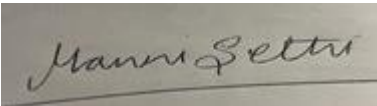


**Prior Authorization Review Panel
MCO Policy Submission**

A separate copy of this form must accompany each policy submitted for review.
Policies submitted without this form will not be considered for review.

Plan: Keystone First	Submission Date: 1/2/2025
Policy Number: ccp.1302	Effective Date: 6/2017 Revision Date: December 1, 2024
Policy Name: Speech therapy	
Type of Submission – Check all that apply: ☐ New Policy ☒ Revised Policy* ☐ Annual Review – No Revisions ☐ Statewide PDL	
*All revisions to the policy <u>must</u> be highlighted using track changes throughout the document. Please provide any clarifying information for the policy below: See tracked changes below.	
Name of Authorized Individual (Please type or print): Manni Sethi, MD, MBA, CHCQM	Signature of Authorized Individual: 

Speech therapy

Clinical Policy ID: CCP.1302

Recent review date: 12/2024

Next review date: 4/2026

Policy contains: Oral feeding therapy; oral aversion; speech disorder; speech fluency; speech therapy; swallowing disorder.

Keystone First- CHIP has developed clinical policies to assist with making coverage determinations. Keystone First- CHIP's clinical policies are based on guidelines from established industry sources, such as the Centers for Medicare & Medicaid Services (CMS), state regulatory agencies, the American Medical Association (AMA), medical specialty professional societies, and peer-reviewed professional literature. These clinical policies along with other sources, such as plan benefits and state and federal laws and regulatory requirements, including any state- or plan-specific definition of "medically necessary," and the specific facts of the particular situation are considered by Keystone First- CHIP, on a case by case basis, when making coverage determinations. In the event of conflict between this clinical policy and plan benefits and/or state or federal laws and/or regulatory requirements, the plan benefits and/or state and federal laws and/or regulatory requirements shall control. Keystone First- CHIP's clinical policies are for informational purposes only and not intended as medical advice or to direct treatment. Physicians and other health care providers are solely responsible for the treatment decisions for their patients. Keystone First- CHIP's clinical policies are reflective of evidence-based medicine at the time of review. As medical science evolves, Keystone First- CHIP will update its clinical policies as necessary. Keystone First- CHIP's clinical policies are not guarantees of payment.

Coverage policy

Speech therapy is clinically proven and, therefore, may be medically necessary when all of the following criteria are met (American Speech-Language-Hearing Association, 2015):

- Either:
 - Objective standardized testing does not demonstrate age-appropriate, speech-language communication (Brady, 2016; Gubiani, 2015; Roulstone, 2015; Tosh, 2017).
 - Clinical assessment or objective standardized testing demonstrates a pediatric feeding disorder (impaired oral intake that is not safe or age-appropriate) and an associated medical, nutritional, feeding skill, or psychosocial dysfunction (World Health Organization International Classification of Functioning, Disability, and Health, 2001).
- Services are administered as part of a care plan with clearly defined type, amount, duration, and frequency of therapy services, and clearly defined therapeutic goals. Amount, frequency, and duration must be reasonable under accepted standards of practice.
- Services are administered by a trained, licensed healthcare professional experienced in the diagnosis and treatment of speech and feeding disorders.
- The member's condition is expected to improve from the services provided.

Limitations

Speech therapy services for which there is no evidence of improved outcomes or for which there is no defined benefit in state or federal policy are not medically necessary, including, but not limited to:

- Speech therapy administered for achievement of academic goals (e.g., grammar, vocabulary, and reading).
- Speech therapy administered in a language other than the member's language at home.
- Voice therapy for members undergoing gender reassignment in the absence of a functional limitation.
- Speech therapy for a member who is able to: 1) feed or swallow to maintain adequate nutrition, hydration, and pulmonary status, or 2) manage oral and pharyngeal saliva accumulations (American Speech-Language-Hearing Association, 2015).

A reevaluation of the member's performance and goals is medically necessary when a significant improvement, decline, or change in the member's condition occurs, or if it is requested by the Plan to determine the medical necessity of an ongoing intervention. A trained, licensed health care professional experienced in the diagnosis and treatment of speech disorders should perform the reevaluation.

Alternative covered services

Routine in-network evaluation and management by primary care physicians and specialists, including specialty therapists, working in the area of speech deficit, speech fluency, or swallowing disorders.

