient

# Determining Medical Necessity for Speech Therapy

# Comprehensive Evaluation and Documentation

- Critical for:
  - Reimbursement of pediatric developmental behavioral services
  - Individualization of therapies in order to meet the specific needs of each patient
- Comprehensive evaluation of the child and his/her speech and language potential is generally required before initiation of speech therapy
- The evaluation may demonstrate that the potential exists for speech therapy to result in an age-appropriate level of speech

# Medical History and Physical Examination

- A licensed physician or clinician should determine factors contributing to a speech and language communication disorder
- Essential components
  - Description of the condition and date of onset
  - Child's functional status before the onset of the condition
  - Any past treatments
  - Child's current medical status or other disabilities
  - Standardized assessment tests to identify and quantify impairment

# Speech & Language Assessment Tests for Children

- **Receptive-Expressive Emergent Language Scale (REEL)**
  - Designed to identify infants and toddlers who have language impairments or other disabilities that affect language development
  - Uses behavioral observations of parents or guardians to identify major language problems in children up to 3 years of age
- **Test of Language Development (TOLD)**
  - Designed to assess spoken language in young children
  - Subtests measure various aspects of oral language (e.g., semantics and grammar, listening, organizing, speaking, overall language ability)
- **Peabody Picture Vocabulary Test (PPVT)**
  - Designed to measure a child's receptive (hearing) vocabulary for the spoken word
  - The child is asked to identify a picture from a set of four, which best represents the spoken word given by the examiner

# Identify and Document Potential Risk Factors for Speech and Language Impairment

Risk Factors	Examples
Neurological disorders or dysfunctions	Cerebral palsy, hearing loss
Surgical procedures	Partial, comprehensive, or radical laryngectomy, glossectomy, or repaired cleft palate
Cognitive impairments	Impairment of communication functions
Medical conditions resulting in communication disorders that may need restorative therapy	Multiple sclerosis, myasthenia gravis, traumatic brain injury, mental retardation

# Written Treatment Plan

- Documentation of the proposed treatment plan should include:
  - Findings of the speech evaluation
  - Short- and long-term measurable goals
  - Specific treatment techniques and/or exercises to be used during treatment
  - Determination of how the goals will be measured and reported
  - Expected duration of therapy for goals to be met
  - Strategy for a maintenance program
- Patient-specific measures should demonstrate that the child is consistently improving and that a plateau has not been reached

# Speech Therapy Coverage Exclusions

- Many plans have exclusion language that impacts coverage of speech therapy
- Examples
  - Rehabilitative services for learning disabilities, developmental delays, and mental retardation
  - Treatments that are not restorative in nature
  - Myofunctional therapy for dysfluency (e.g., stuttering, spastic dysphonia, other involuntarily acted conditions) or functional articulation disorders (e.g., tongue thrust, lisp, verbal apraxia)

# Sensory Processing Disorder and Central Auditory Processing Disorder

# Sensory Integration Disorder

- **Sensory integration**
  - Refers to the process by which the brain organizes and interprets external stimuli (e.g., touch, movement, body awareness, sight, sound, gravity)
  - Certain behavioral and emotional problems are believed to result from the malfunctioning of this process
- **Sensory integration disorder**
  - Term used to characterize children who exhibit exaggerated sensitivity to sensory stimuli
  - Children with a range of neurodevelopmental and behavioral disorders (e.g., ADD/ADHD, autism, anxiety disorders) also have sensory issues

# Central Auditory Processing Disorder (CAPD)

- An umbrella term for a variety of disorders that affect the way the brain processes auditory information
  - Children with CAPD often do not recognize subtle differences between sounds in words
- The cause of the disorder is often unknown
- May result from ear infection, head injuries, or developmental delays
- In children, CAPD may be associated with conditions such as dyslexia, ADD, autism, autism spectrum disorder, specific language impairment, pervasive developmental disorder, or developmental delay

# Sensory Integration Therapy and Auditory Integration Therapy

# Sensory Integration Therapy (SIT)

- Proposed method of improving the way the brain processes and organizes external stimuli
- Usually performed by an occupational therapist
- Sensory stimulation is provided in combination with muscle activities using therapeutic techniques and objects
- Current studies of SIT
  - Poorly controlled trials with methodological flaws
  - Fail to demonstrate that SIT provides long-term improvement in neurological and behavioral development
- SIT remains unproven for the treatment of any condition

# Auditory Integration Therapy (AIT)

- Proposed treatment to improve abnormal sound sensitivity in individuals with CAPD, sensory integration issues, autism, ADHD
- Usually provided by a speech-pathologist or audiologist
- Involves listening to specially filtered and modulated music
- Currently published peer-reviewed scientific literature does not support the efficacy of AIT for the treatment of patients with learning disabilities, autism, and other behavioral disorders

