



CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all health benefit plans administered by CIGNA Companies including plans formerly administered by Great-West Healthcare, which is now a part of CIGNA.

Effective Date 9/15/2010
Next Review Date 9/15/2012
Coverage Policy Number 0096

Subject **Physical Therapy**

Table of Contents

Coverage Policy	1
General Background	3
Coding/Billing Information	9
References	11
Policy History	15

Hyperlink to Related Coverage Policies

- Anodyne® Therapy
- Biofeedback
- Cardiac Rehabilitation (Phase II Outpatient)
- Complex Lymphedema Therapy (Complete Decongestive Therapy)
- Electrical Stimulators
- Inpatient Acute Rehabilitation
- Outpatient Acute Rehabilitation
- Massage Therapy
- Occupational Therapy
- Plantar Fasciitis Treatments
- Scoliosis Treatments, Idiopathic
- Work Hardening Programs

INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations. Proprietary information of CIGNA. Copyright ©2011 CIGNA

Coverage Policy

In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Under many benefit plans, coverage for outpatient physical therapy programs and physical therapy provided in the home is subject to the terms, conditions and limitations of the applicable benefit plan's Short-Term Rehabilitative Therapy benefit and schedule of copayments. Under many plans, coverage of inpatient physical therapy is subject to the terms, conditions and limitations of the Other Participating Health Care Facility/Other Health Care Facility benefit as described in the applicable plan's schedule of copayments.

Outpatient physical therapy is the most medically appropriate setting for these services unless the individual independently meets coverage criteria for a different level of care.

Many benefit plans have exclusion language and/or limitations that impact coverage of physical therapy, including any or all of the following:

- **A maximum allowable physical therapy benefit for duration of treatment or number of visits. When this is present and the maximum allowable benefit is exhausted, coverage will no longer be provided even if the medical necessity criteria described below are met.**
- **Specific coverage exclusions for rehabilitative services for learning disabilities, developmental delays, autism, and mental retardation and/or for that which is not restorative in nature.**
- **Specific coverage exclusions for maintenance or preventive care consisting of routine, long-term, or non-medically necessary care provided to prevent recurrences or to maintain the member's current status.**
- **Under many benefit plans formerly administered by Great-West Healthcare, physical therapy is only covered to attain the maximum level of physical and psycho-social independence following acute disease, injury, condition, or loss of body part when the physical therapy services are expected to result in significant clinical improvement within two months.**

If coverage is available for physical therapy, the following conditions of coverage apply.

CIGNA covers a physical therapy evaluation as medically necessary for the assessment of a physical impairment.

CIGNA covers a prescribed course of physical therapy by an appropriate healthcare provider as medically necessary when ALL of the following criteria are met:

- The program is designed to improve lost or impaired physical function or reduce pain resulting from illness, injury, congenital defect or surgery.
- The program is expected to result in significant therapeutic improvement over a clearly defined period of time.
- The program is individualized, and there is documentation outlining quantifiable, attainable treatment goals.

CIGNA does not cover constraint-induced movement therapy because it is considered experimental, investigational or unproven.

CIGNA does not cover physical therapy for treatment of vulvodynia because it is considered experimental, investigational or unproven.

CIGNA does not cover physical therapy for the following as they are excluded from many benefit plans and considered not medically necessary when used for these purposes:

- treatment provided to prevent or slow deterioration in function or prevent reoccurrences
- treatment intended to improve or maintain general physical condition
- long-term rehabilitative services when significant therapeutic improvement is not expected
- physical therapy that duplicates services already being provided as part of an authorized therapy program through another therapy discipline (e.g., occupational therapy)

CIGNA does not cover the following treatments/programs because they are considered to be nonmedical, educational or training in nature and thus are not medically necessary. In addition, these treatments/programs are specifically excluded under many benefit plans:

- work hardening programs
- back school
- vocational rehabilitation programs and any program with the primary goal of returning an individual to work

- group physical therapy (because it is not one-on-one, individualized to the specific person's needs)
 - services for the purpose of enhancing athletic performance or for recreation
-

General Background

Physical therapy (PT) is a prescribed program of treatment generally provided to improve or restore lost or impaired physical function resulting from illness, injury, congenital defect or surgery. The physical therapist enhances rehabilitation and recovery by clarifying a patient's impairments and functional limitations and by identifying interventions, treatment goals and precautions.

PT interventions should be structured, systematic, goal-directed, individualized and restorative in nature. The PT clinical records should document the necessity for a course of PT through objective findings and subjective complaints. A PT treatment plan should include the following elements:

- planned modalities and procedures
- frequency of treatment
- attainable short- and long-term goals that can be objectively measured
- duration of treatment, with an estimated date when established goals will be achieved

There should be a reasonable expectation that the identified goals will be met. If no improvement is documented after two weeks of treatment, an alternative treatment plan should be attempted. If no significant improvement is documented after a total of four weeks, re-evaluation by the referring provider may be indicated. If measurable improvement is made, then the progress towards identified goals should be clearly documented and the treatment plan updated accordingly.

Many patients with neuromuscular, skeletal or physical motion impairment may experience improvement when following a home treatment program prescribed by their provider. Home treatment programs may include pharmacotherapy; modifications to diet and lifestyle; splinting, supporting or wrapping; and self-monitored, graded exercise therapy that does not require professional or medical supervision.

Modalities and Procedures

The American Medical Association (AMA) Current Procedural Terminology (CPT) manual defines a modality as "any physical agent applied to produce therapeutic changes to biologic tissue; includes but is not limited to thermal, acoustic, light, mechanical, or electric energy." (AMA, 2007) Modalities may be supervised, not requiring direct patient contact by the provider, or modalities may require constant attendance by a healthcare professional. Examples of supervised modalities may include application of: hot or cold packs, vasopneumatic devices, whirlpool, diathermy and infrared. Modalities that require constant attendance include: ultrasound, electrical stimulation, and iontophoresis.

