Cigna Medical Coverage Policy

Effective Date: 12/15/2016
Next Review Date: 12/15/2017
Coverage Policy Number: 0096

Table of Contents
Coverage Policy: 1
General Background: 3
Coding/Billing Information: 15
References: 18

Related Coverage Resources
- Acupuncture
- Biofeedback
- Cardiac Rehabilitation (Phase II Outpatient)
- Chiropractic Care
- Complementary and Alternative Medicine
- Complex Lymphedema Therapy (Complete Decongestive Therapy)
- Electrical Stimulation Therapy and Devices
- Gait Analysis
- Inpatient Acute Rehabilitation
- Mechanical Devices for the Treatment of Back Pain
- Occupational Therapy
- Outpatient Acute Rehabilitation
- Plantar Fasciitis Treatments
- Strapping and Taping

INSTRUCTIONS FOR USE
The following Coverage Policy applies to health benefit plans administered by Cigna companies. Coverage Policies are intended to provide guidance in interpreting certain standard Cigna benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, 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 supersedes 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 ©2016 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.

Massage therapy is specifically excluded under some benefit plans. If covered, massage therapy is generally subject to the terms, conditions and limitations of the Short-Term Rehabilitation Therapy or Chiropractic Care Services benefits as described in the applicable plan’s schedule of copayments. Many benefit plans include a maximum allowable benefit for duration of treatment or number of visits. Please
refer to the applicable benefit plan document to determine benefit availability and the terms and conditions of coverage.

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 physical therapy for the treatment of ANY of the following conditions because it is considered experimental, investigational or unproven:

- constipation
- dyspareunia
- vaginismus
- vulvodynia/vulvar vestibulitis
- sexual dysfunction unrelated to musculoskeletal or orthopedic condition
- scoliosis (e.g., Schroth Method of therapy for scoliosis)

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
- when a home exercise program can be utilized to continue therapy
Cigna does not cover the following treatments because they are considered experimental, investigational or unproven:

- constraint-induced movement therapy
- dry hydrotherapy/aquamassage/hydromassage
- equestrian therapy (e.g., hippotherapy)
- elastic therapeutic tape/taping (e.g., Kinesio™ tape, KT TAPE/KT TAPE PRO™, Spidertech™ tape)
- Pilates
- graded motor imagery
- low-level laser therapy (LLLT)
- vertebral axial decompression therapy and devices (e.g., VAX-D, DRX, DRX2000, DRX3000, DRX5000, DRX9000, DRS, Dynapro™ DX2, Accu-SPINA™ System, IDD Therapy® [Intervertebral Differential Dynamics Therapy], Tru Tac 401, Lordex Power Traction device, Spinerx LDM)

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:

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

**Massage Therapy**

If massage therapy is not specifically excluded from coverage in the benefit plan, the following condition of coverage applies.

Cigna covers massage therapy when provided as one component of a medically necessary and covered comprehensive physical therapy or chiropractic treatment plan.

Cigna does not cover massage therapy when it is provided in the absence of other covered physical therapy, occupational therapy or chiropractic modalities because it is considered not medically necessary.

**Note:** Massage therapy may be provided by several types of providers. To qualify for coverage, the provider must meet the definition of provider contained in the benefit plan. Please refer to the applicable plan language to determine benefit coverage for the rendering provider.

**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.

Physical therapy may be provided as a conservative treatment for urinary incontinence. It is considered an effective treatment for this condition and a standard of care. The therapy may include pelvic floor muscle training which targets strengthening the pelvic floor muscles.

**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, 2012) 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, 2012) 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.

Aquatic physical therapy is therapeutic exercise that is provided in a water environment including a whirlpool, hubbard tank, or pool. The therapy may be reasonable and necessary for the loss or restriction of joint motion, strength, mobility, balance or function due to pain, injury or illness by utilizing the buoyancy and resistance
properties of water. Aquatic therapy is often used to progress to land-based therapy and to increase function. Exercises that are performed in the water to promote overall fitness, flexibility, improved endurance, aerobic conditioning, weight reduction, or for maintenance purposes are not considered medically necessary.

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 planar 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
- 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 cardipulmonary; 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. (2014) reported on a review of 96 randomized controlled trials studies to determine whether physical rehabilitation approaches are effective in recovery of function and mobility in people with stroke, and to assess if any one physical rehabilitation approach is more effective than any other approach. The authors concluded that physical rehabilitation, comprised of a selection of components from different approaches, is effective for recovery of function and mobility after stroke. The evidence related to dose of physical therapy is limited by substantial heterogeneity and does not support robust conclusions. The authors note that, "No one approach to physical rehabilitation is any more (or less) effective in promoting recovery of function and mobility after stroke. Therefore, evidence indicates that physical rehabilitation should not be limited to compartmentalized, named approaches, but rather should comprise clearly defined, well-described, evidenced-based physical treatments, regardless of historical or philosophical origin."

