

## MEDICAL POLICY – 2.01.100

## Dry Needling of Trigger Points for Myofascial Pain

BCBSA Ref. Policy: 2.01.100

Effective Date: July 1, 2024

Last Revised: June 10, 2024

Replaces: N/A

RELATED MEDICAL POLICIES:

None

Select a hyperlink below to be directed to that section.

[POLICY CRITERIA](#) | [CODING](#) | [RELATED INFORMATION](#)  
[EVIDENCE REVIEW](#) | [REFERENCES](#) | [HISTORY](#)



Clicking this icon returns you to the hyperlinks menu above.

## Introduction

Dry needling is one way to try to manage pain. It does this by accessing trigger points. A trigger point is a band of tight muscle fibers which are attached to the skeleton and located inside of a larger group of muscles. A needle is inserted through the skin and into the taut band of muscle fibers. The goal of stimulating trigger points is to try to stop pain and increase range of motion. It's known as dry needling because no medication is used. Dry needling is not acupuncture. In dry needling, the needle can go deep inside muscle tissue, directly into areas that a physical therapist isn't able to directly touch, examine, or manipulate. A number of studies have been done on dry needling and there is no evidence to show that dry needling is more effective than other treatments in reducing pain or increasing range of motion. Dry needling is considered investigational (unproven).

**Note:** The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

## Policy Coverage Criteria

Treatment	Investigational
Dry needling of trigger points	Dry needling of trigger points for the treatment of myofascial pain is considered investigational.

## Coding

Code	Description
<b>CPT</b>	
20560	Needle insertion(s) without injection(s); 1 or 2 muscle(s)
20561	Needle insertion(s) without injection(s); 3 or more muscles

**Note:** CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). HCPCS codes, descriptions and materials are copyrighted by Centers for Medicare Services (CMS).

## Related Information

N/A

## Evidence Review

### Description

Trigger points are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Dry needling refers to a procedure whereby a fine needle is inserted into the trigger point to induce a twitch response and relieve the pain.

## Background

### Myofascial Trigger Points

Myofascial pain is defined by the presence of trigger points which are discrete, focal, hyperirritable spots within a taut band of skeletal muscle fibers that produce local and/or referred pain when stimulated. Trigger points are likely a result of injury to muscle fibers, but the pathophysiology is not fully defined.<sup>1</sup> Trigger points can be visualized by magnetic resonance imaging and elastography. The reliability of manual identification of trigger points has not been established.

### Dry Needling

Dry needling refers to a procedure in which a fine needle is inserted into the skin and muscle at a site of myofascial pain. The needle may be moved in an up-and-down motion, rotated, and/or left in place for as long as 30 minutes. The intent is to stimulate underlying myofascial trigger points, muscles, and connective tissues to manage myofascial pain. Dry needling may be performed with acupuncture needles or standard hypodermic needles but is performed without the injection of medications (e.g., anesthetics, corticosteroids). Dry needling is proposed to treat dysfunctions in skeletal muscle, fascia, and connective tissue; diminish persistent peripheral pain; and reduce impairments of body structure and function.

The physiologic basis for dry needling depends on the targeted tissue and treatment objectives. The most studied targets are trigger points.

Deep dry needling is believed to inactivate trigger points by eliciting contraction and subsequent relaxation of the taut band via a spinal cord reflex. This local twitch response is defined as a transient visible or palpable contraction or dimpling of the muscle and has been associated with alleviation of spontaneous electrical activity; reduction of numerous nociceptive, inflammatory, and immune system related chemicals; and relaxation of the taut band. Deep dry needling of trigger points is believed to reduce local and referred pain, improve range of motion, and decrease trigger point irritability.

Superficial dry needling is thought to activate mechanoreceptors and have an indirect effect on pain by inhibiting C-fiber pain impulses. The physiologic basis for dry needling treatment of excessive muscle tension, scar tissue, fascia, and connective tissues is not as well described in the literature.



