



# Manual Therapy Interventions for Non- Musculoskeletal Disorders

Optum Health Solutions Musculoskeletal (MSK)  
Utilization Management Policy  
Policy Number: 342

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# Policy Statement

Manual therapy interventions for non-musculoskeletal disorders including spinal or extraspinal manipulative/mobilization therapy are unproven and not medically necessary for the treatment of non-musculoskeletal disorders. The limited number of studies and the quality of research evidence (designs, methodologies, sample sizes, variation of interventions, and outcomes measured) do not permit confident judgments about the effectiveness and safety of manual therapy interventions for the treatment of non-musculoskeletal disorders.

## Purpose

This policy serves as the primary source for utilization review decisions concerning manual therapy interventions including spinal and extraspinal manipulation/mobilization therapy for the treatment of non-musculoskeletal disorders. The policy describes Optum's position concerning the evidence base for manual therapy interventions including manipulative/mobilization services described as high velocity/low amplitude, low velocity/high amplitude (low force), hand-held mechanically assistive manipulation, muscle energy, and soft-tissue techniques, when rendered in the treatment of non-musculoskeletal conditions.

## Scope

The scope of this policy is limited to those conditions that are best categorized as non-musculoskeletal disorders. Conditions that typically present in association with musculoskeletal disorders (e.g., vertigo and headache) are out of scope. Manipulation/mobilization under anesthesia was not included as a manual therapy intervention, as this procedure is addressed in a separate policy.

## Definitions

The following descriptions are applicable to this policy document:

### Non-musculoskeletal disorders

Conditions that are not broadly regarded as having primary etiologies within the musculoskeletal system (Clar et al., 2014).

### Manual therapy

A non-surgical clinical approach that includes different skilled hands-on and/or instrument-assisted techniques used by qualified healthcare providers to assess and/or treat soft tissues and joint structures for the purpose of modulating pain; increasing range of motion (ROM); reducing or eliminating soft tissue inflammation; inducing relaxation; improving contractile and non-contractile tissue repair, extensibility, and/or stability; facilitating movement; and improving function (Clar et al., 2014).

### Manual therapy interventions

Constitute a wide variety of different techniques, which may be categorized into four major groups:

- Manipulation (thrust manipulation)
- Mobilization (non-thrust manipulation and soft tissue mobilization)
- Static stretching
- Muscle energy techniques

The definitions and purposes of manual therapy interventions vary across health care professionals.

### Medical necessity

Demonstrated through prevailing peer-reviewed medical literature to be either:

- Safe and effective for treating or diagnosing the condition for which their use is proposed

OR

- Safe with promising efficacy in a clinically controlled research setting and using a specific research protocol that meets standards equivalent to those defined by the National Institute of Health.

## Clinical Evidence

The body of literature that provides evidence (e.g., somato-autonomic reflexes, somato-humoral pathways, somato-visceral responses) that manual therapy (e.g., spinal manipulation) can impact visceral function is not large. While limited literature confirms that mechanical stimulation of the spine modulates some organ functions in some cohorts, there is a need for more study investigating a comprehensive neurobiological rationale before using a biomechanical treatment of the spine to address disorders of visceral (non-musculoskeletal) function can be justified (Bolton & Budgell, 2012).

Bronfort et al. (2010) showed there are relatively few primary studies to inform clinical practice. The body of studies is characterized mainly by case reports, small cohorts of subjects, uncontrolled trials, one time pilot experimental investigations with no subsequent follow-up, and few higher-quality randomized clinical trials. The field has been slow to adopt more rigorous study designs, using well-supported methods and validated outcomes, needed to determine the therapeutic effectiveness of manual therapy interventions for various non-musculoskeletal disorders.

According to an evidence report by Bronfort et al. (2010) including 49 systemic reviews, 16 evidence based guidelines and 46 randomized controlled trials (RCTs). The evidence is inconclusive regarding manual therapy for acute pneumonia.

Several authors have attempted to demonstrate the value of manual therapy in treating several non-musculoskeletal conditions. For example, according to Kaminsky et al. (2010) chiropractic care for asthma can be used alongside but not as a replacement for traditional medical therapy.

While another author found no supportive evidence of manual therapy for gastrointestinal disorders in a systematic review of clinical trials (Ernst, 2011).

According to Côte et al. (2021) a systemic review including six randomized clinical trials (534 participants); found no evidence of the effects of manual therapy for the treatment of non-musculoskeletal disorders including colic, childhood asthma, hypertension, primary dysmenorrhea, and migraine.