The AMA CPT manual defines therapeutic procedures as "A manner of effecting change through the application of clinical skills and/or services that attempt to improve function." (AMA, 2007) Examples of therapeutic procedures include therapeutic exercise to develop strength and endurance, range of motion and flexibility; neuromuscular re-education of movement, balance and coordination; gait training; and manual therapy techniques (e.g., manual traction).

Passive modalities are most effective during the acute phase of treatment, since they are typically directed at reducing pain and swelling. They may also be utilized during the acute phase of the exacerbation of a chronic condition. These procedures include: electrical stimulation, ultrasound, therapeutic heat, cryotherapy, passive assistive exercise, diathermy, ultrasound and massage. Passive modalities are rarely beneficial alone and are most effective when performed as part of a comprehensive treatment approach. Improvement should be seen within the first or second visit. After one or two weeks, the clinical effectiveness of passive modalities begins to decline significantly. In some rare situations, passive modalities may be indicated for up to one or two months as part of comprehensive physical therapy program. The need for passive modalities beyond two weeks should be objectively documented in the clinical record.

Active therapeutic procedures are typically started as swelling and inflammation are reduced. The need for stabilization and support is replaced by the need for increased range of motion and restoration of function. Active care elements include increasing range of motion, strengthening primary and secondary stabilizers of a given region, and increasing the endurance capability of the muscles. Care focuses on active participation of the patient in their exercise program. Gait training, muscle strengthening, and progressive resistive exercises are considered active procedures. Many active procedures may be performed independently and safely by the patient in a nonmedically supervised setting. In general, patients should progress from active procedures to a home exercise program.

Below is a list of interventions that are associated with PT. This material is for informational purposes only and is not indicative of coverage.

- activities of daily living training and functional activities: training in self-care activities
- aquatic therapy or pool therapy: exercise in a gravity-reduced, nonweight-bearing environment performed for muscle strengthening
- diathermy: local temperature elevation within the tissues believed to promote healing; produced by application of high-frequency current, usually ultrasonic or microwave current; commonly used in acute phases of trauma recovery
- gait analysis: assessment of muscle function and joint position during ambulation; includes direct visual observation, may include videotaping (at different times for objective, permanent record), temporal and stride measurements of gait pathology, direct plantar surface measurements indicating foot-floor contact, pressure measurements with strain-gauge indicating vertical, medial-lateral, and fore-aft plane reactions, optimal tracking of activity at specific anatomic landmarks
- gait training: progressive training in ambulation and stair climbing, may involve the use of an assistive device such as a cane
- hot and cold packs: the use of moist heat is intended to increase blood flow to the area, reduce pain and improve motion. Typically performed in the acute phase of an injury, the application of cold reduces blood flow to the area to reduce swelling and for pain relief.
- hydrotherapy: application of water in treatment of disease (e.g., contrast baths, whirlpool, Hubbard tank)
- infrared: involves the treatment of damaged tissues with light from a single beam of low-intensity infrared laser or light-emitting diode; the energy is perceived as heat in superficial tissues; for stimulation of circulation (local and general) and pain relief (Note: this does not refer to the Anodyne[®] Therapy System, which involves delivery of infrared with an array of light-emitting diodes, also referred to as monochromatic near-infrared photoenergy [MIRE] therapy. Please refer to CIGNA HealthCare's Coverage Position titled "Anodyne[®] Therapy")
- iontophoresis: treatment based on the principle of like-ion repulsion; delivered by continuous direct current (DC)
- isokinetic exercise: muscle contraction during which force is exerted but muscle shortening is maximal
- massage therapy: applying pressure with the hands to affect primarily the musculoskeletal, circulatory-lymphatic system and nervous system to treat discomfort or pain
- myofascial release: soft-tissue mobilization; similar to the effect achieved by massage therapy
- neuromuscular stimulation: electrical current applied to stimulate motor nerves to induce muscle contraction
- orthotic training: training with orthotics such as braces or splints
- paraffin baths: repeated immersion and withdrawal of limb into warm paraffin soak until temporarily encased; used for topical heat application to traumatized or inflamed extremities
- prosthetic training: training/re-education with prosthetic devices
- range of motion (ROM): active or passive arcs of mobility as permitted by joint's construction; should be confined to a pain-free arc, which increases as healing occurs
- therapeutic exercises: exercise to improve functional status by increasing muscle strength, improving flexibility and increasing pulmonary function
- traction: can be accomplished manually or mechanically; involves the pulling on extremities in order to relieve pain or to treat spasm
- transcutaneous nerve stimulation (TENS): a form of electric stimulation that is thought to generate neuroregulatory peripheral and central effects and modulate pain transmission

- ultrasound therapy (US): sub-audible, high-frequency vibrations that produce non-thermal physiologic effects and may be perceived as heat in superficial tissues
- ultraviolet therapy (UV): energy perceived as heat in superficial tissues; also called light therapy

Literature Review

A review of the published medical literature reveals few clinical trials that address specific physical therapy modalities. Few clinical trials have been undertaken to assess the effect of individual modalities in the treatment of specific conditions. The application of therapeutic modalities is generally based on empirical experience. Rehabilitation programs typically include several treatment interventions in each session, making it difficult to draw conclusions regarding the efficacy of individual interventions for a specific musculoskeletal condition. There are several systematic reviews published that examine physiotherapy for various conditions. Taylor et al. (2007) reported on a summary of systematic reviews published from 2002 to 2005 regarding the benefits of therapeutic exercise. Outcome measures included the effect of therapeutic exercise in terms of impairment, activity limitations or participation restriction. Thirty-eight studies were included and classified into these conditions: six neurology; six cardiopulmonary; six other and twenty musculoskeletal (including: spinal n=7; peripheral n=9, arthritis n=4). The review found that there is strong evidence that therapeutic exercise was effective for patients with multiple sclerosis, osteoarthritis, subacute and chronic low back pain, chronic heart failure, coronary heart disease, chronic heart failure, coronary heart disease, chronic obstructive pulmonary disease (COPD), and intermittent claudication and after lumbar disc surgery. It was noted that exercise interventions that led to improvements were diverse but one common theme was that effective exercise programs were likely to be intensive. Therapy that led to improvements in individuals with multiple sclerosis, coronary heart disease, and COPD involved participants exercising four to five times a week at a relatively high intensity. The review also indicated that programs that were more targeted and individualized exercise were more effective. This review included systematic reviews of reasonable to good quality; however, it was noted in some of the systematic reviews some of the included trials lacked quality.