Background

A speech disorder is an impairment of the articulation of speech sounds, fluency, or voice (American Speech-Language-Hearing Association, 2024b). The prevalence of speech sound disorders in young children is 8% to 9%, mostly attributed to articulation disorders or phonologic disorders (National Institute on Deafness and Other Communication Disorders, 2016). By school age, an estimated 5% of children have noticeable speech disorders (e.g., stuttering, speech sound disorders, and dysarthria) with no clear etiology.

Aberrations in development and execution of speech are usually identified as a congenital or developmental deficit or as the result of an insult to the auditory organs or the brain during pediatric or adult life. Speech disorders can be organic resulting from an underlying motor/neurologic, structural, or sensory/perceptual cause, whereas functional speech disorders are idiopathic. Evaluation of speech consists of clinical examination and age-appropriate standardized tests with "standard scores" designed specifically to identify speech deficits and difficulties in speech fluency (American Speech-Language-Hearing Association, 2024b). Serial measurements can be administered at intervals over the course of therapy.

Speech therapy is a collection of interventions that focuses on improving speech/language production, voice production, swallowing function, cognitive-linguistic skills, or general communication abilities that have been impaired as a result of a disease, injury, developmental delay, or surgical procedure (American Speech-Language-Hearing Association, 2015). Management of speech deficit and aberrations of speech fluency generally is conducted in the language of the home at intervals appropriate to the global condition of the patient. Modern treatment focuses on individualized behavioral approaches combined with education and training. In children, the emphasis of treatment is on manipulating environmental factors (indirect approaches) and working exclusively on the speech of the child with direct therapeutic approaches (Blomgren, 2013).

Pediatric feeding disorders

Feeding involves any aspect of eating or drinking, including food and liquid gathering and preparation, sucking or chewing, and swallowing (American Speech-Language-Hearing Association, 2024a). Pediatric feeding disorders encompass a range of eating activities that may or may not include problems with swallowing (dysphagia). Feeding problems may involve food refusal, disruptive meal-time behavior, rigid food preferences, suboptimal growth, or failure to master self-feeding skills commensurate with the child's developmental abilities.

Pediatric feeding disorders are complex to diagnose and treat and often occur in children with other medical, developmental, or behavioral problems. Impairment in oral-motor control and function and swallowing and behavioral and/or sensory issues may interfere with normal feeding, resulting in choking, pulmonary complications, inadequate nutrition and hydration, weight loss, and failure to thrive (Borowitz, 2018; Riaz, 2021).

Pediatric feeding disorders comprise four related and complementary domains — medical, psychosocial, feeding skill-based systems, and associated nutritional complications — but have lacked a universally accepted definition (Goday, 2019). The World Health Organization International Classification of Functioning, Disability, and Health (2001) proposed defining a pediatric feeding disorder as “impaired oral intake that is not age-appropriate, and is associated with medical, nutritional, feeding skill, and/or psychosocial dysfunction.” This framework complements the 10th revision of the International Classification of Diseases and presents a holistic linkage to the physiologic and functional impact that is critical to treatment planning and improving quality of life.

A systematic review/meta-analysis of 67 studies determined that 25% of preterm infants experienced oromotor feeding difficulties in late infancy and/or childhood, with 20% classified as challenging eating behaviors. These figures exceed those for term infants. Authors note that mothers of preterm infants had increased anxiety while feeding and utilized coercive food parenting practices, while their children received less human milk, started solid foods earlier, and had poorer diet quality (Walton, 2022).

Pediatric feeding problems are typically treated in outpatient settings by individual practitioners or interdisciplinary care teams to address medically complex cases. The role of speech-language pathology is to identify the etiology and develop specific therapies and skills to make the process of eating easier, safer, and more nutritious, and enjoyable (American Speech-Language-Hearing Association, 2024a). Clinical and age-appropriate instrumented assessments are needed to document the functional impairment and associated disability. Interventions may include: modifying the nature, consistency, and volume of food and liquid intake; altering swallowing behavior; improving oral, pharyngeal, and laryngeal coordination, control, speed, and strength; and patient and caregiver counseling.

Findings

Guidelines

Inconsistent application of formal tools such as standardized tests to evaluate outcomes in speech therapy hampers consistent interpretation of the available data. There is awareness in the rehabilitative community that testing interventions are varied, often poorly described, and of limited quality. A single standardized test may not measure all valid and accepted means of communication (e.g., gestures, facial expressions, tone of voice) encountered in a “functional” environment (Colquhoun, 2017; Costantino, 2014).