As stated by Clar et al. (2014) in a systemic review of the literature regarding manual therapy for the management of musculoskeletal and non-musculoskeletal disorders. Seventy-two systemic reviews were included, ninety-six RCTs and ten non-randomized primary studies. The authors found little and mostly inconclusive evidence from RCTs on the effectiveness of manual therapy for non-musculoskeletal disorders such as hypertension, chronic obstructive pulmonary disease, premenstrual syndrome, otitis media and nocturnal enuresis.

## Results

Collectively, the direction of outcomes favored subjects receiving manual therapy interventions. However, the limited number of studies and the quality of research evidence (designs, methodologies, sample sizes, variation of interventions, and outcomes measured) do not permit confident judgments about the effectiveness and safety of manual therapy interventions for the treatment of non-musculoskeletal disorders.

The findings of the limited number of new primary research evidence parrots the results and conclusions of systematic reviews. The favorable outcomes reported in pilot RCTs for patients receiving osteopathic manipulative therapy in addition to usual care require larger trials in order to make firm judgments. Higher-quality study designs (e.g., RCTs) using rigorous methods and validated outcomes are needed.

## Conclusion

Potential but unproven benefit: The use of manual therapy interventions for the treatment of non-musculoskeletal conditions is supported by some positive published data regarding safety and/or effectiveness. However, a beneficial impact on health outcomes has not been proven for at least one of two reasons: (1) data are sparse, and the level of evidence is generally low, or (2) data are inconsistent or conflicting.

# Coding Information

Note: The Current Procedural Terminology (CPT) codes listed in this policy may not be all inclusive and are for reference purposes only. The listing of a service code in this policy does not imply that the service described by the code is a covered or non-covered health service. Coverage is determined by the member’s benefit document.

Code	Description
97140	Manual therapy techniques (e.g., mobilization, manipulation, manual lymphatic drainage, manual traction) 1 or more regions, each 15 minutes
98925	Osteopathic manipulative treatment (OMT); 1-2 body regions involved
98926	Osteopathic manipulative treatment (OMT); 3-4 body regions involved
98927	Osteopathic manipulative treatment (OMT); 5-6 body regions involved
98928	Osteopathic manipulative treatment (OMT); 7-8 body regions involved
98929	Osteopathic manipulative treatment (OMT); 9-10 body regions involved
98940	Chiropractic manipulative treatment (CMT); spinal, 1-2 regions
98941	Chiropractic manipulative treatment (CMT); spinal, 3-4 regions
98942	Chiropractic manipulative treatment (CMT); spinal, 5 regions
98943	Chiropractic manipulative treatment (CMT); extraspinal, 1 or more regions

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# References

Bronfort G, Haas M, Evans R, et al. Effectiveness of manual therapies: the UK evidence report. *Chiropr Osteopathy* 2010. 18:3.

Clar C, Tsertsvadze A, Court R, et al. Clinical effectiveness of manual therapy for the management of musculoskeletal and non-musculoskeletal conditions: systemic review and update of UK evidence report. 2014. *Chiropractic & Manual Therapies*.

Côté P, Hartvigsen J, Axén I. The global summit on the efficacy and effectiveness of spinal manipulative therapy for the prevention and treatment of non-musculoskeletal disorders: a systematic review of the literature. 2021. *Chiropr Man Therap*.17;29(1):8. doi: 10.1186/s12998-021-00362-9. Erratum in: *Chiropr Man Therap*. 2021 Mar 8;29(1):11.

Ernst E. Chiropractic treatment for gastrointestinal problems: a systematic review of clinical trials. *Can J Gastroenterol* 2011; 25:39–40.

Kaminskyj A, Frazier M, Johnstone K, et al. Chiropractic care for patients with asthma: a systematic review of the literature. *J Can Chiropr Assoc* 2010; 54:24–32.