Several Cochrane reviews were performed that examined physiotherapy. Pollock et al. (2007) conducted a review 21 trials to determine if there is a difference in the recovery of postural control and lower limb function in patients with stroke depending on the physiotherapy treatment approach. The results indicated that a mixed approach was significantly more effective than no treatment or placebo control for improving functional independence. It was noted in the study that there was no significant evidence that any single approach had a better outcome than any other single approach or no treatment control. Green et al. (2003) conducted a review of 26 studies to determine the efficacy of physiotherapy for disorders resulting in pain, stiffness and/or disability of the shoulder. The methodological quality was variable, and population was small. The review noted that the trials resulted in little overall evidence to guide treatment; however, there is evidence to support the use of some interventions in specific and circumscribed cases. Thomson et al. (2002) conducted a review of 31 trials that examined physiotherapist-led programs and interventions for rehabilitation of anterior cruciate ligament, medial collateral ligament and meniscal injuries of the knee in adults. It was noted that no trial provided sufficient evidence to establish the relative effectiveness of the interventions. It was noted that methodological quality was highly variable, and no trial provided sufficient evidence to establish the relative effectiveness of the interventions. The authors concluded that the available evidence is wide-ranging in terms of scope but insufficient to establish the relative effectiveness of the various approaches and methods in current use.

Professional Societies/Organizations

The American College of Rheumatology Subcommittee on Osteoarthritis Guidelines published recommendations for the medical management of osteoarthritis (OA) of the hip and knee (2000). The guidelines included the following notation regarding physical therapy: "Individuals with OA of the lower extremity may have limitations that impair their ability to perform activities of daily living (ADLs), such as walking, bathing, dressing, use of the toilet, and performing household chores. Physical therapy and occupational therapy play central roles in the management of patients with functional limitations. The physical therapist assesses muscle strength, joint stability, and mobility; recommends the use of modalities such as heat (especially useful just prior to exercise); instructs patients in an exercise program to maintain or improve joint range of motion and periarticular muscle strength; and provides assistive devices, such as canes, crutches, or walkers, to improve ambulation."

The American Physical Therapy Association (APTA) published criteria for standards of practice for physical therapy (APTA, 2009). The criteria include the following regarding the plan of care:

- based on examination, evaluation, diagnosis, and prognosis

- identifies goals and outcomes
- describes the proposed intervention, including frequency and duration
- includes documentation that is dated and appropriately authenticated by the physical therapist who established the plan of care

The criteria note that the interventions are “consistent with the results of the examination, evaluation, diagnosis, prognosis, and plan of care.” The criteria include the following notations regarding the interventions (APTA, 2009):

- based on the examination, evaluation, diagnosis, prognosis, and plan of care
- provided under the ongoing direction and supervision of the physical therapist
- altered in accordance with changes in response or status
- provided at a level that is consistent with current physical therapy practice

Regarding discharge and discontinuation of services, the criteria includes the following statements (APTA, 2009):

- The physical therapist discharges the patient/client from physical therapy services when the anticipated goals or expected outcomes for the patient/client have been achieved.
- The physical therapist discontinues intervention when the patient/client is unable to continue to progress toward goals or when the physical therapist determines that the patient/client will no longer benefit from physical therapy.

Constraint-Induced Movement Therapy (CIMT)

Constraint-induced movement therapy (CIMT) is an intervention that has been proposed for neurological conditions that involve hemiparesis. The therapy involves constraining the unaffected arm or hand with a sling, glove or mitt. During the time of constraint, concentrated, repetitive training of the more affected limb using a shaping technique is provided—the shaping involves: providing explicit verbal feedback and verbal reward for small improvements in task performance; selecting tasks that were tailored to address the motor deficits of the individual patient; helping the patient to carry out parts of a movement sequence, if they were incapable of completing the movement on their own at first; and (d) systematically increasing the difficulty of the task performed (Hoare, 2007). CIMT is also referred to as constraint-induced therapy or forced use therapy and is primarily provided by physical therapists and occupational therapists. It is based on the theory of “learned non-use”—it is theorized that learned non-use develops during the early stages following a stroke as the individual begins to compensate for difficulty using the impaired limb by increased reliance on unaffected limb (Grotta, et al., 2004). CIMT involves intensive individualized therapy with up to six–eight hours of therapy provided per day. Other forms of modified CIMT have been developed with less therapy provided, but longer periods of restraint (Wolf, 2007). CIMT is a multi-faceted intervention that has several variations in its design ranging from: method of restraint; length of restraint (per day, weeks); type and duration of therapy; intervention environment and intervention provider (Hoare, et al., 2007).

Literature Review—Constraint-Induced Movement Therapy (CIMT) for Stroke

Sirtori et al. (2009) conducted a Cochrane review that examined CIMT for upper extremities in stroke patients. The review included 19 studies that involved 619 individuals. The majority of the studies included participants who had some residual ability of the upper arm and hand, limited pain or spasticity, and absence of cognitive impairment. The impact of CIMT indicated a modest significant benefit. Several methodological weaknesses were identified in the studies, including no assessment of potential harms, short-term follow-up and possible conflicts of interest. There were two small studies that assessed the duration of benefit a few months after treatment, and no evidence was found that the benefit was maintained. The authors note that, “As CIMT is a multifaceted intervention (restraint of the unaffected arm plus several hours of different exercises), it is not clear whether the effects are due to one or more characteristics of the technique, so further studies should focus on detecting the origin of these improvements. It will be useful to establish which subgroup of patients are most likely to respond, and which would be the best constraint technique in relation to anatomical region, exercise time, and time since stroke.” The review note that there is an indication that CIMT is associated with a moderate reduction in disability measured some months after the end of treatment, but there is no evidence of persisting benefit. The authors conclude that further randomized trials, with larger sample sizes and longer follow-up are justified.

