

Dry Needling

Effective: March 1, 2024

Next Review: November 2024

Last Review: January 2024

IMPORTANT REMINDER

Medical Policies are developed to provide guidance for members and providers regarding coverage in accordance with contract terms. Benefit determinations are based in all cases on the applicable contract language. To the extent there may be any conflict between the Medical Policy and contract language, the contract language takes precedence.

PLEASE NOTE: Contracts exclude from coverage, among other things, services or procedures that are considered investigational or cosmetic. Providers may bill members for services or procedures that are considered investigational or cosmetic. Providers are encouraged to inform members before rendering such services that the members are likely to be financially responsible for the cost of these services.

DESCRIPTION

Dry needling, also known as intramuscular stimulation, is the insertion of needles at targeted painful or sensitive trigger points in the muscles and does not involve the injection of medications through the needle.

MEDICAL POLICY CRITERIA

The use of dry needling in combination with other treatments or alone for any indication is considered **investigational**.

NOTE: A summary of the supporting rationale for the policy criteria is at the end of the policy.

CROSS REFERENCES

None

BACKGROUND

Dry needling, also known as intramuscular stimulation, is the insertion of needles at targeted painful or sensitive trigger points in the muscles and does not involve the injection of

medications through the needle. Dry needling is typically used to treat myofascial pain syndrome and is often performed by Western medical practitioners using acupuncture-type needles, which are used to elicit a twitch response to release the trigger point and restore normal function to the muscle. Acupuncture falls within the scope of traditional Chinese medicine and is the insertion of needles at acupuncture points, mostly found along meridian lines. Acupuncture is typically used to treat digestive issues, stress, insomnia, reduced fertility, and chronic pain.

EVIDENCE SUMMARY

SYSTEMATIC REVIEWS

Myofascial Pain Syndrome

Several systematic reviews have been published on the use of dry needling for the treatment of myofascial pain syndrome.^[1-7] These reviews have focused on a broad range of myofascial pain syndrome trigger points including but not limited to, the head, neck, shoulder, back, and heel of the foot. The reviews generally reported that although dry needling could be useful when used in conjunction with other therapies (i.e., acupuncture, massage, etc.), there is not enough evidence to determine the effectiveness of dry needling alone. As a result, more high-quality studies are needed to determine the effectiveness of dry needling for myofascial pain syndrome. The main limitations to these reviews are that the included studies are often of low quality, and there is significant heterogeneity in terms of treatment protocols used in the included studies.

One additional systematic review was identified^[8] that conflicted with the other systematic reviews. The authors concluded that dry needling could be recommended for relieving myofascial pain syndrome in the neck and shoulders. However, their findings found that wet needling (also known as trigger point injection therapy) and other therapies (i.e., physiotherapy) were more effective than dry needling in the treatment of myofascial pain syndrome.

Other Indications

Voluminous systematic reviews have been published on the use of dry needling for the treatment of various indications including subacromial syndrome,^[9, 10] cervicogenic/tension headaches^[11, 12], lower back pain^[13, 14], neck pain^[15], knee pain^[16, 17], hamstring tightness^[18], and multiple body regions assessed simultaneously.^[19-21] Many of these reviews include nonrandomized studies in their analysis and studies comparing dry needling to a variety of other pain treatments, making it difficult to pool results for meta-analyses. The reviews generally reported that dry needling had a positive effect on pain reduction, but the beneficial effects were similar to other treatment modalities. Methodological differences in the treatment parameters were evident in most reviews. In addition, most of the studies included in these reviews lack long-term follow-up, and those that do, report no maintenance of improved function at long-term follow-up. All reviews conclude that more high-quality RCTs with long-term follow-up are needed to determine the efficacy of dry needling.

RANDOMIZED CONTROLLED TRIALS

Several RCTs^[22-25] were not included in the systematic reviews and focused on dry needling in a variety of locations.

Ahi (2022) published a randomized controlled trial comparing exercise alone to exercise with high-intensity laser therapy (HILT) and to exercise with dry needling in 108 people with myofascial pain syndrome.^[26] All treatments resulted in significant improvement in pain and range of motion. Both HILT and dry needling were significantly better than exercise alone ($p < 0.05$).