## Summary of Evidence

For individuals who have myofascial trigger points associated with neck and/or shoulder pain who receive dry needling of trigger points, the evidence includes randomized controlled trials (RCTs) and systematic reviews. The relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. A systematic review of techniques to treat myofascial pain included 15 studies of dry needling for neck or shoulder pain published through 2017. Studies had multiple methodological limitations, and the reviewers concluded that the evidence for dry needling was not greater than placebo. In more recent systematic reviews and meta-analyses, dry needling was not associated with clinically important reductions in shoulder or neck pain when compared to other physical therapy modalities. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have myofascial trigger points associated with plantar heel pain who receive dry needling of trigger points, the evidence includes a systematic review of randomized trials. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The systematic review included 6 randomized trials enrolling 395 individuals and found no overall difference in pain intensity in those treated with dry needling compared with active control, placebo, or no intervention. However, pain intensity after at least 3 sessions, long-term pain intensity, and pain-related disability were improved. The systematic review rated the evidence as low to moderate. The evidence for dry needling in individuals with plantar heel pain is limited by small patient populations and lack of blinding; therefore, additional RCTs are needed to strengthen the evidence base. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have myofascial trigger points associated with temporomandibular myofascial pain who receive dry needling of trigger points, the evidence includes two RCT. The relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. One double-blind, sham-controlled randomized trial was identified; it found that one week after completing the intervention, there were no statistically significant differences between groups in pain scores or function (unassisted jaw opening without pain). There was a significantly higher pain pressure threshold in the treatment group. The second RCT (N=50) compared dry needling to manual therapy. Both groups experienced improvements from baseline to the end of the study but there was no difference between groups in pain intensity, maximal mouth opening, or disability (using the Neck Disability Index). Methodological quality was limited by a lack of blinding and no reporting of power/sample size calculation. Additional RCTs, especially those with a sham-control group, are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.



## Ongoing and Unpublished Clinical Trials

Some currently ongoing and unpublished trials that might influence this review are listed in [Table 1](#).

**Table 1. Summary of Key Trials**

NCT No.	Trial Name	Planned Enrollment	Completion Date
<b>Ongoing</b>			
<a href="#">NCT06023264</a>	Randomized, Open Clinical Trial to Evaluate the Effect of Dry Needling on the Temporomandibular Joint in Subjects Who Have Suffered a Whiplash as a Result of a Traffic Accident	50	May 2024
<a href="#">NCT04726683</a>	Trigger Point Dry Needling vs Injection in Patients With Temporomandibular Disorders: A Randomized Placebo-controlled Trial	64	Dec 2024
<a href="#">NCT06074640</a>	Effects of Post Isometric Relaxation With and Without Dry Needling in Triceps Surae With Chronic Heel Pain	42	Apr 2024
<a href="#">NCT05915091</a>	Comparative Effects of Dry Needling and Cross Friction Massage on Patients With Plantar Fascitis, a Randomized Controlled Trial	60	Aug 2023
<a href="#">NCT05810818</a>	Effectiveness Of Dry Needling and Soft Tissue Mobilization Combined With Self-Stretching for Management of Calf and Heel Pain	54	Aug 2023
<a href="#">NCT05868512</a>	Effectiveness of Dry Needling Versus Therapeutic Ultrasound Along With Routine Physical Therapy in Patients With for Chronic Neck Pain; a Randomized Control Trial	31	Aug 2023
<a href="#">NCT05532098</a>	Comparative Efficacy of Platelet Rich Plasma and Dry Needling in Management of Anterior Disc Displacement of Temporomandibular Joint	78	Mar 2023
<b>Unpublished</b>			
<a href="#">NCT04851067</a>	Dry Needling Versus Manual Therapy in Patients With Mechanical Neck Pain: A Randomized Control Trial	75	Mar 2022 (status unknown)
<a href="#">NCT03844802</a>	Effectiveness of Real or Placebo Dry Needling Combined With Therapeutic Exercise in Adults With Chronic Neck Pain	58	Jul 2023
<a href="#">NCT05624515</a>	Efficacy of Dry Needling and Ischaemic Compression of the Scapula Angularis Muscle in Patients With Cervicalgia. Randomised Clinical Trial	80	Jan 2023

## **Practice Guidelines and Position Statements**

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the policy conclusions.