Brogardh et al. (2009) reported four-year of follow-up of arm and hand movement in 14 patients after treatment with CIMT. It was found that the participants maintained their hand function, as measured by the Sollerman hand function test; the self-reported use and quality of movements of the affected hand, as measured by the Motor Activity Log test, had decreased compared to post-treatment and three months follow-up ($p < 0.01$), but was higher than pretreatment ($p < 0.05$). Limitations of the study included the small size and lack of randomization.

Dromerick et al (2009) conducted a three-arm, single-blind, randomized, controlled trial of very early CIMT during stroke rehabilitation (VECTORS study). The study included 52 patients that were randomized during acute inpatient rehabilitation to CIMT ((two hours a day of shaping therapy and six hours of wearing constraining mitten), high-intensity CIMT (three hours of therapy and wearing of mitten for 90% of day) or traditional upper extremity therapy. The primary endpoint was the total Action Research Arm Test (ARAT) measured at 90 days after stroke onset. It was found that during the acute inpatients rehabilitation that CIMT was not superior to an equal amount of traditional therapy. In addition it was found that there was an inverted dose response effect, in which the higher intensity CIMT led to significantly less upper extremity improvement at 90 days.

Wolf et al. (2008) reported on a multi-site, randomized, single-blind trial that compared the effects of a two-week program of CIMT to usual and customary care in upper extremity function among patients who had a stroke within the previous three to nine months. Patients were assigned to receive either CIMT or usual and customary care ($n=116$) which ranged from no treatment after concluding formal rehabilitation to pharmacologic or physiotherapeutic interventions. The main outcome measurements were the Wolf Motor Function Test (WMFT) and the Motor Activity Log (MAL). From baseline to 12 months, there were greater improvements in the CIMT group than in the control group on all primary and secondary measures of paretic upper-extremity function at post-treatment ($p < .05$ for all) with exception of two WMFT strength items. The study noted that the control group demonstrated significant improvement in most outcomes from baseline to 12-month follow-up. In 2008, Wolf et al. published an assessment of retention of improvements through 24 months. No regression was observed from the treatment effects observed at 12 months after treatment and during the next 12 months for the primary outcome measures of WMFT and MAL. Additional changes were in the direction of increased therapeutic effect were seen.

Literature Review—Constraint-Induced Movement Therapy (CIMT) for Children with Cerebral Palsy

Hoare et al. (2007) reported on a Cochrane review of CIMT in the treatment of the upper limb in children with hemiplegic cerebral palsy. Three studies were included in the review. One randomized controlled trial indicated a trend for positive treatment effect with CIMT using the Dissociated Movement subscale of the Quality of Upper Extremity Skills Test. A clinically controlled trial showed a significant treatment effect that favored modified CIMT using the Assisting Hand Assessment at two and six months. The authors concluded that, "Given the limited evidence, the use of CIMT, modified CIMT and Forced use should be considered experimental in children with hemiplegic cerebral palsy. Further research using adequately powered RCTs [randomized, controlled, trials], rigorous methodology and valid, reliable outcome measures is essential to provide higher level support of the effectiveness of CIMT for children with hemiplegic cerebral palsy."

Sakzewski et al. (2009) published a systematic review and meta-analysis of upper-limb therapeutic interventions for children with congenital hemiplegia. There were four intervention approaches identified, including CIMT. Regarding CIMT, the authors note preliminary results could suggest CIMT may contribute to improved efficiency and quality of UL movement and may increase spontaneous use of the limb in daily activity; however, it is also noted that the results should be viewed with caution since many of the outcome measures used have no reported reliability or validity in children with congenital hemiplegia. It is not clear if the improvement seen was the result of CIMT or a response to an increased intensity of intervention. For studies involving CIMT limitations included small sample size and major baseline differences between groups. It is not clear whether the constraint is essential and what type and intensity of training will achieve improvements. The authors conclude that additional research is needed to justify more-intensive approaches such as CIMT.

Eliasson et al. (2005) conducted a study to evaluate the effects of a modified version of CIMT on bimanual hand-use in children with hemiplegic cerebral palsy. Twenty-one children completed the CIMT program and 20 children served as a control group. The children in the CIMT group were expected to wear a glove for two hours each day over a period of two months. Assisting Hand Assessment (AHA) was used to evaluate the treatment. The children were assessed at onset, after two months, and six months after the first assessment. A significant

interaction was found between group and AHA measure ($p=0.005$). The study found that children who received CIMT improved their ability to use their hemiplegic hand significantly more than the children in the control group after 2 months. The effect size was found to be high after treatment and remained medium at six months.

In 2004, Taub reported on a randomized, controlled trial of 18 children with hemiparesis associated with cerebral palsy. The patients were assigned to CIMT or to conventional treatment. CIMT included intensive training of the more-impaired upper extremity for six hours per day for 21 consecutive days couple with bivalved casting of child's less affected upper extremity. When compared with the control group, the CIMT group acquired significantly more new classes of motoric skills (9.3 vs 2.2); demonstrated significant gains in the mean amount (2.1 vs 0.1) and quality (1.7 vs 0.3) of more-affected arm use at home. In a laboratory motor function test the CIMT group displayed substantial improvement including increases in unprompted use of the more-affected upper extremity (52.1% vs 2.1% of items). These benefits were noted to be maintained over six months.

Professional Societies/Organizations—Constraint-Induced Movement Therapy (CIMT)

Veterans Affairs/Dept of Defense (VA/DoD) published guidelines that have also been endorsed by American Heart Association/American Stroke Association (AHA/ASA)—Clinical Practice Guideline for the Management of Adult Stroke Rehabilitation Care (Bates, et al., 2005). The guidelines note that, "Use of constraint-induced therapy should be considered for a select group of patients—that is, patients with 20 degrees of wrist extension and 10 degrees of finger extension, who have no sensory and cognitive deficits (Evidence Level C)." (C: a recommendation that the intervention may be considered)

Royal college of Physicians/Intercollegiate Stroke Working Party (United Kingdom) published guidelines for management of stroke—National Guidelines for Stroke (2004). The guidelines include the following regarding CIMT: "Constraint-induced movement therapy (CIT) involves restricting the use of the non-stroke upper limb while at the same time encouraging active use of the stroke-affected upper limb. The high intensity CIT delivered in research trials may be difficult to deliver in routine practice and has only been proven for the upper limb in certain well-defined situations." The guidelines include this recommendation, "Constraint-induced therapy to increase the use of the affected arm should be considered in patients with at least 10 degrees of active wrist and finger extension, who are more than a year post stroke and who can walk independently without an aid."