# Review and Approval History

Date	Action
03/07/2001	Original effective date; title: <i>Determination of Inappropriate Therapeutic Applications</i>
11/11/2003	Policy inactivated
04/10/2008	Policy activated (approved): policy re-titled; Literature review included. Plain Language Summary appended
11/11/2008	Policy header rebranded, "OptumHealth Care Solutions-Physical Health"
1/15/2009	Policy placed into new format
04/30/2009	Annual review and approval completed
04/08/2010	Annual review and approval completed
10/26/2010	Policy rebranded to "OptumHealth Care Solutions, Inc. (OptumHealth)"
04/07/2011	Annual review and approval completed
04/19/2012	Annual review and approval completed
04/18/2013	Annual review and approval completed
04/17/2014	Annual review and approval completed; Policy rebranded "Optum* by OptumHealth Care Solutions, Inc."
04/16/2015	Annual review and approval completed
07/30/2015	The policy was revised using recently published systematic reviews and evidence syntheses to inform the policy statement. The policy title was changed to encompass a broader range of manual therapy interventions, which were included in the literature review.
04/21/2016	Table 4 updated; Annual review completed
04/20/2017	Table 4 updated; Annual review completed; Legal entity name changed to "OptumHealth Care Solutions, Inc." to "OptumHealth Care Solutions, LLC."
04/26/2018	Annual review completed; no significant changes made to the document
04/25/2019	Annual review completed; Deleted Table 4 (Policies of other health care organizations)
04/23/2020	Annual review completed; no significant changes made to the document
04/22/2021	Annual review completed; no significant changes made to the document
05/03/2022	Annual review completed; no significant changes made to the document
06/29/2022	Updated legal entity name "OptumHealth Care Solutions, LLC." to *Optum™ Physical Health ("Optum") includes OptumHealth Care Solutions, LLC; ACN Group IPA of New York, Inc.; ACN Group IPA of California, Inc. d/b/a OptumHealth Physical Health of California; Managed Physical



Network, Inc.; and OrthoNet Holdings, Inc. which includes OrthoNet New York IPA, Inc., OrthoNet West, Inc., OrthoNet, LLC, OrthoNet of the South, Inc.

<b>04/27/2023</b>	Annual review and approval completed; no significant changes made to the document. Updated contact email from <a href="mailto:policy.inquiry@optumhealth.com">policy.inquiry@optumhealth.com</a> to <a href="mailto:phpolicy_inquiry@optum.com">phpolicy_inquiry@optum.com</a> .
<b>01/31/2024</b>	Annual review; no substantive changes. Document content transitioned to new policy template. Approved by Optum Clinical Guideline Advisory Committee.
<b>04/25/2024</b>	Annual review and approval by Optum Quality Improvement Committee.
<b>02/12/2025</b>	Annual review; no substantive changes. Approved by Optum Clinical Guideline Advisory Committee.
<b>04/24/2025</b>	Annual review and approval by Optum Quality Improvement Committee.

# Plain Language Summary

## Manual Therapy Interventions for Non-Musculoskeletal disorders

### Utilization Management Policy # 342

Plain Language Summaries are presented to supplement the associated clinical policy or guideline. These summaries are not a substitute for advice from your own healthcare provider.

#### What are manual therapy interventions for non-musculoskeletal disorders and what is known about it so far?

Manual therapy interventions include hands-on treatments such as manipulation (adjustments), mobilization (a gentler version of manipulation), and different types of stretching techniques. These “interventions” have been shown to be an effective treatment option for common spinal and extremity pain of musculoskeletal origin. Clinicians such as chiropractors and physical therapists, as well as patients, have observed that manual therapy may also be helpful in the treatment of certain non-musculoskeletal disorders.

Non-musculoskeletal conditions represent a variety of ailments typically associated with body systems such as gastrointestinal, cardiovascular, pulmonary, etc. There are scientific mechanisms and theories suggesting it is possible that manual therapy (usually of the spine) can help in the treatment of these types of conditions. There is little high-quality research, however, to support these theories in clinical practice. The conclusions of others who evaluated the literature generally found the evidence to be insufficient to support manual therapy for the treatment of non-musculoskeletal disorders.

#### How were manual therapy interventions for non-musculoskeletal disorders evaluated?

A work group of clinicians was assigned to review the available research. The internet was searched for policies, guidelines, and articles about manual therapy interventions for the treatment of non-musculoskeletal disorders. Recently published literature reviews on this topic were included in the assessment of research. Additionally, the work group independently examined new research studies. Broadly accepted evidence rating scales were used to determine how confident we can be in the results of these studies.

Before it was approved, the policy was presented to a series of committees that included independent health care practitioners.

#### What did the work group find?

The evidence about using manual therapy interventions for the treatment of non-musculoskeletal disorders is generally inconclusive. The number of studies are too few and of lower-quality to prove or disprove the effectiveness of manual therapy interventions for the treatment of non-musculoskeletal disorders.

#### What were the limitations of the information?

Manual therapy interventions for the treatment of non-musculoskeletal disorders are viewed as unproven and not medically necessary. Further research is needed before manual therapy interventions can be considered established treatment options for any non-musculoskeletal conditions.