# SIT and AIT Require Further Studies

- The American Academy of Pediatrics (AAP):
  - Acknowledges that there are no good data to support the efficacy of SIT at this time
  - Considers AIT an experimental procedure
- Both SIT and AIT require further and better designed clinical trials in order to establish their clinical usefulness

AAP. *Pediatrics*. 1998;102:431-433. [Reaffirmed Feb 2010]  
Michaud et al. *Pediatrics*. 2004;113:1836-1838. [Reaffirmed Sept 2007]

# SIT and AIT Coverage Exclusions

- Both SIT and AIT are specifically excluded under many health plans because they are considered experimental, investigational, or unproven
- Many plans specifically exclude behavioral training and services, training, educational therapy, or other nonmedical ancillary services for learning disabilities, developmental delays, autism, or mental retardation

# The Role of Independent Medical Review in Determining Medical Necessity for Treatment

- An independent review organization (IRO) provides specialty match
  - Especially important for pediatric developmental health since appropriate and timely interventions are critical for the intellectual and social development of children
- Allows access to a range of board-certified physician specialists who:
  - Provide up-to-date, evidence-based decisions
  - Determine whether therapies meet the latest standard of care
  - Ensure that the requested therapy falls under the medical necessity requirements before a course of treatment is approved
- Avoids conflicts of interest (e.g., those relating to economics, lack of specialists to review cases)

# Conclusions

- Interventions such as speech therapy have been shown to improve long-term clinical outcomes in children
- Therapies such as SIT and AIT require further studies
- Healthcare policy-makers and plans face the challenge of:
  - Keeping up with emerging data
  - Integrating findings into routine practice, guidelines, and coverage
- Early identification of developmental disorders so that children can receive appropriate timely therapy is critical to the well-being of children and their families

## Conclusions (cont'd)

- An IRO can provide reach access to specialists, which healthcare plans may lack internally
  - Allows for timely determination of whether the requested tests fall under medical necessity guidelines
- Independent medical reviews provide unbiased evaluation of medical need for pediatric developmental behavioral health services
  - Facilitates the optimization of care for children who need therapy

# Questions and Answers

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# Questions & Answers

- **Is there a difference between Behavioral Pediatrics and Developmental Pediatrics, or are they one and the same?**
  - Developmental pediatrics has existed as a subspecialty of pediatrics since around the 1950s. However, the American Board of Pediatrics has offered board certification only in the past 10 years. Under the ABP, the field is divided into developmental-behavioral pediatrics and neurodevelopmental pediatrics. DB peds is somewhat broader and includes developmental disabilities and neurobehavioral disorders. ND peds focuses more on neurological and musculoskeletal disorders. There is considerable overlap in these two branches, and some physicians are board certified in both.

## Questions & Answers

- **I have a niece who has stuttered since she began speaking. She is now 12, has had no therapy and it is getting worse? What do you suggest?**
  - The literature does not support the use of speech therapy to treat dysfluency (stuttering). In most individuals, the symptoms resolve without intervention. If symptoms persist, worsen, or are severe there may be an associated anxiety disorder for which further evaluation and treatment is warranted. If diagnosed with an anxiety disorder, cognitive-behavioral therapy (CBT) has evidence to support its use.

# Questions & Answers

- **Can sensory integration disorders affect adults and is it treatable?**
  - Although sensory integration disorder is not recognized as a standalone diagnosis, its symptoms are real. As I discussed earlier, these are actually symptoms of anxiety that occur commonly in the general population. If the symptoms do not interfere with one's daily function, then there is no need for concern. However, if the symptoms clearly affect one's ability to function normally, further evaluation for possible causes (e.g., ADHD, anxiety disorder, etc.) is warranted. As discussed earlier, intervention for sensory integration disorder is unproven and experimental.

# Questions & Answers

- **Do insurance companies typically cover Dr. Phelan's assessments and evaluations?**
  - Reimbursement for developmental pediatrics assessments is challenging. Developmental pediatricians perform lengthy clinical evaluations, often lasting 1 or 2 hours. We administer a wide range of psychometric tools for which we bill using procedure codes. However, many insurance companies do not reimburse for these procedures.

# Questions & Answers

- **Can you explain the difference when speech therapy is considered medically necessity vs. educational?**
  - Public schools view language delay and disorders from a different perspective than do healthcare providers. The focus for schools is whether the symptoms negatively impact the child's ability to learn. Thus, a child may have a medical diagnosis of language delay but do well in school and have no academic repercussions. That child will not qualify for speech therapy at school. For children who qualify for ST at school, they receive it in a group setting and generally at a relatively low frequency or duration. In contrast, children receiving ST by private companies get it individually for longer sessions and more often. If a child has a qualifying diagnosis, ST is medically necessary in all cases, regardless of whether he/she receives it at school.

