

1 **Clinical Practice Guideline: Passive Physiotherapy Modalities**

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3 **Date of Implementation: July 16, 2009**

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5 **Product: Specialty**

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8 **Related Policies:**

9 CPG 30: Laser Therapy (LT)

10 CPG 135: Physical Therapy Medical Policy/Guideline

11 CPG 155: Occupational Therapy Medical Policy/Guideline

12 CPG 272: Electric Stimulation for Pain, Swelling and Function

13 CPG 273: Superficial Heat and Cold

14 CPG 274: Deep Heating Modalities (Therapeutic Ultrasound and Diathermy)

15 CPG 275: Mechanical Traction

16 **GUIDELINES**

17 This Clinical Practice Guideline (CPG) provides a brief description of passive
18 physiotherapy modalities that represent a diverse group of therapeutic modalities
19 commonly used in clinical practice including, but not limited to such therapies as electrical
20 stimulation, diathermy, therapeutic ultrasound, superficial heat and cold, and hydrotherapy.
21 A distinguishing feature of these physiotherapy modalities is that they are passive in nature,
22 requiring little or no participation on the part of the patient. They should be used as an
23 adjunct to other treatments in clinical practice and only for a brief period in the initial stages
24 of treatment.

25
26 American Specialty Health – Specialty (ASH) clinical committees have determined that
27 the use of passive physiotherapy modalities, when appropriate, is professionally recognized
28 and have a favorable benefit:risk profile. However, much of the literature regarding passive
29 physiotherapeutic modality use does not provide sufficient information to establish them
30 as clinically effective or ineffective for the management of most musculoskeletal and
31 related conditions. There is general knowledge that passive physiotherapy modalities have
32 specific physiologic effects such as superficial or deep heat, mechanical stimulation, or
33 electrokinetic effects such as muscle stimulation, and that some produce activation of
34 sensory receptors which may have an effect on pain sensation.

35
36 Further, ASH clinical committees have determined that it is professionally recognized to
37 use passive physiotherapy modalities for the treatment of an acute inflammatory response,
38 pain, and/or muscle tightness or spasm in the acute stage and with documented significant
39 flare-ups, as well as, when appropriate, to facilitate treatment of musculoskeletal and
40 related conditions with manual and active therapeutic procedures. There is some evidence
41 to support the use of specific passive physiotherapy modalities in the treatment of specific
42 conditions; this evidence may infer effectiveness for treatment of similar conditions. See

1 the *Electric Stimulation for Pain, Swelling and Function (CPG 272 - S)*, *Deep Heating*
 2 *Modalities (CPG 274 - S)*; *Superficial Heat and Cold (CPG 273 - S)*; *Mechanical Traction*
 3 *(CPG 275 - S)*; and *Laser Therapy (LT) (CPG 30 - S)* clinical practice guidelines for further
 4 information and literature review.

5
 6 ASH peer review clinical committees recommend the following guidelines for the use of
 7 passive physiotherapy modalities:

