



BlueCross BlueShield
of Alabama

Name of Blue Advantage Policy:
Constraint-Induced Movement or Language Therapy

Policy #: 188

Latest Review Date: June 2022

Category: Therapy

BACKGROUND:

Blue Advantage medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*
 - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
 - *Furnished in a setting appropriate to the patient's medical needs and condition;*
 - *Ordered and furnished by qualified personnel;*
 - *One that meets, but does not exceed, the patient's medical need; and*
 - *At least as beneficial as an existing and available medically appropriate alternative*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill **Original Medicare for covered services that are related to **clinical trials** that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Blue Advantage will treat **constraint-induced movement therapy** for the treatment of motor disorders such as those caused by stroke, traumatic brain injury, or cerebral palsy as a **non-covered** benefit and is **investigational**.

Blue Advantage will treat **constraint-induced language therapy for the treatment of aphasia** as a **non-covered** benefit and as **investigational**.

For sensory and/or auditory integration therapy, please refer to Blue Advantage medical policy #333- *Sensory Integration Therapy and Auditory Integration Therapy*.

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

Constraint-induced movement therapy (CIMT), also known as constraint-induced therapy (CIT) or forced use movement therapy, is a therapeutic approach to rehabilitation of movement after stroke or other neurologic events. CIMT has been used to improve motor function in patients following CVA. The intensity and schedule of delivery of CIMT is different from that of traditional physical therapy. CIMT involves a technique of restraining the unimpaired limb and forcing the use of the impaired limb during normal daily activities and rehabilitation exercises. The non-paretic upper extremity is secured in a sling for 90% of waking hours, while the paretic arm receives intensive training in a variety of tasks six hours per day for two to three weeks. Pediatric CIT may also be referred to as ACQUIREc Therapy.

CIMT has been used in patients with chronic and subacute CVA, chronic traumatic brain injury, incomplete spinal cord injury, cerebral palsy, fractured hip, phantom limb pain, as well as musicians with focal hand dystonia. The exact mechanism by which CIMT produces its therapeutic effect is not known, but imaging studies suggest that use-dependent cortical reorganization may occur after CI therapy.

Recently, constraint-induced language therapy (CILT) or constraint-induced aphasia therapy (CIAT) has been used to treat patients with aphasia. CILT differs from usual aphasia treatment approaches in that no compensatory nonverbal communications (e.g., gesture, drawing, and writing) are allowed during the language activities. Improved verbal responses are the goal of treatment. Proponents of this therapy hypothesize that by limiting the patient's use of compensatory communications or even giving up on the message altogether during the therapy session, the brain is forced to adapt and find an alternate way to express the idea, i.e.,

verbalization and spoken words. Treatment is intense and frequent lasting six hours per day for five days per week.

KEY POINTS:

Literature review completed through June 2022.

Summary of Evidence

There continues to be little evidence to evaluate the efficacy of CIMT for motor disorders. Among three small controlled trials published to date, there were trends supporting a treatment effect. Because the methods and outcomes used varied considerably among these trials, it is unclear which techniques, if any, are clinically useful.

A literature search identified one randomized controlled trials for using CILT to treat aphasia. The authors of this trial could not rule out that the possibility that conventional therapy performed in a massed-practice fashion also could result in pronounced behavioral improvement within a few days. In addition, small case series reporting on a limited number of participants with short follow-up were noted. There is little evidence to evaluate the efficacy of CILT for aphasia.

Finally, there is no documented standardized protocol for performing CIMT. Future studies are needed to determine the best protocol for sustained results.

KEY WORDS:

Constraint-induced movement therapy (CIMT), forced use movement therapy, constraint-induced therapy, CIT, constraint-induced language therapy, CILT, constraint-induced aphasia therapy, CIAT, ACQUIREc Therapy

APPROVED BY GOVERNING BODIES:

Not applicable

BENEFIT APPLICATION:

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

CURRENT CODING:**CPT codes:**

These services should be billed as a global fee at the end of therapy under the unlisted code.