Guidelines or position statements will be considered for inclusion if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

### **American Academy of Orthopaedic Manual Physical Therapists**

In 2009, the American Academy of Orthopaedic Manual Physical Therapists issued a statement that dry needling fell within the scope of physical therapist practice.<sup>17</sup> In support of this position, the Academy stated that “dry needling is a neurophysiological evidence-based treatment technique that requires effective manual assessment of the neuromuscular system.... Research supports that dry needling improves pain control, reduces muscle tension, normalizes biochemical and electrical dysfunction of motor endplates, and facilitates an accelerated return to active rehabilitation.”

### **American Physical Therapy Association**

In 2023, the American Physical Therapy Association published an updated guideline on nonarthritic heel pain (plantar fasciitis).<sup>18</sup> The guideline stated that dry needling of myofascial trigger points in the following areas should be used: gastrocnemius, soles, and plantar muscles of the foot. The evidence supports the efficacy of this technique for pain and long-term function and improved disability, especially in patients with chronic heel pain (defined as lasting more than 1 month). The recommendation was based in part on the systematic review conducted by Llurda-Almuzara discussed above, and more recent studies with methodological limitations including lack of a sham control comparison group.

## Medicare National Coverage

There is no national coverage determination.

## Regulatory Status

Dry needling is considered a procedure and, as such, is not subject to regulation by the US Food and Drug Administration.

## References

1. Bernstein CD, Yonter S, Pradeep A, Shah JP, Weiner DK. Fibromyalgia and Myofascial Pain Syndromes. In: Halter JB, Ouslander JG, Studenski S, High KP, Asthana S, Supiano MA, Ritchie CS, Schmader K. eds. Hazzard's Geriatric Medicine and Gerontology, 8e. McGraw Hill; 2022. <https://accessmedicine-mhmedical-com.proxy.cc.uic.edu/content.aspx?bookid=3201&sectionid=266882376>. Accessed May 9, 2024.
2. Alvarez DJ, Rockwell PG. Trigger points: diagnosis and management. Am Fam Physician. Feb 15 2002; 65(4): 653-60. PMID 11871683
3. Charles D, Hudgins T, MacNaughton J, et al. A systematic review of manual therapy techniques, dry cupping and dry needling in the reduction of myofascial pain and myofascial trigger points. J Bodyw Mov Ther. Jul 2019; 23(3): 539-546. PMID 31563367
4. Navarro-Santana MJ, Sanchez-Infante J, Fernández-de-Las-Peñas C, et al. Effectiveness of Dry Needling for Myofascial Trigger Points Associated with Neck Pain Symptoms: An Updated Systematic Review and Meta-Analysis. J Clin Med. Oct 14 2020; 9(10). PMID 33066556
5. Navarro-Santana MJ, Gómez-Chiguano GF, Cleland JA, et al. Effects of Trigger Point Dry Needling for Nontraumatic Shoulder Pain of Musculoskeletal Origin: A Systematic Review and Meta-Analysis. Phys Ther. Feb 04 2021; 101(2). PMID 33340405
6. Para-García G, García-Muñoz AM, López-Gil JF, et al. Dry Needling Alone or in Combination with Exercise Therapy versus Other Interventions for Reducing Pain and Disability in Subacromial Pain Syndrome: A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. Sep 02 2022; 19(17). PMID 36078676
7. Llurda-Almuzara L, Labata-Lezaun N, Meca-Rivera T, et al. Is Dry Needling Effective for the Management of Plantar Heel Pain or Plantar Fasciitis? An Updated Systematic Review and Meta-Analysis. Pain Med. Jul 25 2021; 22(7): 1630-1641. PMID 33760098