Pollock et al. (2007) conducted a Cochrane review of 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.

An update to a Cochrane review that examined the effects of pelvic floor muscle training (PFMT) for women with urinary incontinence was published (Dumoulin, et al., 2014). PFMT is the most commonly used physical therapy treatment for women with stress urinary incontinence (SUI), and may also be recommended for mixed and less commonly for urge urinary incontinence. The objective of PFMT is usually to improve the timing of contraction, strength and stiffness of pelvic floor muscle. The review included 21 trials involving 1,281 women (665 PFMT, 616 controls) that met inclusion criteria; 18 trials (1,051 women) contributed data to the forest plots. The trials were generally small to moderate sized, and many were at moderate risk of bias, based on the trial reports. Women with SUI who were in the PFMT groups were eight times more likely than the controls to report that they were cured. PFMT groups were also more likely to report cure, or more cure and improvement than the women in the control groups, although the effect size was reduced. Women with either SUI or any type of urinary incontinence were also more satisfied with the active treatment, while women in the control groups were more likely to seek further treatment. Women treated with PFMT leaked urine less often, lost smaller amounts on the short office-based pad test, and emptied their bladders less often during the day. The authors concluded that the review provides support for the widespread recommendation that PFMT be included in first-line conservative management program for women with stress and any type of urinary incontinence.

The Agency for Healthcare Research and Quality (AHRQ) conducted a comparativeness effectiveness review for non-surgical treatments for urinary incontinence in adult women (AHRQ, 2012/2013). Nonpharmacological
treatments that were evaluated included pelvic floor muscle treatment (PFMT), a form of physical therapy that is frequently used for treatment of urinary incontinence. The findings included:

- PFMT increased continence rates and improved urinary incontinence more often than usual care.
- PFMT combined with bladder training increased continence rates and improved mixed urinary incontinence.
- PFMT with biofeedback improved urinary incontinence.

**Professional Societies/Organizations**

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.

The APTA published guideline on for low back pain (Delitto, et al., 2012). The guidelines include several recommendations for the use of physical therapy for this condition:

- Clinicians should consider utilizing trunk coordination, strengthening, and endurance exercises to reduce low back pain and disability in patients with subacute and chronic low back pain with movement coordination impairments and post–lumbar microdiscectomy.
- Clinicians should consider utilizing repeated movements, exercises, or procedures to promote centralization to reduce symptoms in patients with acute low back pain with related (referred) lower extremity pain. Clinicians should consider using repeated exercises in a specific direction determined by treatment response to improve mobility and reduce symptoms in patients with acute, subacute, or chronic low back pain with mobility deficits.
- Clinicians can consider flexion exercises, combined with other interventions such as manual therapy, strengthening exercises, nerve mobilization procedures, and progressive walking, for reducing pain and disability in older patients with chronic low back pain with radiating pain.

The American College of Obstetricians and Gynecologists (ACOG) practice bulletin for urinary incontinence in women includes the following recommendations (based on good and consistent scientific evidence [Level A]): Pelvic floor training appears to be an effective treatment for adult women with stress and mixed incontinence and can be recommended as a noninvasive treatment for many women (ACOG, 2005/2009).

**Massage Therapy**
Massage therapy, or therapeutic massage is the manipulation of soft tissue using the hands or a mechanical device. Variables related to this procedure that may impact the effectiveness of the treatment include the types of maneuvers used, the therapist rendering the care, the patient position, amount of pressure exerted and the frequency and duration of the treatments. Some of the movement techniques of massage therapy include: effleurage (i.e., stroking or gliding), petrissage (i.e., kneading or compression), tapotement (i.e., striking or percussion), and vibration (i.e., shaking).

Massage therapy is one of the passive modalities used by physical therapists, occupational therapists, or chiropractors, usually in combination with other modalities. Massage that is applied to acupuncture points is known as acupressure. The intended goal of massage therapy includes the relief of musculoskeletal pain and improving function. Massage is generally noted to be a safe therapeutic modality, with few risks or adverse effects. Contraindication include applying massage over an area with acute inflammation, skin infection, non-consolidated fracture, burn area, deep vein thrombosis or over sites of active cancer tumor (Furlan, et al., 2015).