- 8 • Generally, passive physiotherapy modalities are used to manage the acute
 9 inflammatory response, pain, and/or muscle tightness or spasm in the early stages
 10 of musculoskeletal and related condition management. The use of passive
 11 physiotherapy modalities in the treatment of sub-acute or chronic conditions
 12 beyond the acute inflammatory response time frame requires documentation of the
 13 anticipated benefit and condition-specific rationale (e.g., Used along with active
 14 treatment particularly as an effective alternative for pharmacological management
 15 of chronic pain) in order to be considered medically necessary.
- 16 • The selection of a passive physiotherapy modality should be based on an
 17 understanding of the known physiologic effects of the modality, contraindications,
 18 the stage of injury and/or tissue healing, anatomical location to be treated, patient-
 19 specific complicating factors (e.g., inability for the patient to respond to modality
 20 effects due to cognitive level and ability to understand (e.g., young age, dementia),
 21 cautious use of heat in patients with sensory deprivation), and the likelihood of the
 22 therapy to enhance recovery or facilitate treatment with manual and active
 23 therapeutic procedures.
- 24 • Modalities chosen to treat the patient’s symptoms/conditions should be selected
 25 based on the most effective and efficient means of achieving the patient’s functional
 26 goals. Seldom should a patient require more than one (1) or two (2) modalities to
 27 the same body part during the therapy session. Use of more than two (2) modalities
 28 on each visit date is unusual and should be justified in the documentation.
- 29 • Use of multiple passive physiotherapy modalities with similar physiologic effects
 30 to the same region should be considered redundant and not medically necessary.
 - 31 ○ Certain physical medicine modalities are considered redundant in nature, and it
 32 would be inappropriate to perform or bill for these services to the same region
 33 during the same session. Exceptions are rare and usually involve
 34 musculoskeletal pathology/injuries in which both superficial and deep
 35 structures are impaired. Documentation must support the use of multiple
 36 modalities as contributing to the patient’s progress and restoration of function.
 37 For example, it would not be medically necessary to perform both thermal
 38 ultrasound and thermal diathermy on the same area, in the same visit, as both
 39 are considered deep heat modalities.
- 40 • The use of modalities as stand-alone treatments is rarely therapeutic, and thus not
 41 required or indicated as the sole treatment approach to a patient’s condition. The
 42 use of exercise and activities has proven to be an essential part of a therapeutic

1 program. Therefore, a treatment plan should not consist solely of modalities, but
 2 should also include therapeutic procedures. (There are exceptions, including wound
 3 care or when patient care is focused on modalities because the acute patient is
 4 unable to endure therapeutic procedures.) Use of only passive modalities that
 5 exceeds 4 visits should be very well supported in the documentation.

- 6 ○ Prolonged reliance on passive physiotherapy modalities is not supported by the
 7 clinical literature. The risk of treatment dependency should be considered.
 8 Transition from passive physiotherapy modalities to active treatment
 9 procedures should be timely and evidenced in the medical record, including
 10 instructions on self/home care. And in most cases, active treatment should be
 11 initiated in addition to modality use at a level that is appropriate for the patient.
- 12 ● When the symptoms that required the use of certain modalities begin to subside
 13 (e.g., reduction of pain, inflammation, and muscle tightness) and function
 14 improves, the medical record should reflect the discontinuation of those modalities,
 15 so as to determine the patient’s ability to self-manage any residual symptoms. As
 16 the patient improves, the medical record should reflect a progression of the other
 17 procedures of the treatment program (therapeutic exercise, therapeutic activities,
 18 etc.). In all cases, the patient and/or caregiver should be taught aspects of self-
 19 management of his/her condition from the start of therapy.

21 DESCRIPTION/BACKGROUND

22 Current literature assessing the clinical effectiveness of passive therapeutic modalities as
 23 isolated treatment for acute, sub-acute, or chronic musculoskeletal and related conditions
 24 is often of poor methodological quality and is insufficiently homogenous to allow for
 25 pooling of results. There is a general lack of agreement in the literature regarding the
 26 effectiveness of passive modalities for musculoskeletal pain. Ongoing limitations of the
 27 current body of evidence include variability in devices, dosage, and treatment parameters.
 28 A wide variety of musculoskeletal conditions have been studied, and studies often
 29 demonstrate poor study design or methodologic flaws. There appears to be a trend toward
 30 improved study design with more double blind, randomized controlled trials using
 31 standardized outcome measures. Most of the systematic reviews in the literature conclude
 32 with a call for larger, multi-center randomized controlled trials. Therefore, clearly effective
 33 treatments are not supported at this time for the treatment of acute, sub-acute, or chronic
 34 symptoms by any isolated passive modality.