92700	Unlisted otorhinolaryngological service or procedure
97799	Unlisted physical medicine/rehabilitation service or procedure

These procedures have also been identified as being billed on the following:

97110	Therapeutic procedure, one or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance; range of motion and flexibility
97112	Therapeutic procedure, one or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities
97161	Physical therapy evaluation: low complexity, requiring components. (Effective 01/01/17)
97162	Physical therapy evaluation: moderate complexity, requiring components (Effective 01/01/17)
97163	Physical therapy evaluation: high complexity, requiring components (Effective 01/01/17)
97164	Re-evaluation of physical therapy established plan of care, requiring components (Effective 01/01/17)
97165	Occupational therapy evaluation, low complexity, requiring components (Effective 01/01/17)
97166	Occupational therapy evaluation, moderate complexity, requiring components (Effective 01/01/17)
97167	Occupational therapy evaluation, high complexity, requiring components (Effective 01/01/17)
97168	Re-evaluation of occupational therapy established plan of care, requiring components (Effective 01/01/17)
97530	Therapeutic activities, direct (one on one) patient contact (use of dynamic activities to improve functional performance), each 15 minutes

PREVIOUS CODING:

CPT codes:

97001	Physical therapy evaluation (Deleted 12/31/16)
97002	Physical therapy re-evaluation (Deleted 12/31/16)
97003	Occupational therapy evaluation (Deleted 12/31/16)
97004	Occupational therapy re-evaluation (Deleted 12/31/16)

REFERENCES:

1. Bonifer N, Anderson KM. Application of constraint-induced movement therapy for an individual with severe chronic upper extremity hemiplegia. *Physical Therapy*, April 2003; 83(4): 384-398.
2. Boyd RN, et al. Management of upper limb dysfunction in children with cerebral palsy: A systematic review. *European Journal of Neurology*, November 2001; 8 Suppl 5: 150-166.
3. Brown J. Constraint induced therapy for aphasia. *Advance for Speech Language Pathologists and Audiologists* 2004; 14(40):14.
4. Chiu HC, Ada L. Constraint-induced movement therapy improves upper limb activity and participation in hemiplegic cerebral palsy: A systematic review. *J Physiother.* 2016;62(3):130-137.
5. Dromerick A, et al. Does the application of constraint-induced movement therapy during acute rehabilitation reduce arm impairment after ischemic stroke? *Stroke*, December 2000; 31(12): 2984-2988.
6. Fleet, A., Page, S., et al. Modified Constraint-Induced Movement Therapy for Upper Extremity Recovery Post Stroke: What Is the Evidence? *Top Stroke Rehabil* 2014; 21(4):319–331.
7. Kunkel A, et al. Constraint-induced movement therapy for motor recovery in chronic stroke patients. *Archives Physical Medicine Rehabilitation*, June 1999; 80(6): 624-628.
8. Liepert J, et al. Treatment-induced cortical reorganization after stroke in humans. *Stroke* 2000; 31: 1210-1216.
9. Mark VW, Taub E, Uswatte G, et al. Constraint-induced movement therapy for the lower extremities in multiple sclerosis: case series with 4-year follow-up. *ACRM* 2013;94:75-60.
10. Miller, G. Management and prognosis of cerebral palsy. UpToDate, Post TW (Ed), Waltham, MA. This topic last updated: August 2018. Available at: < www.uptodate.com > (accessed on September 17, 2018.)
11. Martínez-Costa Montero MC, Cabeza AS. Effectiveness of constraint-induced movement therapy in upper extremity rehabilitation in patients with cerebral palsy: A systematic review. *Rehabilitacion (Madr)*. 2020 Nov 30.