Few clinical trials have been undertaken to assess the effect of this modality alone in the treatment of specific medical conditions. Rehabilitation programs frequently combine massage therapy with one or more other treatment interventions. While there is scant literature regarding the efficacy of this treatment when used as the sole modality, massage therapy has been a part of physical therapy or chiropractic treatment plans for the management of musculoskeletal pain.

**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:** Pulman et al. (2013) conducted a study to quantitatively assess the efficacy of different upper limb interventions on health-related quality of life (QOL) in stroke patients. Two botulinum type A injection (BTX-A) studies and four randomized controlled studies of CIMT were separately combined in a meta-analysis using a fixed effects model. QOL mean scores were extracted and transformed into weighted mean differences. The results indicated that combined, the BTX-A studies showed no significant improvements in overall health-related QOL. Also, a meta-analysis of four CIMT studies revealed non-significant findings for the domains of activities of daily living, communication, and hand function. A separate meta-analysis of three CIMT studies showed a significant increase in strength scores (P=.007); however, sensitivity analysis for this domain due to significant heterogeneity led to a new P value of .078, which indicated a non-significant increase in strength. Further, results for memory, mobility, mood, participation, and overall recovery were found to be non-significant. The authors concluded that the study indicates that these type of upper limb interventions are not effective in improving health-related QOL in the post-stroke population.

McIntyre et al. (2012) conducted a systematic review and meta-analysis of the available evidence of the effectiveness of constraint-induced movement therapy (CIMT) in the hemiparetic upper extremity (UE) among individuals who were more than 6 months post stroke. The study included 16 randomized controlled trials with 572 patients. Treatment time ranged among studies from a minimum of 10 days to a maximum of 10 weeks. The treatment group received CIMT and the control group received a form of traditional rehabilitation and
functional improvement was assessed both pre and post-treatment. The meta-analysis revealed a significant treatment effect on the amount of use and quality of movements subscales of the Motor Activity Log (P<.001, for both), Fugl-Meyer Assessment (P=.014), and Action Research Arm Test (P=.001; however, no significant treatment effect was demonstrated by the Wolf Motor Function Test (P=.120) or Functional Independence Measure (FIM) (P=.070). Limitations of review included heterogeneity of the treatments provided. It is not clear which form of treatment, intensive or modified CIMT would lead to improvement. In addition long term benefits of the therapy were not assessed.

Corbetta, et al. (2010) reported on a systematic review and meta-analysis of constraint-induced movement therapy in stroke patients. This review was intended to be an update to a previous Cochrane review. Four new studies were included for a total of total of 18 studies and 674 patients. The majority of studies were underpowered and imprecise, leading to small-study bias. The meta-analysis on the primary outcome (disability) indicated no evidence of a benefit of CIMT. CIMT had a modest effect on secondary outcome of upper limb function. The authors note that future randomized controlled trials need to have accurate characteristics in terms of methodological quality, larger samples, reliable and relevant measure and report of adverse events.

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 (restriction 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.

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

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.”.

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)

**Dry hydrotherapy**

Dry hydrotherapy, also referred to as aquamassage, water massage or hydromassage, is a treatment that incorporates water with the intent of providing therapeutic massage. The water is contained in a bed or chair, and the patient is separated from the water by a waterproof barrier, such as a vinyl cover. Pumps or water jets circulate, pulsate and spray the water within the contained area. Streams of pulsating water are sent along the patient’s body as the individual sits or lies on the device. The user remains fully clothed and dry during the treatment. The treatment is generally provided in chiropractor or physical therapy offices.

There are several dry hydrotherapy devices available that provide this treatment, including the following:

- Aqua Massage® (AMI Inc., Mystic, CT)
- AquaMED® (JTL Enterprises, Inc., Clearwater, FL)
- H₂OMassage System™ (H₂OMassage Systems, Winnipeg, MB, Canada)
- Hydrotherapy Tables (Sidmar Manufacturing, Inc., Princeton, MN)

It is proposed that the advantages of this treatment include the fact that clients can experience benefits of massage without the therapist and can remain fully clothed. In addition, manufacturing websites assert that the tables provide effects similar to those of whirlpools and immersion water therapy and that the pressure of the water against the patient’s body provides the massage. Some proponents of dry hydrotherapy maintain that it can be used in lieu of certain conventional physical medicine therapeutic modalities and procedures, such as heat packs, wet hydrotherapy, massage, and soft tissue manipulation. In addition to these recommendations that it can be used to replace multiple modalities, it has been proposed that this device be used over and above the normal treatment plan (e.g., for relaxation). The assertions that have been made by manufacturers of this device at their websites have not yet been proven.