Ottawa panel evidence-based clinical practice guidelines for post-stroke rehabilitation (2006). The review included five randomized controlled trials for stroke patients ($n=136$). The treatment types in the studies included: CIMT versus standard occupational therapy ($n=20$); CIMT versus bimanual training based upon NDT ($n=62$); CIMT given for 6 hours per day versus CIMT given for 3 hours per day ($n=15$); CIMT versus control ($n=16$); CIMT versus standard physical therapy ($n=23$). CIMT consisted of constraint of the upper unaffected extremity with either an arm sling and a hand splint or padded mittens or mittens without thumbs while the hemiplegic arm was used to perform functional tasks or ADLs. Treatment duration ranged from one to six hours per day, and frequency ranged from five to seven days a week, over an eight-day to two-week period. The Ottawa Panel found good evidence to recommend the consideration of the inclusion of CIMT in the treatment of subacute stroke patients with some active finger and wrist extension prior to CIMT (grade A for motor function [Action Research Arm-ARA]; pinch and total and grade C+ for motor function (ARA grasp, gross motor, and grip). The Panel also found good evidence to recommend that CIMT be considered as an intervention for the treatment of chronic stroke patients with some active finger and wrist extension prior to CIMT (grade A for change in functional status). (grade A—evidence from one or more RCTs of a statistically significant, clinically important benefit; grade C+—evidence of clinical importance but not statistical significance)

The Cerebral Palsy International Research Foundation (CPIRF) published a research fact sheets regarding CIMT (CPIRF, 20007). The fact sheet notes that, "While the evidence to date is promising, considerably more work is required, including large-scale, multi-site randomized control trials. Most of the studies to date have used differing outcome measures, the types of practice and restraints (e.g., casts, slings, mitts) and varying treatment durations. Since it is not the restraint that induces change, rather it is the environment that is used to solicit intensive practice, there is no evidence supporting the use of more invasive devices such as bi-valved casts." It was also noted that, "In light of recent studies suggesting efficacy with modest restraint (using a mitt) for just two hours per day in very young children, long-periods of restraint should not be used until these risks in young children have been determined. Dosing effects need to be determined as well. Both modified (i.e., reduced) schedules and more passive "forced use" paradigms have been shown to be effective in younger children, but the extent to which more intensive and active treatment is required with increasing age is unknown.

Furthermore, restraining the unaffected limb without structuring the environment and providing tasks graded to provide success likely leads to frustration as a child attempts to negotiate activities within their normal routine. Left unsupervised, there would be increased risk of injury in the event of loss of balance since the child's normal protective response would be inhibited."

Physical Therapy for Vulvodynia

Vulvodynia consists of chronic discomfort or pain of the female genitalia. It is characterized by burning, stinging, irritation or rawness in cases in which there is no infection or skin disease of the vulva or vagina. Treatment approaches include discontinuation of irritants, vulvar care measures, topical, oral and intralesional medications, as well as pudendal nerve blocks. Physical therapy has been proposed as a treatment for this condition. It may include internal (vaginal and rectal) and external soft tissue mobilization and myofascial release; trigger-point pressure; visceral, urogenital, and joint manipulation; electrical stimulation; therapeutic exercises; active pelvic floor retraining (ACOG, 2006). There is insufficient evidence in the peer-reviewed literature regarding the efficacy of physical therapy for treatment of this condition.

Professional Societies/Organizations—Vulvodynia: The American Society for Colposcopy and Cervical Pathology's (ASCCP) practice management recommendations (2008) stated that physical therapy may be used in the treatment of vulvodynia to relieve pain and discomfort.

In 2006, American College of Obstetricians and Gynecologists (ACOG) and American Society for Colposcopy and Cervical Pathology (ASCCP) issued a joint opinion on the diagnosis and treatment of vulvodynia. They stated that "There are very few randomized trials of vulvodynia treatments and most treatment information is based on clinical experience, descriptive studies, or reports of expert committees. Some treatments that have been used include medication, biofeedback training, physical therapy, dietary modifications, cognitive behavioral therapy, sex counseling, and surgery. Newer treatments include acupuncture, hypnotherapy, nitroglycerin, and botulinum toxin, according to the document".

Summary

Physical therapy (PT) is a program of treatment rendered for the purpose of improving or restoring lost or impaired physical function resulting from illness, injury, congenital defect or surgery. PT should be structured, goal-directed, and individualized in nature. The therapy should be expected to result in expected to result in significant therapeutic improvement. While there are limited clinical trials published regarding the efficacy of specific PT interventions for specific conditions, it is considered a standard-of-care in management of musculoskeletal conditions.

There is a lack of evidence published in the scientific literature regarding the efficacy and long-term outcomes of constraint-induced movement therapy (CIMT). In addition the most effective protocol (e.g., level of intensity, delivery schedule) has not been identified.

There is insufficient evidence in the published, peer-reviewed scientific literature to conclude that physical therapy is effective for treatment of vulvodynia.

Coding/Billing Information

Note: This list of codes may not be all-inclusive.