35
 36 Another limitation of the current body of published evidence is the focus of the
 37 investigation. Most studies are attempting to determine if the modality, by itself or in
 38 combination with other therapeutic interventions, changes the short or long-term outcome
 39 of the condition. This is an important question to study. However, many of the passive
 40 modalities are utilized by healthcare practitioners as a means of transient management of
 41 pain and other signs of acute inflammation in order to facilitate other interventions of
 42 demonstrated effectiveness such as manipulation, mobilization, exercise, and a return to

1 normal activity. It is possible to find that a modality does not change the eventual outcome
2 but affords a window of opportunity for a practitioner or patient to perform activities that
3 would otherwise be limited by pain, spasm, or fear-avoidance behavior.

4
5 Although there are precautions and contraindications associated with any modality and
6 some harms were reported, the literature precludes reliable and valid estimates of the risks
7 of major and minor harm associated with these modalities and the treatments included in
8 the research studies reviewed are relatively benign. The majority of studies do not report
9 side effects or injuries. Further, because the literature implies both the risks and benefits
10 among treatment options are similar, it is reasonable that patient/practitioner preference
11 should be an important guide in choice of treatment.

12
13 When determining the appropriate course of treatment for an individual patient, the
14 practitioner must consider contraindications, the physiologic effects of the modality, the
15 likelihood of the modality to enhance recovery or facilitate treatment with manual
16 therapies, and timely transition from passive to active treatment.

17
18 Overall, the scientific literature addressing physical modalities for neck, back, and
19 extremity pain conditions suffers from many of the same limitations observed in the
20 literature of other non-invasive interventions. Much of the literature is still of relatively
21 low methodological quality, and the substantial heterogeneity among studies makes
22 pooling of results extremely difficult. Firm conclusions regarding the effectiveness or
23 ineffectiveness of many of the physical modalities for neck, back, and extremity pain
24 conditions remain difficult. The emergence of more methodologically sound randomized
25 clinical trials could change what is now known.

26
27 Most literature on low back, neck and extremity pain conditions has recommended that
28 patients be encouraged to remain as active as possible and avoid immobilization or
29 complete rest/inactivity (Guzman et al., 2008; Chou et al., 2016; Qaseem et al., 2017;
30 McDonagh et al., 2020; Chou et al., 2020; Skelly et al., 2020; Tick et al., 2018; Knezevic
31 et al., 2021; Mertens et al., 2022; French et al., 2022). A distinguishing feature of physical
32 modalities is that they are passive in nature.

33 34 **PRACTITIONER SCOPE AND TRAINING**

35 Practitioners should practice only in the areas in which they are competent based on their
36 education, training and experience. Levels of education, experience, and proficiency may
37 vary among individual practitioners. It is ethically and legally incumbent on a practitioner
38 to determine where they have the knowledge and skills necessary to perform such services
39 and whether the services are within their scope of practice.

40
41 It is best practice for the practitioner to appropriately render services to a member only if
42 they are trained, equally skilled, and adequately competent to deliver a service compared

1 to others trained to perform the same procedure. If the service would be most competently
 2 delivered by another health care practitioner who has more skill and training, it would be
 3 best practice to refer the member to the more expert practitioner.

4
 5 Best practice can be defined as a clinical, scientific, or professional technique, method, or
 6 process that is typically evidence-based and consensus driven and is recognized by a
 7 majority of professionals in a particular field as more effective at delivering a particular
 8 outcome than any other practice (Joint Commission International Accreditation Standards
 9 for Hospitals, 2020).

10
 11 Depending on the practitioner’s scope of practice, training, and experience, a member’s
 12 condition and/or symptoms during examination or the course of treatment may indicate the
 13 need for referral to another practitioner or even emergency care. In such cases it is prudent
 14 for the practitioner to refer the member for appropriate co-management (e.g., to their
 15 primary care physician) or if immediate emergency care is warranted, to contact 911 as
 16 appropriate. See policy *Managing Medical Emergencies (CPG 159 – S)* for information.

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