No published studies or information regarding dry hydrotherapy devices or dry hydrotherapy treatment were identified in the peer-reviewed scientific literature. There are no published studies found comparing this treatment to therapeutic massage or other physical medicine treatments or modalities. In the absence of peer-reviewed literature demonstrating the effectiveness of dry hydrotherapy and in the absence of comparison to currently accepted treatment modalities, no definitive conclusions can be drawn regarding the clinical benefits of this treatment.

**Equestrian therapy (e.g., hippotherapy)**

Equestrian therapy, also known as horseback riding or hippotherapy, is proposed to offer a person with a disability a means of physical activity that aids in improving balance, posture, coordination, the development of a positive attitude and a sense of accomplishment. It is proposed for treatment of several conditions including autism spectrum disorders and cerebral palsy. There is insufficient published evidence regarding the effects of this therapy on individuals with impaired physical function resulting from illness, injury, congenital defect or surgery.

Bronson et al. (2010) conducted a systematic review of the literature to evaluate the ability of hippotherapy to improve balance in multiple sclerosis patients. Three case series with less than 11 patients each met inclusion criteria. The patients engaged in a mean 7.75 hours of therapy over a mean 11.2 weeks.

Lee et al. (2014) reported on a that examined the effects of hippotherapy on gait and balance ability in patients with stroke. The study included 30 stroke patients that were randomly divided into a hippotherapy group and a treadmill group with exercises conducted for eight weeks. In the comparison between the hippotherapy group and treadmill group, there was no significant difference in Berg Balance Scale score, but a significant difference was found in gait velocity and step length asymmetry ratio. The limitations of the study included that the both the treadmill training and hippotherapy training were conducted for only 8 weeks and that further study is needed. In addition, additional assessment tools for gait or balance should be included.

O’Haire et al. (2014) reported on a systematic review of 14 studies of animal-assisted intervention (AAI), including hippotherapy, as a treatment practice for autism spectrum disorder (ASD). The authors note that most
studies were limited by many methodological weaknesses. This review demonstrates that there is preliminary “proof of concept” of AAI for ASD and highlights the need for further, more rigorous research.

**Pilates**

Pilates is an exercise system that focuses on improving body flexibility, strength, and awareness without adding bulk. It involves a series of controlled movements performed on exercise equipment and/or on the floor and resistance training that is proposed to cause spinal cord alignment and build muscle strength.

In a systematic review and meta-analysis of five studies (n=139), Pereira et al. (2012) reported no improvement in functionality or pain with Pilates compared to lumbar stabilization exercises. Lim et al. (2011) conducted a systematic review and meta-analysis of seven randomized controlled trials and analysis of the pooled data showed significant pain relief (p=0.04) with Pilates. However, when Pilates was compared to standard exercises there were no significant differences in pain relief or in disability scores. Studies were limited by small patient populations, short-term follow-ups, and possible publication bias, heterogeneity of Pilates and conventional interventions, and poor methodological quality.

**Vertebral Axial Decompression Therapy and Devices**

Vertebral axial decompression therapy, also referred to as mechanized spinal distraction therapy, has been proposed as a nonsurgical treatment for back pain. Vertebral axial decompression is based on a theory that decreased load bearing (i.e., unloading) at the affected site will decrease pain and promote healing. These devices utilize computer-controlled mechanical tables to apply distractive tension, or stretching, along the spinal axis. Vertebral axial decompression devices are typically used in a clinic or rehabilitation setting and include the VAX-D (VAX-D Medical Technologies LLC, Oldsmar, FL), DRS system (Professional Distribution Systems, Inc., Boca Raton, FL), DRX2000 (Axiom Worldwide, Inc., Tampa, FL) and other FDA-approved devices.

The published scientific data is insufficient to validate improved clinical outcomes (e.g., reduction of back pain, improved functioning) associated with vertebral axial decompression therapy. While several technology assessments have been published, effectiveness of the various devices have not been proven when compared to standard equipment or testing.

For further information regarding vertebral decompression devices, please refer to Mechanical Devices for the Treatment of Back Pain Coverage Policy.

**Graded Motor Imagery**

Graded motor imagery (GMI) involves training patients to improve right/left discrimination and imagine pain free movements of affected and normal limbs followed by practicing pain free movements with the aid of a mirror box (Fishman, et al., 2010).

GMI includes three stages: stage one includes left/right judgments which include viewing an image/photograph of a limb and judging whether that image depicts a left or right limb. This is purported to activate the premotor cortex without activating primary motor areas. The second stage, motor imagery, requires imagined movement of the area purported to activate motor cortical areas similar to those activated in the actual execution of the movement. The final stage, mirror therapy, patients place their affected limb inside a mirror box and watch movements of their nonaffected limb in the mirror, giving the illusion of a moving, but pain-free affected limb (Boweringet, al., 2013).