Covered when medically necessary:

CPT [®] * Codes	Description
97001	Physical therapy evaluation
97002	Physical therapy re-evaluation
97010	Application of a modality to one or more areas; hot or cold packs
97012	Application of a modality to one or more areas; traction, mechanical
97014	Application of a modality to one or more areas; electrical stimulation (unattended)

97016	Application of a modality to one or more areas; vasopneumatic devices
97018	Application of a modality to one or more areas; paraffin bath
97022	Application of a modality to one or more areas; whirlpool
97024	Application of a modality to one or more areas; diathermy (eg, microwave)
97026	Application of a modality to one or more areas; infrared
97028	Application of a modality to one or more areas; ultraviolet
97032	Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes
97033	Application of a modality to one or more areas; iontophoresis, each 15 minutes
97034	Application of a modality to one or more areas; contrast baths, each 15 minutes
97035	Application of a modality to one or more areas; ultrasound, each 15 minutes
97036	Application of a modality to one or more areas; Hubbard tank, each 15 minutes
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
97113	Therapeutic procedure, one or more areas, each 15 minutes; aquatic therapy with therapeutic exercises
97116	Therapeutic procedure, one or more areas, each 15 minutes; gait training (includes stair climbing)
97124	Therapeutic procedure, one or more areas, each 15 minutes; massage, including effleurage, petrissage and/or tapotement (stroking, compression, percussion)
97140	Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), one or more regions, each 15 minutes
97530	Therapeutic activities, direct (one-on-one) patient contact by the provider (use of dynamic activities to improve functional performance), each 15 minutes
97535	Self-care/home management training (eg, activities of daily living (ADL) and compensatory training, meal preparation, safety procedures, and instructions in use of assistive technology devices/adaptive equipment) direct one-on-one contact by provider, each 15 minutes
97542	Wheelchair management (eg, assessment, fitting, training), each 15 minutes
97760	Orthotic(s) management and training (including assessment and fitting when not otherwise reported), upper extremity(s), lower extremity(s) and/or trunk, each 15 minutes
97761	Prosthetic training, upper and/or lower extremity(s), each 15 minutes
97762	Checkout for orthotic/prosthetic use, established patient, each 15 minutes

HCPCS Codes	Description
G0151	Services of physical therapist in home, health or hospice setting, each 15 minutes
S9131	Physical therapy; in the home, per diem

ICD-9-CM Diagnosis Codes	Description
V57.1	Other physical therapy
V57.81	Orthotic training
	Multiple/varied

Training in Nature/Not Medically Necessary/Not Covered:

CPT* Codes	Description
97005	Athletic training evaluation
97006	Athletic training re-evaluation

97150	Therapeutic procedure(s), group (2 or more individuals)
97537	Community/work reintegration training (eg, shopping, transportation, money management, avocational activities and/or work environment/modification analysis, work tack analysis, use of assistive technology device/adaptive equipment), direct one-on-one contact by provider, each 15 minutes
97545	Work hardening/conditioning; initial 2 hours
97546	Work hardening/conditioning; each additional hour

HCPCS Codes	Description
S8990	Physical or manipulative therapy performed for maintenance rather than restoration
S9117	Back school, per visit

ICD-9-CM Diagnosis Codes	Description
	Multiple/varied

Physical therapy not covered for the following conditions under many benefit plans. This list is not all inclusive:

ICD-9-CM Diagnosis Codes	Description
299.00-299.91	Pervasive developmental disorders
314.1	Hyperkinesia with developmental delay
315.0-315.9	Specific delays in development
317-319	Mental retardation
781.3	Lack of coordination
783.42	Delayed milestones
	Multiple/varied

Experimental/Investigational/Unproven/Not Covered:

CPT* Codes	Description
97799 [†]	Unlisted physical medicine/rehabilitation service or procedure

†Note: Experimental, investigational, unproven and not covered when used to report constraint-induced movement therapy.

ICD-9-CM Diagnosis Codes	Description
625.70-625.79	Vulvodynia

***Current Procedural Terminology (CPT®) © 2010 American Medical Association: Chicago, IL.**

References

1. Aker PD, Gross AR, Goldsmith CH, Peloso P. Conservative management of mechanical neck pain: systematic overview and meta-analysis. *BMJ*. 1996 Nov 23;313(7068):1291-6.

2. Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Klaber-Moffett J, Kovacs F, et al.; On behalf of the COST B13 Working Group on Guidelines for Chronic Low Back Pain. Chapter 4. European guidelines for the management of chronic nonspecific low back pain. *Eur Spine J*. 2006 Mar;15 Suppl 2:S192-300.
3. ACOG Committee on Gynecologic Practice. ACOG Committee Opinion: Number 345, October 2006: vulvodynia. *Obstet Gynecol*. 2006 Oct;108(4):1049-52.
4. American College of Rheumatology. Recommendations for the medical management of osteoarthritis of the hip and knee: 2000 update. American College of Rheumatology Subcommittee on Osteoarthritis Guidelines. *Arthritis Rheum*. 2000 Sep;43(9):1905-15.
5. American Medical Association (AMA) Current Procedural Terminology (CPT) 2010. American Medical Association: Chicago, IL; 2010.
6. American Physical Therapy Association (APTA). Criteria for Standards of Practice for Physical Therapy. BOD S03-06-16-38. 2006; updated: 12/14/2009. Accessed July 9, 2010. Available at URL address: http://www.apta.org/AM/Template.cfm?Section=Policies_and_Bylaws1&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=253&ContentID=32066
7. American Society for Colposcopy and Cervical Pathology's. Vulvodynia: the basics. 2008. Accessed Jul 10, 2010. Available at URL address: <http://www.asccp.org/edu/practice/vulva.shtml>
8. Bates B, Choi JY, Duncan PW, Glasberg JJ, Graham GD, Katz RC, et al.; US Department of Defense; Department of Veterans Affairs. Veterans Affairs/Department of Defense Clinical Practice Guideline for the Management of Adult Stroke Rehabilitation Care: executive summary. *Stroke*. 2005 Sep;36(9):2049-56.
9. Boyd R, Sakzewski L, Ziviani J, Abbott DF, Badawy R, Gilmore R, et al. INCITE: A randomised trial comparing constraint induced movement therapy and bimanual training in children with congenital hemiplegia. *BMC Neurol*. 2010 Jan 12;10:4.
10. Brogårdh C, Flansbjer UB, Lexell J. What is the long-term benefit of constraint-induced movement therapy? A four-year follow-up. *Clin Rehabil*. 2009 May;23(5):418-23. Epub 2009 Apr 6.
11. Centers for Medicare and Medicaid Services (CMS). Pub. 100-02, Chapter 15, Sections 220 and 230 Therapy Services. May 6, 2005. Accessed July 9, 2010. Available at URL address: <http://www.cms.hhs.gov/manuals/Downloads/bp102c15.pdf>
12. Cerebral Palsy International Research Foundation (CPIRF). Constraint-Induced Movement Therapy fact sheet. March 2007. Accessed August 12, 2010. Available at URL address: <http://cpirf.org/stories/1088>
13. Cincinnati Children's Hospital Medical Center. Evidence-based care guideline for pediatric constraint induced movement therapy (CIMT). Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2009 Feb 16.
14. Crossley K, Bennell K, Green S, Cowan S, McConnell J. Physical therapy for patellofemoral pain: a randomized, double-blinded, placebo-controlled trial. *Am J Sports Med*. 2002 Nov-Dec;30(6):857-65.
15. de Brito Brandão M, Mancini MC, Vaz DV, Pereira de Melo AP, Fonseca ST. Adapted version of constraint-induced movement therapy promotes functioning in children with cerebral palsy: a randomized controlled trial. *Clin Rehabil*. 2010 Jul;24(7):639-47.
16. Deyo RA, Weinstein JN. Low back pain. *N Engl J Med*. 2001 Feb 1;344(5):363-70.
17. Dromerick AW, Lang CE, Birkenmeier RL, Wagner JM, Miller JP, Videen TO, et al. Very Early Constraint-Induced Movement during Stroke Rehabilitation (VECTORS): A single-center RCT. *Neurology*. 2009 Jul 21;73(3):195-201. Epub 2009 May 20.