Moreover, the evidence on different approaches to speech and language therapy have lacked consistent focus sufficient to draw conclusions based on sound medical evidentiary principles (American Speech-Language-Hearing Association, 2015; Gubiani, 2015; Roulstone, 2015). Professional organizations within the speech and language therapy community, such as the International Collegium of Rehabilitative Audiology (Akeroyd, 2015), have begun promulgating guidelines to promote a valid comparative basis for outcomes effectiveness.

The American Academy of Otolaryngology-Head and Neck Surgery Foundation published a guideline on treating patients who present with dysphonia. The Academy issued strong recommendations for voice therapy for patients with dysphonia from a cause amenable to voice therapy (Stachler, 2018).

For children with complex feeding problems, the American Speech-Language-Hearing Association (2024a) supports an interdisciplinary team approach for implementing individualized treatment plans. The goals of feeding and swallowing intervention include supporting safe and adequate nutrition and hydration, achieving safe and age-appropriate eating skills, and preventing future feeding issues.

Evidence review

There is sufficient evidence for the effectiveness of speech therapy in terms of improved “functional communication” (e.g., reading, writing, and expressive language) compared with no therapy (standardized mean difference = 0.28, 95% confidence interval 0.06 to 0.49, $P = .01$), based on the results of a Cochrane review of 57 randomized controlled trials ($n = 3,002$ participants) (Brady, 2016).

There is limited evidence (Brady, 2016) that speech therapy at high intensity, high dose (four to 15 hours of speech therapy per week), or over a longer period (up to eight years) may be beneficial for persons with aphasia. However, the benefits of high-intensity/high-dose speech therapy are diminished by a significantly higher dropout rate in these intervention groups. There is modest evidence that home speech therapy is an efficacious service delivery model, but it must be administered consistently and with direct parental involvement (Tosh, 2017).

Several systematic reviews have examined the effectiveness of feeding therapy with a focus on speech-language pathology interventions for oral aversion and other feeding difficulties. The results confirm the complex and multifactorial nature of pediatric feeding disorders. The contribution of speech-language pathology interventions is best recognized as an integral component of a treatment protocol with clearly defined objectives that link the feeding problem with oral-motor interventions and a measurable reduction in impairment.

Interventions for improving feeding outcomes in preterm infants include oral, swallow/gustatory, olfactory, tactile/kinesthetic, and auditory stimulation (Sheikh-Mohamed, 2024). These interventions may be provided alone or in combination. The strongest evidence from systematic reviews supports the efficacy of oral stimulation protocols. In particular, protocols incorporating non-nutritive sucking can significantly reduce the time to independent oral feeds, improve feeding efficacy, and reduce hospital length of stay. However, its effects on weight gain and growth in preterm infants require further study (Muñoz-Gómez, 2024; Sheikh-Mohamed, 2024; Zhao, 2024).

In a systematic review (Sharp, 2017) of 11 studies, multi-component interventions that applied operant conditioning, systematic desensitization, and changes to environment and familial practices were effective for children with complex medical or developmental histories who displayed persistent feeding concerns requiring formula supplementation. Three of the studies included oral-motor therapy, which consisted of decreasing tactile hypersensitivity or increasing the range, strength, and control of the lips, cheeks, jaw, and tongue. Reported outcomes of multi-component treatment were rates in successful weaning from tube feeding at discharge (71%, 95% confidence interval 54% to 83%), which persisted at varying lengths of follow up, and subjective improvements in oral intake and mealtime behaviors and reductions in parenting stress. The authors recommended multidisciplinary intervention, including speech-language pathology or occupational therapy, to ensure the necessary oversight and clinical guidance needed to address the behavioral, organic, dietary, and oral-motor concerns pervasive in severe feeding disorders.

A systematic review (Gosa, 2017) of 61 mixed-quality studies found sufficient evidence from four high-quality studies to establish the efficacy and benefit of joint nutrition and behavior intervention programs to improve functional feeding and swallowing outcomes in children with swallowing and feeding disorders. For other interventions, such as oral-motor or sensory therapies, there continues to be weak or conflicting evidence supporting their impact on functional feeding outcomes in pediatric populations.