O’Connell et al. (2013) reported on a Cochrane review of the effectiveness of any therapeutic intervention used to reduce pain, disability or both in adults with complex regional pain syndrome (CRPS). In general it was noted that the trials were typically small and the quality variable. The review included three randomized, controlled trials for GMI and found that that graded motor imagery may be effective for pain and function when compared with usual care. The studies included small sample size and the authors noted the evidence in the review should be interpreted with caution.

Bowering et al. (2013) reported on a systematic review of all evidence concerning the effects of GMI and its components on chronic pain. The review included six randomized, controlled trials and the methodological quality was noted to be generally low. No effect was seen for left/right judgment training, and conflicting results were found for motor imagery used as stand-alone techniques; however, positive effects were observed for both mirror therapy and GMI. A meta-analysis of GMI versus usual physiotherapy care favored GMI in reducing pain.
(2 studies, n = 63; effect size, 1.06 [95% confidence interval]; heterogeneity, I² = 15%). The authors note that the results suggest that GMI and mirror therapy alone may be effective, although the conclusion is based on limited evidence. The review concludes that further rigorous studies are needed to investigate the effects of GMI and its components on a wider chronic pain population.

**Taping/Elastic therapeutic tape (e.g., Kinesio™ tape, Spidertech™ tape)**

Elastic therapeutic tape, also known as kinesiology tape, differs from traditional white athletic tape in the sense that it is elastic and can be stretched to 140% of its original length before being applied to the skin. It is theorized that it provides a constant pulling (shear) force to the skin over which it is applied unlike traditional white athletic tape. The fabric of this specialized tape is air permeable and water resistant and can be worn for repetitive days (Halseth, et al., 2004).

Elastic tape is available in various lengths or pre-cut. There are several types of elastic therapeutic tape available including:

- Kinesio™ tape (Kinesio Taping, LLC. Albuquerque, NM)
- SpiderTech™ tape (SpiderTech Inc., Toronto, Ontario)
- KT TAPE/KT TAPE PRO™ (LUMOS INC., Lindon, UT)

McConnell taping is used to facilitate a strengthening intervention, it is not used to immobilize a joint. It is used as part of physical therapy program. It is a rigid, highly adhesive tape. It is not considered as a separate service from the physical therapy service.

There is insufficient evidence in the peer-reviewed literature regarding the efficacy of therapeutic elastic tape for treatment of any indication including musculoskeletal conditions.

For further information regarding strapping and taping, please refer to Strapping and Taping Coverage Policy.

**Physical Therapy for Non-Covered Conditions**

**Physical Therapy for Scoliosis:** Scoliosis, lateral curvature of the spine, is a structural alteration that occurs in a variety of conditions. Progression of the curvature during periods of rapid growth can result in significant deformity, which may be accompanied by cardiopulmonary compromise (Scherl, 2016). Options for treatment of scoliosis include observation, bracing, and surgery. There is a lack of high-quality evidence from randomized trials that physical therapy (scoliosis-specific exercises), chiropractic treatment, electrical stimulation, or biofeedback is effective (Scherl, 2016; National Institutes of Health [NIH]/National Institute of Arthritis and Musculoskeletal and Skin Disease [NIAMS], 2015; American Academy of Orthopedic Surgeons [AAOS], 2015a; 2015b; Mehlman, 2015; Romana, et al., 2012).

The Schroth Method is a non-surgical principle of scoliosis treatment using scoliosis-specific exercise based on curve-pattern. Postural education (sagittal correction, ADL correction and experiential learning) are based on the original approaches of the 3-dimensional treatment according to Katharina Schroth, namely specific postural correction, correction of breathing patterns and correction of postural perception.

**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 or 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 (American College of Obstetricians and Gynecologists [ACOG], 2006).