18. Dromerick AW, Edwards DF, Hahn M. Does the application of constraint-induced movement therapy during acute rehabilitation reduce arm impairment after ischemic stroke? *Stroke*. 2000 Dec;31(12):2984-8.
19. Duncan PW, Zorowitz R, Bates B, Choi JY, Glasberg JJ, Graham GD, et al. Management of Adult Stroke Rehabilitation Care: a clinical practice guideline. *Stroke*. 2005 Sep;36(9):e100-43.
20. Eliasson AC, Krumlinde-sundholm L, Shaw K, Wang C. Effects of constraint-induced movement therapy in young children with hemiplegic cerebral palsy: an adapted model. *Dev Med Child Neurol*. 2005 Apr;47(4):266-75.
21. Fischbacher C. Outpatient physiotherapy services for low back pain. In Foxcroft DR, Muthu V (Eds) *STEER: Succinct and Timely Evaluated Evidence Reviews 2002*; 2(3). Wessex Institute for Health Research & Development, University of Southampton. Accessed July 9, 2010. Available at URL address: [http://www.wihrd.soton.ac.uk/projx/signpost/steers/STEER_2002\(3\).pdf](http://www.wihrd.soton.ac.uk/projx/signpost/steers/STEER_2002(3).pdf)
22. Fishman SM, Ballantyne JC, Rathmell JP editors. *Bonica's management of pain 4th ed*. Lippincott Williams & Wilkins: Philadelphia; 2010.
23. Goldstein AT, Marinoff SC, Haefner HK. Vulvodynia: strategies for treatment. *Clin Obstet Gynecol*. 2005 Dec;48(4):769-85.
24. Grotta JC, Noser EA, Ro T, Boake C, Levin H, Aronowski J, Schallert T. Constraint-induced movement therapy. *Stroke*. 2004 Nov;35(11 Suppl 1):2699-701.
25. Green S, Buchbinder R, Hetrick S. Physiotherapy interventions for shoulder pain. *Cochrane Database Syst Rev*. 2003;(2):CD004258.
26. Haefner HK, Collins ME, Davis GD, Edwards L, Foster DC, Hartmann ED, et al. The vulvodynia guideline. *J Low Genit Tract Dis*. 2005 Jan;9(1):40-51.
27. Handoll HH, Sherrington C. Mobilisation strategies after hip fracture surgery in adults. *Cochrane Database Syst Rev*. 2007 Jan 24;(1):CD001704.
28. Hoare BJ, Imms C, Rawicki HB, Carey L. Modified constraint-induced movement therapy or bimanual occupational therapy following injection of Botulinum toxin-A to improve bimanual performance in young children with hemiplegic cerebral palsy: a randomised controlled trial methods paper. *BMC Neurol*. 2010 Jul 5;10(1):58.
29. Hoare BJ, Wasiak J, Imms C, Carey L. Constraint-induced movement therapy in the treatment of the upper limb in children with hemiplegic cerebral palsy. *Cochrane Database Syst Rev*. 2007 Apr 18;(2):CD004149.
30. Hoving JL, Koes BW, de Vet HC, van der Windt DA, Assendelft WJ, van Mameren H, Deville WL, Pool JJ, Scholten RJ, Bouter LM. Manual therapy, physical therapy, or continued care by a general practitioner for patients with neck pain. A randomized, controlled trial. *Ann Intern Med*. 2002 May 21;136(10):713-22.
31. Huang HH, Feters L, Hale J, McBride A. Bound for success: a systematic review of constraint-induced movement therapy in children with cerebral palsy supports improved arm and hand use. *Phys Ther*. 2009 Nov;89(11):1126-41.
32. Nordin M, Campello M. Physical therapy: exercises and the modalities: when, what, and Why? *Neurol Clin*. 1999 Feb;17(1):75-89.
33. Ottawa Panel. Ottawa Panel evidence-based clinical practice guidelines for therapeutic exercises in the management of rheumatoid arthritis in adults. *Phys Ther*. 2004 Oct;84(10):934-72.