A systematic review (Rhooms, 2019) of 35 low-quality studies examined the effects of unimodal (26 studies) and multimodal (nine studies) sensorimotor interventions on oral feeding outcomes (transition to full oral feeding, volume intake, weight gain, and length of hospital stay) in preterm infants. Unimodal interventions primarily targeted oral sensorimotor input and, to a lesser extent, tactile, auditory, and olfactory input. Multimodal interventions combined tactile and kinesthetic stimulation. The heterogeneity in the studies limited the ability to determine the effects of sensorimotor interventions on feeding outcomes provided by either mode. Shortland (2021) reached similar conclusions.

In 2018, we updated the references and made no policy changes.

In 2019, we updated the references and added a bullet clarifying the requirements of a care plan as outlined by the American Speech-Language-Hearing Association (2015). The policy ID was changed from CP# 15.02.11 to CCP.1302.

In 2020, we updated the references and added to the limitations section that voice therapy is generally considered cosmetic in the absence of a functional limitation.

In 2021, we updated the references and addressed a field request to determine the medical necessity of oral feeding therapy for pediatric feeding disorders, and for oral aversion, in particular. We modified the coverage based on American Speech-Language-Hearing Association (2015) guidelines.

In 2023, we added no new references to the policy.

In 2024, we reorganized the findings section and updated the references. No policy changes are warranted.

References

On October 10, 2024, we searched PubMed and the databases of the Cochrane Library, the U.K. National Health Services Centre for Reviews and Dissemination, the Agency for Healthcare Research and Quality, and the Centers for Medicare & Medicaid Services. Search terms were “speech deficit,” “speech fluency,” “Feeding and Eating Disorders of Childhood/therapy” (MAJR), “Feeding behavior/therapy” (MeSH), “deglutition disorders” (MeSH), “dysphagia,” and “speech therapy” (MeSH). We included the best available evidence according to established evidence hierarchies (typically systematic reviews, meta-analyses, and full economic analyses, where available) and professional guidelines based on such evidence and clinical expertise.

Akeroyd MA, Arlinger S, Bentler RA, et al.; International Collegium of Rehabilitative Audiology Working Group on Multilingual Speech Tests. International Collegium of Rehabilitative Audiology (ICRA) recommendations for the construction of multilingual speech tests. ICRA Working Group on Multilingual Speech Tests. *Int J Audiol*. 2015;54 Suppl 2:17-22. Doi: 10.3109/14992027.2015.1030513.

American Speech-Language-Hearing Association. Pediatric feeding and swallowing (practice portal). <https://www.asha.org/practice-portal/clinical-topics/pediatric-feeding-and-swallowing/#collapse>. Published 2024. (a)

American Speech-Language-Hearing Association. Speech-language pathology medical review guidelines. <https://www.asha.org/siteassets/uploadedFiles/SLP-Medical-Review-Guidelines.pdf>. Published 2015.

American Speech-Language-Hearing Association. Speech sound disorders: Articulation and phonology. https://www.asha.org/practice-portal/clinical-topics/articulation-and-phonology/#collapse_9. Published 2024. (b)

Blomgren M. Behavioral treatments for children and adults who stutter: a review. *Psychol Res Behav Manag*. 2013;6:9-19. Doi: 10.2147/prbm.s31450.

Borowitz KC, Borowitz SM. Feeding problems in infants and children: Assessment and etiology. *Pediatr Clin North Am*. 2018;65(1):59-72. Doi: 10.1016/j.pcl.2017.08.021.

Brady MC, Kelly H, Godwin J, et al. Speech and language therapy for aphasia following stroke. *Cochrane Database Syst Rev*. 2016;6:CD000425. Doi: 10.1002/14651858.CD000425.pub4.

Colquhoun HL, Lamontagne ME, Duncan EA, et al. A systematic review of interventions to increase the use of standardized outcome measures by rehabilitation professionals. *Clin Rehabil*. 2017;31(3):299-309. Doi: 10.1177/0269215516644309.

Costantino MA, Bonati M. A scoping review of interventions to supplement spoken communication for children with limited speech or language skills. *PLoS One*. 2014;9(3):e90744. Doi: 10.1371/journal.pone.0090744.

Goday PS, Huh SY, Silverman A, et al. Pediatric feeding disorder: Consensus definition and conceptual framework. *J Pediatr Gastroenterol Nutr*. 2019;68(1):124-129. Doi: 10.1097/MPG.0000000000002188.

Gosa MM, Carden HT, Jacks CC, Threadgill AY, Sidlovsky TC. Evidence to support treatment options for children with swallowing and feeding disorders: A systematic review. *J Pediatr Rehabil Med*. 2017;10(2):107-136. Doi: 10.3233/prm-170436.