Female sexual dysfunction conditions can be classified as sexual desire disorders, sexual arousal disorder, orgasmic disorder, or sexual pain disorders. Hypoactive sexual desire disorder and sexual aversion disorder comprise the sexual desire disorders. According to the DSM-IV-TR, hypoactive sexual desire disorder is defined as a persistent or recurrent deficiency or absence of sexual desire or receptivity to sexual activity that causes marked distress or interpersonal difficulty. Sexual aversion disorder is defined as a persistent or recurrent aversive response to genital contact with a sexual partner that causes distress or interpersonal difficulty. Female sexual arousal disorder refers to an inability to complete sexual activity with adequate lubrication that causes
marked distress or interpersonal difficulty. Female orgasmic disorder is considered a persistent or recurrent delay in or absence of orgasm after a normal excitement phase, which causes marked distress or interpersonal difficulty. Sexual pain disorders include vaginismus and dyspareunia. Vaginismus is a rare condition that is secondary to involuntary spasm of vaginal introital and levator ani muscles (Lentz, et al., 2012; ACOG, 2011). According to the DSM-IV-TR, dyspareunia is defined in as recurrent or persistent genital pain associated with sexual intercourse that is not caused exclusively by lack of lubrication or by vaginismus and causes marked distress or interpersonal difficulty (ACOG, 2011).

Physical Therapy for Other Not Covered Conditions: Erectile dysfunction (ED) and premature ejaculation (PE) are considered the two most prevalent male sexual dysfunctions (Hatzimouratidis, et al., 2014).

Constipation is a symptom-based disorder of unsatisfactory defecation that may be associated with infrequent stools, difficult stool passage, or both. The initial management of symptomatic constipation generally includes dietary modification, including a high-fiber diet and fluid supplementation (Ternent, et al., 2007).

There is insufficient evidence in the peer-reviewed literature regarding the efficacy of physical therapy for treatment of these conditions.

Professional Societies/Organizations—Non-Covered Conditions:
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. The report notes 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 (ACOG, 2006/2015).

ACOG (2011) published a clinical management guideline on female sexual dysfunction. Conditions included in this guideline include: sexual desire disorders (e.g., hypoactive sexual desire disorder and sexual aversion disorder), female sexual arousal disorder, female orgasmic disorder, and sexual pain disorders (e.g., dyspareunia, vaginismus). Physical therapy is not included in the recommendations in this guideline. The guideline includes the following for management of these conditions:
- conclusion based on good and consistent scientific evidence (Level A):
  - Transdermal testosterone has been shown to be effective for the short-term treatment of hypoactive sexual desire disorder, with little evidence to support long-term use (longer than 6 months).
- conclusions are based on limited or inconsistent scientific evidence (Level B) include:
  - Prospective studies constructed to address the effect of hysterectomy on postoperative sexual function have failed to show a difference in total versus subtotal hysterectomy.
  - Vaginal estrogen for the treatment of postmenopausal atrophy results in improved dyspareunia, less vaginal dryness, improved vaginal mucosal maturation indices, and reduced vaginal pH.
  - The main risks associated with androgen replacement therapy in women are hirsutism, acne, virilization, and CV complications. In addition, a possible association with breast cancer has been reported.

The American Society of Colon and Rectal Surgeons (ASCRP) published practice parameters for the evaluation and management of constipation (Tenert, et al., 2007). These guidelines do not include physical therapy as a recommended treatment for constipation. Guidelines were published by the European Society for Pediatric Gastroenterology, Hepatology, and Nutrition and North American Society for Pediatric Gastroenterology for the evaluation and treatment of functional constipation in infants and children (Tabbers, 2014). Physical Therapy is not included in these published guidelines from specialty professional organizations.

Use Outside of the US
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)

Royal college of Physicians/Intercollegiate Stroke Working Party (United Kingdom) published guidelines for management of stroke—National Guidelines for Stroke (2004/updated 2016). The guidelines include the recommendation that people with stroke who have 20 degrees of active wrist extension and 10 degrees of active finger extension in the affected hand should be considered for constraint-induced movement therapy.

The National Institute for Health and Clinical Excellence (NICE) (UK) published clinical guideline for management of urinary incontinence in women (2015). The guideline includes a recommendation based on good evidence that a trial of supervised pelvic floor muscle training of at least three months’ duration should be offered as first-line treatment to women with stress or mixed urinary incontinence.

The European Urological Association published guidelines on male sexual dysfunction, including erectile dysfunction and premature ejaculation. Physical therapy is not included in the guidelines as a treatment for these conditions (Hatzimouratidis, et al., 2014).

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.

To date, no well-designed, randomized, controlled clinical trials have been identified comparing the use of dry hydrotherapy to well-established physical medicine modalities and procedures. The safety and effectiveness of this treatment cannot be determined. At this time, the role of dry hydrotherapy in the treatment of musculoskeletal or other conditions has not been established.

There is insufficient evidence in the published, peer-reviewed scientific literature to conclude that physical therapy is effective for treatment of scoliosis, constipation, dyspareunia, vaginismus, vulvodynia, vulvar vestibulitis and sexual function not related to musculoskeletal or orthopedic condition.