34. Ottawa Panel. Ottawa panel evidence-based clinical practice guidelines for therapeutic exercises and manual therapy in the management of osteoarthritis. *Phys Ther* 2005 Sep;85(9):907-71.
35. Ottawa Panel, Khadilkar A, Phillips K, Jean N, Lamothe C, Milne S, Sarnecka J. Ottawa panel evidence-based clinical practice guidelines for post-stroke rehabilitation. *Top Stroke Rehabil*. 2006 Spring;13(2):1-269.
36. Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for shoulder pain. *Phys Ther*. 2001 Oct;81(10):1719-30.
37. Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for neck pain. *Phys Ther*. 2001 Oct;81(10):1701-17.
38. Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for knee pain. *Phys Ther*. 2001 Oct;81(10):1675-700..
39. Philadelphia Panel. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions for low back pain. *Phys Ther*. 2001 Oct;81(10):1641-74.
40. Philadelphia Panel evidence-based clinical practice guidelines on selected rehabilitation interventions: overview and methodology. *Phys Ther*. 2001 Oct;81(10):1629-40.
41. Pollock A, Baer G, Pomeroy V, Langhorne P. Physiotherapy treatment approaches for the recovery of postural control and lower limb function following stroke. *Cochrane Database Syst Rev*. 2007 Jan 24;(1):CD001920.
42. Reed BD. Vulvodynia: diagnosis and management. *Am Fam Physician*. 2006 Apr 1;73(7):1231-8.
43. Rosomoff HL, Rosomoff RS. Low back pain. Evaluation and management in the primary care setting. *Med Clin North Am*. 1999 May;83(3):643-62.
44. Royal college of Physicians/Intercollegiate Stroke Working Party. National clinical guidelines for stroke 2nd ed. June 2004.
45. Sakzewski L, Ziviani J, Boyd R. Systematic review and meta-analysis of therapeutic management of upper-limb dysfunction in children with congenital hemiplegia. *Pediatrics*. 2009 Jun;123(6):e11111-22.
46. Section of Physical and Rehabilitation Medicine Union Europeenne des Medecins Specialistes (UEMS); European Board of Physical and Rehabilitation Medicine; Academie Europeenne de Medecine de Readaptation; European Society for Physical and Rehabilitation Medicine. White book on physical and rehabilitation medicine in Europe. *Eura Medicophys*. 2006 Dec;42(4):292-332.
47. Sirtori V, Corbetta D, Moja L, Gatti R. Constraint-induced movement therapy for upper extremities in stroke patients. *Cochrane Database Syst Rev*. 2009 Oct 7;(4):CD004433.
48. Stanos SP, McLean J, Rader L. Physical medicine rehabilitation approach to pain. *Med Clin North Am*. 2007 Jan;91(1):57-95.
49. Stein J. Stroke. In: Frontera WR, Silver JK, Russo TD editors. *Frontera: Essentials of Physical Medicine and Rehabilitation*, 2nd ed. Philadelphia: Saunders, an imprint of Elsevier Inc.; 2008.
50. Sung IY, Ryu JS, Pyun SB, Yoo SD, Song WH, Park MJ. Efficacy of forced-use therapy in hemiplegic cerebral palsy. *Arch Phys Med Rehabil*. 2005 Nov;86(11):2195-8.
51. Taub E, Ramey SL, DeLuca S, Echols K. Efficacy of constraint-induced movement therapy for children with cerebral palsy with asymmetric motor impairment. *Pediatrics*. 2004 Feb;113(2):305-12.

52. Taylor NF, Dodd KJ, Shields N, Bruder A. Therapeutic exercise in physiotherapy practice is beneficial: a summary of systematic reviews 2002-2005. *Aust J Physiother.* 2007;53(1):7-16.
53. Thomson LC, Handoll HH, Cunningham A, Shaw PC. Physiotherapist-led programs and interventions for rehabilitation of anterior cruciate ligament, medial collateral ligament and meniscal injuries of the knee in adults. *Cochrane Database Syst Rev.* 2002;(2):CD001354.
54. Torburn L. Basic protocols of rehabilitation for the ankle, knee, hip, and shoulder. *Prim Care.* 1996 Jun;23(2):389-403.
55. van Tulder M, Malmivaara A, Esmail R, Koes B. Exercise therapy for low back pain: a systematic review within the framework of the Cochrane collaboration back review group. *Spine.* 2000 Nov 1;25(21):2784-96.
56. Ventolini G, Barhan SM. Vulvodinia. *Dermatol Online J.* 2008 Jan 15;14(1):2.
57. Wolf SL, Winstein CJ, Miller JP, Taub E, Uswatte G, Morris D, et al; EXCITE Investigators. Effect of constraint-induced movement therapy on upper extremity function 3 to 9 months after stroke: the EXCITE randomized clinical trial. *JAMA.* 2006 Nov 1;296(17):2095-104.
58. Wolf SL. Revisiting constraint-induced movement therapy: are we too smitten with the mitten? Is all nonuse "learned"? and other quandaries. *Phys Ther.* 2007 Sep;87(9):1212-23.

Policy History

Pre-Merger Organizations	Last Review Date	Policy Number	Title
CIGNA HealthCare	12/15/2008	0096	Physical Therapy

"CIGNA", "CIGNA HealthCare" and the "Tree of Life" logo are registered service marks of CIGNA Intellectual Property, Inc., licensed for use by CIGNA Corporation and its operating subsidiaries. All products and services are provided by such operating subsidiaries and not by CIGNA Corporation. Such operating subsidiaries include Connecticut General Life Insurance Company, CIGNA Health and Life Insurance Company, CIGNA Behavioral Health, Inc., CIGNA Health Management, Inc., and HMO or service company subsidiaries of CIGNA Health Corporation and CIGNA Dental Health, Inc. In Arizona, HMO plans are offered by CIGNA HealthCare of Arizona, Inc. In California, HMO plans are offered by CIGNA HealthCare of California, Inc. In Connecticut, HMO plans are offered by CIGNA HealthCare of Connecticut, Inc. In North Carolina, HMO plans are offered by CIGNA HealthCare of North Carolina, Inc. In Virginia, HMO plans are offered by CIGNA HealthCare Mid-Atlantic, Inc. All other medical plans in these states are insured or administered by Connecticut General Life Insurance Company or CIGNA Health and Life Insurance Company.