Bureau (2022) compared ultrasound-guided dry needling to open-release surgery for chronic lateral epicondylitis.^[27] Sixty-two participants were randomized to dry needling or surgery after an average duration of symptoms of nearly two years. At six months Patient Rated Tennis Elbow Evaluation (PRTEE) scores were similar ($p = 1.00$). The dry needling group was able to return to work earlier ($p < 0.05$). There were no adverse events.

Ceballos-Laita (2022) randomized 38 people with hip osteoarthritis (OA) to three weeks of either dry needling or a self-stretching protocol.^[28] Dry needling was more effective for extensibility of the hip flexor and abductor muscles ($p < 0.05$), but both interventions led to decreased pain and stiffness, and improved physical function.

Espi-Lopez (2017) included 60 participants with patellofemoral pain to compare the effects of dry needling in addition to manual therapy and exercise programs.^[16] The treatment group of dry needling plus manual therapy and exercise did not improve outcomes for pain and disability at 3 month follow up.

Geist (2016) included 27 participants with hamstring extensibility deficits comparing the effects of blunt needling and dry needling^[18]. The treatment group showed no differences when compared to stretching alone after three sessions over a period of four to six weeks. Mason (2016) included 39 subjects comparing dry needling and stretching to a control group of stretching alone^[29]. Two sessions of dry needling were done in the control group and there was no difference in outcomes between the treatment and control groups.

Segura-Orti (2016) included 34 participants with upper trapezius myofascial trigger points comparing the effects of dry needling to strain-counterstrain techniques^[30]. Sessions lasted for three weeks and there were no differences between any groups in any of the outcome measures.

Three of the RCTs focused on dry needling in neck pain.^[23-25] Merjuto-Vazquez⁽¹⁰⁾ included 17 participants who were randomly assigned to either trigger point dry needling for neck pain or added to the waiting list and received no intervention. Participants were assessed one week after the intervention. Results indicated that participants treated with one session of trigger point dry needling experienced a greater decrease in neck pain, greater increase in pressure pain threshold, and an increase in cervical range of motion when compared to those who did not receive the intervention. This RCT only examined short term effects assessing participants at just one time point one week after treatment.

Pecos-Martin^[25] included 72 participants with mechanical idiopathic neck pain for greater than three months and active trigger points in the lower trapezius muscle. Both the treatment and control group received dry needling limiting the conclusions that can be drawn.

Llamas-Ramos^[23] included 94 participants with idiopathic mechanical neck pain who were referred by their physician to physical therapy. Participants were randomly assigned to receive either dry needling or manual therapy and received two treatments. Outcomes were assessed at one and two weeks post treatment. Results indicated that there were similar outcomes in

terms of pain, disability, and cervical range of motion, and more research is needed to examine the long-term effects of dry needling for the management of chronic mechanical neck pain.

Cotchett^[22] included 84 participants with plantar heel pain for at least one month. Participants were randomly assigned to receive real or sham trigger point dry needling, and the intervention consisted of one treatment per week for six weeks. Participants were followed for a total of 12 weeks. Results indicated that although there was an effect with the dry needling, one out of every three people in the study experienced an immediate mild and transitory adverse event.

PRACTICE GUIDELINE SUMMARY

In 2023, the World Health Organization (WHO) published a guideline for non-surgical management of chronic primary low back pain in adults in primary and community care settings.^[31] The guideline recommendation regarding needling therapies states, “Needling therapies such as acupuncture [and other dry needling modalities] may be offered as part of care to adults, including older people with chronic primary low back pain (conditional recommendation in favour of use, low certainty evidence).”

SUMMARY

The current evidence on dry needling for any indication is insufficient and of poor quality limiting the conclusions that can be drawn. Results from randomized controlled trials have been inconsistent. Larger, better quality studies are needed in order to determine the effectiveness of dry needling compared to other interventions or alone for the treatment of any indication. Therefore, the use of dry needling for any indication is considered investigational.

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CODES

Codes	Number	Description
CPT	20560	Needle insertion(s) without injection(s); 1 or 2 muscle(s)
	20561	Needle insertion(s) without injection(s); 3 or more muscles
	20999	Unlisted procedure, musculoskeletal system, general
	97139	Unlisted therapeutic procedure (specify)
HCPCS	None	

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