Elastic therapeutic tape, also known as kinesiology tape, also referred to as kinesio taping, is utilized as part of a rehabilitation program, and is not used for acute injury or to immobilize a body part. There is insufficient evidence in the peer-reviewed literature regarding the efficacy of therapeutic elastic tape for treatment of any indication including musculoskeletal conditions. When used as part of a rehabilitation program, strapping and taping is considered part of the therapeutic modality.

Coding/Billing Information

Note: 1) This list of codes may not be all-inclusive.
2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible
Covered when medically necessary:

<table>
<thead>
<tr>
<th>CPT** Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>97001</td>
<td>Physical therapy evaluation (Code deleted 12/31/2016)</td>
</tr>
<tr>
<td>97002</td>
<td>Physical therapy re-evaluation (Code deleted 12/31/2016)</td>
</tr>
<tr>
<td>97010</td>
<td>Application of a modality to 1 or more areas; hot or cold packs</td>
</tr>
<tr>
<td>97012</td>
<td>Application of a modality to 1 or more areas; traction, mechanical</td>
</tr>
<tr>
<td>97014</td>
<td>Application of a modality to 1 or more areas; electrical stimulation (unattended)</td>
</tr>
<tr>
<td>97016</td>
<td>Application of a modality to 1 or more areas; vasopneumatic devices</td>
</tr>
<tr>
<td>97018</td>
<td>Application of a modality to 1 or more areas; paraffin bath</td>
</tr>
<tr>
<td>97022</td>
<td>Application of a modality to 1 or more areas; whirlpool</td>
</tr>
<tr>
<td>97024</td>
<td>Application of a modality to 1 or more areas; diathermy (eg, microwave)</td>
</tr>
<tr>
<td>97026</td>
<td>Application of a modality to 1 or more areas; infrared</td>
</tr>
<tr>
<td>97028</td>
<td>Application of a modality to 1 or more areas; ultraviolet</td>
</tr>
<tr>
<td>97032</td>
<td>Application of a modality to 1 or more areas; electrical stimulation (manual), each 15 minutes</td>
</tr>
<tr>
<td>97033</td>
<td>Application of a modality to 1 or more areas; iontophoresis, each 15 minutes</td>
</tr>
<tr>
<td>97034</td>
<td>Application of a modality to 1 or more areas; contrast baths, each 15 minutes</td>
</tr>
<tr>
<td>97035</td>
<td>Application of a modality to 1 or more areas; ultrasound, each 15 minutes</td>
</tr>
<tr>
<td>97036</td>
<td>Application of a modality to 1 or more areas; Hubbard tank, each 15 minutes</td>
</tr>
<tr>
<td>97110</td>
<td>Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility</td>
</tr>
<tr>
<td>97112</td>
<td>Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities</td>
</tr>
<tr>
<td>97113</td>
<td>Therapeutic procedure, 1 or more areas, each 15 minutes; aquatic therapy with therapeutic exercises</td>
</tr>
<tr>
<td>97116</td>
<td>Therapeutic procedure, 1 or more areas, each 15 minutes; gait training (includes stair climbing)</td>
</tr>
<tr>
<td>97124</td>
<td>Therapeutic procedure, 1 or more areas, each 15 minutes; massage, including effleurage, petrissage and/or tapotement (stroking, compression, percussion)</td>
</tr>
<tr>
<td>97140</td>
<td>Manual therapy techniques (eg, mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes</td>
</tr>
<tr>
<td>97161</td>
<td>Physical therapy evaluation: low complexity, requiring these components: A history with no personal factors and/or comorbidities that impact the plan of care; An examination of body system(s) using standardized tests and measures addressing 1-2 elements from any of the following: body structures and functions, activity limitations, and/or participation restrictions; A clinical presentation with stable and/or uncomplicated characteristics; and Clinical decision making of low complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 20 minutes are spent face-to-face with the patient and/or family. (Code effective 01/01/2017)</td>
</tr>
<tr>
<td>97162</td>
<td>Physical therapy evaluation: moderate complexity, requiring these components: A history of present problem with 1-2 personal factors and/or comorbidities that impact the plan of care; An examination of body systems using standardized tests and measures in addressing a total of 3 or more elements from any of the following: body structures and functions, activity limitations, and/or participation restrictions; An evolving clinical presentation with changing characteristics; and Clinical decision making of moderate complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 30 minutes are spent face-to-face with the patient and/or family. (Code effective 01/01/2017)</td>
</tr>
</tbody>
</table>
| 97163       | Physical therapy evaluation: high complexity, requiring these components: A
<table>
<thead>
<tr>
<th>HCPCS Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G0151</td>
<td>Services performed by a qualified physical therapist in the home health or hospice setting, each 15 minutes</td>
</tr>
<tr>
<td>S9131</td>
<td>Physical therapy; in the home, per diem</td>
</tr>
</tbody>
</table>