8. Bagcier F, Yilmaz N. The Impact of Extracorporeal Shock Wave Therapy and Dry Needling Combination on Pain and Functionality in the Patients Diagnosed with Plantar Fasciitis. *J Foot Ankle Surg.* 2020; 59(4): 689-693. PMID 32340838
9. Cotchett MP, Munteanu SE, Landorf KB. Effectiveness of trigger point dry needling for plantar heel pain: a randomized controlled trial. *Phys Ther.* Aug 2014; 94(8): 1083-94. PMID 24700136
10. Eftekharsadat B, Babaei-Ghazani A, Zeinolabedinzadeh V. Dry needling in patients with chronic heel pain due to plantar fasciitis: A single-blinded randomized clinical trial. *Med J Islam Repub Iran.* 2016; 30: 401. PMID 27683642
11. Rahbar M, Kargar A, Eslamian F, Dolatkah N. Comparing the efficacy of dry needling and extracorporeal shock wave therapy in treatment of plantar fasciitis. *J Mazandaran Univ Med Sci.* 2018;28(164):53-62.
12. Rastegar S, Baradaran Mahdavi S, Hoseinzadeh B, et al. Comparison of dry needling and steroid injection in the treatment of plantar fasciitis: a single-blind randomized clinical trial. *Int Orthop.* Jan 2018; 42(1): 109-116. PMID 29119296
13. Uygun E, Aktaş B, Eceviz E, et al. Preliminary Report on the Role of Dry Needling Versus Corticosteroid Injection, an Effective Treatment Method for Plantar Fasciitis: A Randomized Controlled Trial. *J Foot Ankle Surg.* Mar 2019; 58(2): 301-305. PMID 30850099
14. García-de la-Banda-García R, Cortés-Pérez I, Ibancos-Losada MDR, et al. Effectiveness of Dry Needling versus Manual Therapy in Myofascial Temporomandibular Disorders: A Single-Blind Randomized Controlled Trial. *J Pers Med.* Sep 21 2023; 13(9). PMID 37763182
15. Dıraçoğlu D, Vural M, Karan A, et al. Effectiveness of dry needling for the treatment of temporomandibular myofascial pain: a double-blind, randomized, placebo controlled study. *J Back Musculoskelet Rehabil.* 2012; 25(4): 285-90. PMID 23220812
16. Brady S, McEvoy J, Dommerholt J, et al. Adverse events following trigger point dry needling: a prospective survey of chartered physiotherapists. *J Man Manip Ther.* Aug 2014; 22(3): 134-40. PMID 25125935
17. American Academy of Manual Orthopaedic Physical Therapists. AAOMPT position statement on dry needling. 2009;  
[http://aaompt.org/Main/About\\_Us/Position\\_Statements/Main/About\\_Us/Position\\_Statements.aspx?key=03f5a333-f28d-4715-b355-cb25fa9bac2c](http://aaompt.org/Main/About_Us/Position_Statements/Main/About_Us/Position_Statements.aspx?key=03f5a333-f28d-4715-b355-cb25fa9bac2c). Accessed May 9, 2024.
18. Koc TA, Bise CG, Neville C, et al. Heel Pain - Plantar Fasciitis: Revision 2023. *J Orthop Sports Phys Ther.* Dec 2023; 53(12): CPG1-CPG39. PMID 38037331

## History





Date	Comments
01/01/19	New policy approved December 13, 2018. Dry needling and trigger point injections are considered investigational. Policy updated with literature review through February 2018.
07/01/19	Annual Review, approved June 4, 2019. Policy updated with literature review through February 2019; no references added. Policy statement unchanged.
01/01/20	Coding update, added CPT codes 20560 and 20561 (new codes effective 1/1/20).
03/01/20	Archive policy, approved February 26, 2020, March 1, 2020. This policy is being archived due to a high volume of low-dollar reviews.
09/01/23	Reinstating previously archived policy, approved August 8, 2023, effective December 7, 2023 following a 90-day provider notification. Policy updated with literature review through February 10, 2023; references added. Dry needling of trigger points for the treatment of myofascial pain is considered investigational.
07/01/24	Annual Review, approved June 10, 2024. Policy updated with literature review through February 8, 2024; references added. Policy statement unchanged.

**Disclaimer:** This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2024 Premera All Rights Reserved.

**Scope:** Medical policies are systematically developed guidelines that serve as a resource for Company staff when determining coverage for specific medical procedures, drugs or devices. Coverage for medical services is subject to the limits and conditions of the member benefit plan. Members and their providers should consult the member benefit booklet or contact a customer service representative to determine whether there are any benefit limitations applicable to this service or supply. This medical policy does not apply to Medicare Advantage.