Gubiani MB, Pagliarin KC, Keske-Soares M. Tools for the assessment of childhood apraxia of speech. *Codas*. 2015;27(6):610-615. Doi: 10.1590/2317-1782/20152014152.

Muñoz-Gómez E, Inglés M, Mollà-Casanova S, Sempere-Rubio N, Serra-Añó P, Aguilar-Rodríguez M. Effects of an oral stimulation program on feeding outcomes in preterm infants: A systematic review and meta-analysis. *Phys Occup Ther Pediatr*. 2024;44(1):110-127. Doi: 10.1080/01942638.2023.2212767.

National Institute on Deafness and Other Communication Disorders. Quick statistics about voice, speech, language. <https://www.nidcd.nih.gov/health/statistics/quick-statistics-voice-speech-language>. Last updated May 19, 2016.

Rhooms L, Dow K, Brandon C, Zhao G, Fucile S. Effect of unimodal and multimodal sensorimotor interventions on oral feeding outcomes in preterm infants: An evidence-based systematic review. *Adv Neonatal Care*. 2019;19(1):E3-e20. Doi: 10.1097/anc.0000000000000546.

Riaz Y, Sergi C. Feeding disability in children. *Statpearls*. Treasure Island (FL): StatPearls Publishing Copyright © 2021, StatPearls Publishing LLC; 2021. <https://www.ncbi.nlm.nih.gov/books/NBK564306/>.

Roulstone SE, Marshall JE, Powell GG, et al. Evidence-based intervention for preschool children with primary speech and language impairments: Child Talk – an exploratory mixed-methods study. Southampton (UK): NIHR Journals Library (Programme Grants for Applied Research, No. 3.5.). <https://pubmed.ncbi.nlm.nih.gov/26312364/>. Doi: 10.3310/pgfar03050. Published August 2015.

Sharp WG, Volkert VM, Scahill L, McCracken CE, McElhanon B. A systematic review and meta-analysis of intensive multidisciplinary intervention for pediatric feeding disorders: How standard is the standard of care? *J Pediatr*. 2017;181:116-124.e114. Doi: 10.1016/j.jpeds.2016.10.002.

Sheikh-Mohamed SO, Wilson H, Fucile S. Interventions to enhance achievement to independent oral feeds in premature infants: A scoping review. *Phys Occup Ther Pediatr*. 2024;44(3):295-315. Doi: 10.1080/01942638.2023.2271064.

Shortland HL, Hewat S, Vertigan A, Webb G. Orofacial myofunctional therapy and myofunctional devices used in speech pathology treatment: A systematic quantitative review of the literature. *Am J Speech Lang Pathol*. 2021;30(1):301-317. Doi: 10.1044/2020_ajslp-20-00245.

Stachler RJ, Francis DO, Schwartz SR, et al. Clinical practice guideline: Hoarseness (dysphonia) (update). *Otolaryngol Head Neck Surg*. 2018;158(1_suppl):S1-S42. Doi: 10.1177/0194599817751030.

Tosh R, Arnott W, Scarinci N. Parent-implemented home therapy programmes for speech and language: A systematic review. *Int J Lang Commun Disord*. 2017;52(3):253-269. Doi:10.1111/1460-6984.12280.

Walton K, Daniel AI, Mahood Q, et al. Eating behaviors, caregiver feeding interactions, and dietary patterns of children born preterm: A systematic review and meta-analysis. *Adv Nutr*. 2022;13(3):875-912. Doi: 10.1093/advances/nmac017.

World Health Organization. International Classification of Functioning, Disability and Health: ICF. Geneva, Switzerland: World Health Organization; <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>. Published 2001.

Zhao S, Jiang H, Miao Y, et al. Effects of implementing non-nutritive sucking on oral feeding progression and outcomes in preterm infants: A systematic review and meta-analysis. *PLoS One*. 2024;19(4):e0302267. Doi: 10.1371/journal.pone.0302267.

Policy updates

4/2017: initial review date and clinical policy effective date: 6/2017

6/2018: Policy references updated.

6/2019: Policy references updated. Policy modified and ID changed.

6/2020: Policy references updated. Limitations modified.

6/2021: Policy references updated. Coverage modified.

12/2022: Policy references updated.

12/2023: Policy references updated.

12/2024: Policy references updated.