## Training in Nature/Not Medically Necessary/Not Covered:

<table>
<thead>
<tr>
<th>CPT* Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>97005</td>
<td>Athletic training evaluation (Code deleted 12/31/2016)</td>
</tr>
<tr>
<td>97006</td>
<td>Athletic training re-evaluation (Code deleted 12/31/2016)</td>
</tr>
<tr>
<td>97150</td>
<td>Therapeutic procedure(s), group (2 or more individuals)</td>
</tr>
<tr>
<td>97169</td>
<td>Athletic training evaluation, low complexity, requiring these components: A history and physical activity profile with no comorbidities that affect physical activity; An examination of affected body area and other symptomatic or related systems addressing 1-2 elements from any of the following: body structures, physical activity, and/or participation deficiencies; and Clinical decision making of low complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 15 minutes are spent face-to-face with the patient and/or family (Code effective 01/01/2017)</td>
</tr>
<tr>
<td>97170</td>
<td>Athletic training evaluation, moderate complexity, requiring these components: A medical history and physical activity profile with 1-2 comorbidities that affect physical activity. An examination of affected body area and other symptomatic or related systems addressing a total of 3 or more elements from any of the following: body structures, physical activity, and/or participation deficiencies; and Clinical decision making of moderate complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 30 minutes are spent face-to-face with the patient and/or family. (Code effective 01/01/2017)</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>97171</td>
<td>Athletic training evaluation, high complexity, requiring these components: A medical history and physical activity profile, with 3 or more comorbidities that affect physical activity; A comprehensive examination of body systems using standardized tests and measures addressing a total of 4 or more elements from any of the following: body structures, physical activity, and/or participation deficiencies; Clinical presentation with unstable and unpredictable characteristics; and Clinical decision making of high complexity using standardized patient assessment instrument and/or measurable assessment of functional outcome. Typically, 45 minutes are spent face-to-face with the patient and/or family. (Code effective 01/01/2017)</td>
</tr>
<tr>
<td>97172</td>
<td>Re-evaluation of athletic training established plan of care requiring these components: An assessment of patient’s current functional status when there is a documented change, and A revised plan of care using a standardized patient assessment instrument and/or measurable assessment of functional outcome with an update in management options, goals, and interventions. Typically, 20 minutes are spent face-to-face with the patient and/or family. (Code effective 01/01/2017)</td>
</tr>
<tr>
<td>97537</td>
<td>Community/work reintegration training (eg, shopping, transportation, money management, avocational activities and/or work environment/modification analysis, work task analysis, use of assistive technology device/adaptive equipment), direct one-on-one contact, each 15 minutes</td>
</tr>
<tr>
<td>97545</td>
<td>Work hardening/conditioning; initial 2 hours</td>
</tr>
<tr>
<td>97546</td>
<td>Work hardening/conditioning; each additional hour (List separately in addition to code for primary procedure)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCPCS Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8990</td>
<td>Physical or manipulative therapy performed for maintenance rather than restoration</td>
</tr>
<tr>
<td>S9117</td>
<td>Back school, per visit</td>
</tr>
</tbody>
</table>

Experimental, investigational, unproven and not covered when used to report constraint-induced movement therapy or dry hydrotherapy/aquamassage/hydromassage, equestrian therapy (e.g., hippotherapy), elastic therapeutic tape/taping, Pilates, graded motor imagery, low-level laser therapy or vertebral axial decompression:

<table>
<thead>
<tr>
<th>CPT* Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>97039</td>
<td>Unlisted modality (specify type and time if constant attendance)</td>
</tr>
<tr>
<td>97799</td>
<td>Unlisted physical medicine/rehabilitation service or procedure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCPCS Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S8940</td>
<td>Equestrian/hippotherapy, per session</td>
</tr>
<tr>
<td>S8948</td>
<td>Application of a modality (requiring constant provider attendance) to one or more areas, low-level laser; each 15 minutes</td>
</tr>
<tr>
<td>S9090</td>
<td>Vertebral axial decompression, per session</td>
</tr>
</tbody>
</table>


References


90. 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.

The registered marks "Cigna" and the "Tree of Life" logo are owned by Cigna Intellectual Property, Inc., licensed for use by Cigna Corporation and its operating subsidiaries. All products and services are provided by or through 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.