12. Miltner WH. Effects of constraint-induced movement therapy on patients with chronic motor deficits after stroke: A replication. *Stroke*, March 1999; 30(3): 586-592.
13. Page SJ, et al. Modified constraint induced therapy: A randomized feasibility and efficacy study. *Journal of Rehabilitation Research & Development*, Sept/Oct 2001, Vol. 38, No. 5.
14. Page SJ, et al. Modified constraint-induced therapy after subacute stroke: A preliminary study. *Neurorehabilitation and Neural Repair*, September 2002; 16(3): 290-295.
15. Pulvermüller F, Neininger B, Elbert T, et al. Constraint-induced therapy of chronic aphasia after stroke. *Stroke* 2001; 32:1621-26.
16. Raymer A. Constraint-induced language therapy. A systematic review. *The ASHA Leader* 2009. Available at www.asha.org/Publications/leader/2009/090210/090210e.htm.
17. Schaechter JD, et al. Motor recovery and cortical reorganization after constraint-induced movement therapy in stroke patients: A preliminary study. *Neurorehabilitation and Neural Repair*, December 2002; 16(4): 326-338.
18. Sterling C, Taub E, Davis D et al. Structural neuroplastic change after constraint-induced movement therapy in children with cerebral palsy. *Pediatrics* 2013;131:e1664.
19. Taub E, et al. Constraint-induced movement therapy: A new family of technique with broad application to physical rehabilitation—A clinical review. *Journal of Rehabilitation Research and Development*, July 1999, Vol. 36, No. 3, pp. 237-251.
20. Taub E, et al. Constraint-induced movement therapy to enhance recovery after stroke. *Current Atherosclerosis Report*, July 2001; 3(4): 279-286.
21. Taub E, et al. Efficacy of constraint-induced motor therapy for children with cerebral palsy with asymmetric motor impairment. *Pediatrics*, February 2004, www.findarticles.com/p/articles/mi_m0950/is_2_113/ai_113646332/print.
22. Taub E. New treatments in neurorehabilitation founded on basic research. *Nature Reviews/Neuroscience*, March 2002, Vol. 3, pp. 228-238.
23. Taub E, et al. Technique to improve chronic motor deficit after stroke. *Archives Physical Medicine Rehabilitation*, April 1993, Vol. 74, pp. 347-354.
24. van der Lee JH. Constraint-induced therapy for stroke: More of the same or something completely different? *Current Opinions in Neurology*, December 2001; 14(6): 741-744.
25. van der Lee JH. Forced use of the upper extremity in chronic stroke patients: Results from a single blind randomized clinical trial. *Stroke*, November 1999; 30(11): 2369-2375.
26. Winstein CJ, et al. Methods for a multisite randomized trial to investigate the effect of constraint-induced movement therapy in improving upper extremity function among adults recovering from a cerebrovascular stroke. *Neurorehabilitation and Neural Repair*, September 2003; 17(3): 137-152.
27. Wolf SL, Winstein CJ, Miller JP, et al. Effect of constraint-induced movement therapy on upper extremity function 3 to 9 months after stroke. The EXCITE randomized clinical trial. *JAMA*, November 2006, Vol. 296, No. 17, pp. 2095-2104.
28. Wolf SL, Winstein CJ, et al. Retention of upper limb function in stroke survivors who have received constraint-induced movement therapy: the EXCITE randomized trial. *Lancet Neurol* 2008; 7: 33-40.

29. www.strokeassociation.org. Constraint-induced language therapy for aphasia. 2010. Last accessed December 2011.
30. Yoon, JA, Koo B, Shin MJ, et al Effect of Constraint-Induced Movement Therapy and Mirror Therapy for Patients with Subacute Stroke. *Annals of Rehabilitation Medicine* 2014; 38(4):458-466.

POLICY HISTORY:

Adopted for Blue Advantage, March 2005

Available for comment May 1-June 14, 2005

Medical Policy Group, July 2006

Medical Policy Group, July 2008

Medical Policy Group, July 2010

Medical Policy Group, December 2011

Available for comment January 11 - February 27, 2012

Medical Policy Group, December 2012

Medical Policy Group, April 2014

Medical Policy Group, June 2015

Medical Policy Group, October 2015

Medical Policy Group, December 2016

Medical Policy Group, September 2018 (3): Updates to Key Points and References. No changes to policy statement or intent.

Medical Policy Group, October 2019

Medical Policy Group, June 2021

Medical Policy Group, June 2022: Reviewed by consensus. A peer-reviewed literature analysis was completed and no new information was identified that would alter the coverage statement of this policy.

This medical policy is not an authorization, certification, explanation of benefits, or a contract. Eligibility and benefits are determined on a case-by-case basis according to the terms of the member's plan in effect as of the date services are rendered. All medical policies are based on (i) research of current medical literature and (ii) review of common medical practices in the treatment and diagnosis of disease as of the date hereof. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment.

This policy is intended to be used for adjudication of claims (including pre-admission certification, pre-determinations, and pre-procedure review) in Blue Cross and Blue Shield's administration of plan contracts.