# Questions & Answers

- **Can you talk about some of the signs and symptoms of vocal cord disorders? Are they similar to asthma? Are medications used to manage vocal cord disorders?**
  - **Psychogenic stridor** — Psychogenic stridor is a severe form of psychogenic dysphonia. It also is called paradoxical vocal cord dysfunction, Munchausen stridor, factitious asthma, pseudoasthma, and "vocal cord dysfunction presenting as asthma" [35-37]. (See "[Paradoxical vocal cord motion](#)".)
  - Children with this disorder may have a history of prior psychiatric illness, including depression, personality disorder, or post-traumatic stress disorder, or they may have a history of childhood sexual abuse [38,39]. In one study comparing adolescents with vocal cord dysfunction to those with asthma, patients with paradoxical vocal fold motion had higher levels of anxiety and more frequent diagnoses of generalized anxiety disorder and separation anxiety [40]. Some patients have concomitant asthma or have been misdiagnosed with asthma; these patients may develop iatrogenic Cushing's syndrome after high dose glucocorticoid treatment for putative refractory asthma [41,42]. (See "[Paradoxical vocal cord motion](#)".)

# Questions & Answers

- **Can you talk about some of the signs and symptoms of vocal cord disorders? Are they similar to asthma? Are medications used to manage vocal cord disorders? (continued)**
  - **Clinical features** — Children and adolescents who have psychogenic stridor have a normal laugh and cry and resolution of the stridor during sleep, or in some cases, when the patient is unaware of being observed [[35,43](#)].
  - Patients may present with significant respiratory distress and dramatic inspiratory stridor [[44](#)]. Adventitious sounds are loudest above the throat and are less audible through the chest wall, where the sound is attenuated by transmission through the airways and the pulmonary parenchyma. Acute respiratory distress may be of such severity that patients are treated with intubation or tracheotomy to restore airway patency [[42,45](#)].
  - Because psychogenic stridor can coexist with true asthma, a thorough evaluation for asthma is essential [[46,47](#)]. Clinical features that support a diagnosis of psychogenic stridor include [[37,48,49](#)]:
    - More subjective difficulty on inspiration than expiration
    - Minimal response to aggressive asthma treatment

# Questions & Answers

- **Can you talk about some of the signs and symptoms of vocal cord disorders? Are they similar to asthma? Are medications used to manage vocal cord disorders? (continued)**
  - A flattened inspiratory flow-volume loop ([figure 1](#))
  - Normal pulse oximetry, pulmonary function tests, and arterial blood gas measurements
  - **Diagnosis** — The diagnosis of psychogenic stridor requires a high index of suspicion. Airway radiographs and fluoroscopy may demonstrate paradoxical vocal cord motion [[42.50](#)]. Visualization of the cords using a flexible fiberoptic laryngoscope confirms the diagnosis by revealing normal laryngeal architecture and paradoxical motion of the vocal folds, ie, adduction during inspiration and abduction during phonation.
  - **Treatment** — Treatment of psychogenic stridor is directed at the underlying psychologic etiology and involves psychotherapy coupled with voice therapy.

# Questions & Answers

- **Are there any reliable methods or tools for eliciting and assessing parents' concerns about their child's development and behavior?**
  - The American Academy of Pediatrics recommends that infants and children see their PCP for well checks at 2 weeks, 2 months, 4 months, 6 months, +/- 9 months, 12 months, +/- 15 months, 18 months, 24 months, and 36 months of age. Well checks serve as **surveillance** for growth and development. At specific visits, pediatricians offer routine **screening** for developmental delay using tools such as the Parents Evaluation of Developmental Status (PEDS) or Ages & Stages Questionnaires (ASQ) or for autism spectrum disorder using the Modified Checklist for Autism in Toddlers (M-CHAT). Of course, parental concern at any point should raise suspicion.

# Questions & Answers

- **Have speech and language therapy been shown to be effective in children with fetal alcohol syndrome?**
  - ST is proven effective, especially before age 36 months in children who have developmental language delay. Many children who have FASD also have language delay. However, ST does not specifically target the symptoms of FASD.

# Questions & Answers

- **Are there any adverse effects associated with auditory integration therapy?**
  - Facilitated communication (FC), auditory integration training (AIT), sensory integration (SI) therapy, and Fast ForWord are examples of controversial practices that have **not** been validated in large, controlled trials. Some advocate AIT for children with autism and a variety of communication, behavioral, and emotional disorders, although this practice lacks a reasonable theoretic basis. Although AIT is unlikely to cause direct harm, it can indirectly affect the child by diverting time, attention, and money away from interventions that have scientific support.

# Questions & Answers

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# Thank You



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