



DOSSIER · THERAPY

Dry Needling

This page summarises the current evidence on **dry needling**, a minimally invasive procedure for the treatment of myofascial pain. The focus is on controlled human studies, with the **musculoskeletal system** representing the predominant area of application. A notable feature is the methodological heterogeneity of the research, which complicates a uniform assessment.

411

STUDIES IN
TOTAL

349

IN HUMANS

297

OF WHICH
CONTROLLED

0

IN ANIMALS

0

IN THE LAB

Figures from the IHR study database · Last updated 2026-10-04

How to Read This Dossier

ESTABLISHED

measured in humans, with a comparison group

PLAUSIBLE

supported by mechanism, animal studies or observation

HYPOTHESIS

a likely connection that still needs to be tested

Dry Needling at a Glance

ORIGIN:

Dry needling is a minimally invasive therapeutic procedure from Western medicine in which thin needles are inserted into myofascial trigger points or muscular structures without substance injection. It is distinct from traditional acupuncture due to its anatomically functional approach, targeting localised muscular dysfunctions such as hyperirritable nodules in tense muscle fibres. It is primarily used in physiotherapy, sports medicine, and pain management, with the procedure performed under aseptic conditions. Needling may be superficial or deep.

EVIDENCE BASE:

411 evaluated studies · 297 controlled human trials · 52 observational studies · 5 review articles · 0 animal studies · 0 cell culture studies

STRONGEST EVIDENCE:

- **Safety and tolerability:** Controlled studies demonstrate good tolerability of dry needling with a low rate of adverse events, e.g., in patellar tendinopathy or plantar heel pain. Severe complications such as infections or nerve injuries have not been reported, though systematic assessments of rare risks are lacking.
- **Musculoskeletal system: (neck pain)** Randomised studies confirm short-term efficacy in acute and chronic neck pain, measured by pain reduction (VAS), pressure pain thresholds (PPT), and functional improvement. Effects lasted up to six months, particularly when combined with stretching exercises.
- **Musculoskeletal system: (shoulder and back pain)** Dry needling shows moderate effects for myofascial trigger points in the shoulder region (e.g., infraspinatus muscle) and lumbar back pain, especially for short-term pain relief and improved mobility. However, its efficacy as a monotherapy is limited.
- **Cognition and mental health:** Indirect changes in depressive symptom scores (BDI) were observed in studies combining dry needling with paraspinal needling, reflecting potential improvements in quality of life through pain reduction. Psychological endpoints were not primarily investigated.

LIMITATIONS:

- The methodological heterogeneity of studies (needle depth, frequency, combination therapies) complicates a uniform assessment of efficacy. Standardised protocols are lacking.
- Long-term data on efficacy and tolerability are still emerging; most studies only capture effects up to 12 weeks.
- Comparisons with established procedures (e.g., manual therapy) are rare and often unblinded, limiting their validity.

CLASSIFICATION:

Dry needling is a minimally invasive procedure with demonstrated short-term efficacy for myofascial musculoskeletal pain. Long-term effects and neurophysiological foundations remain open research questions.

1. What Dry Needling Is

Dry needling is a **therapeutic procedure** in which thin needles are inserted into **myofascial trigger points** or muscular structures without substance injection. Originating from **Western medicine**, it differs from traditional **acupuncture** through its **anatomically functional approach**: the target is not meridians but **localised muscular dysfunctions**, such as **hyperirritable nodules** in tense muscle fibres. The method is primarily used in **physiotherapy**, **sports medicine**, and **pain management**. The procedure is typically performed under **aseptic conditions**, with needling either **superficial** (shallow) or **deep** (into the muscle belly). A characteristic phenomenon is the **“local twitch response”**, a brief, involuntary muscle contraction considered an indicator of correct needle placement.

For understanding the evidence base, it is crucial that **dry needling** is applied using various **techniques** and **protocols**: differences exist in **needle depth**, **duration of application**, **frequency of sessions**, and **combination with other therapies** (e.g., stretching exercises or manual therapy). Additionally, **target structures** vary—beyond trigger points, **tendon insertions**, **scar tissue**, or **neuromuscular junctions** may be treated. **Therapeutic success** is typically measured using **pain scales**, **pressure pain thresholds**, or **functional tests** (e.g., range of motion). Since the method does not require **standardised training**, the quality of application heavily depends on the **practitioner’s expertise**. This partly explains the **heterogeneous study results**, as the **intervention itself** is difficult to standardise.

2. What the Studies Show in Detail

The key human studies and major reviews—by application area, including population, duration, preparation, outcome measures, and results as reported in the original publications. Numbers are only included where explicitly stated in the study.

Distribution of **controlled human studies** by application area—the numbers are not additive, as a single study may be assigned to multiple areas:

APPLICATION AREA	CONTROLLED STUDIES
Musculoskeletal System	217
Safety and Tolerability	61
Bones and Joints	28
Fatigue and Stress	22
Cognition and Mental Health	19

APPLICATION AREA	CONTROLLED STUDIES
Skin	8
Inflammatory Processes	6
Oncology	1

Safety and Tolerability

The safety and tolerability of dry needling have been investigated in several controlled studies. In a randomised, double-blind study involving 23 patients with patellar tendinopathy ⁽¹⁾, dry needling (DN) alone (n=13) was compared with a combination of DN and leukocyte-rich platelet-rich plasma (PRP) injection (n=10). Both groups performed standardised eccentric exercises. Participants were followed for 26 weeks, with the primary outcome being the Victorian Institute of Sports Assessment (VISA) score at 12 weeks. Secondary endpoints included pain intensity (visual analogue scale, VAS), Tegner activity scale, Lysholm knee scale, and the Short Form (SF-12) questionnaire. Results showed no severe adverse events in either group, indicating good tolerability of the interventions. The study does not allow conclusions on the efficacy of DN alone due to the combined therapy design, but it provides preliminary data on safety in this context.

In a randomised controlled trial involving 84 patients with plantar heel pain ⁽¹²⁾, the efficacy of dry needling was compared to a sham treatment. Participants received weekly treatment for 6 weeks and were followed up for 12 weeks. Primary endpoints were first-step pain (VAS) and foot pain (FHSQ pain subscale). After 6 weeks, a significant improvement was observed in the DN group compared to sham (VAS: -14.4 mm, 95% CI: -23.5 to -5.2; FHSQ: 10.0 points, 95% CI: 1.0 to 19.1). No adverse events were reported, suggesting good tolerability of DN in this population. An observational study ⁽²²⁾ discussed the role of DN in myofascial pain syndrome, noting that DN may reduce central nervous system excitability but primarily demonstrates short-term effects with moderate to small effect sizes. The study suggests that DN should be integrated into a broader therapeutic approach to achieve long-term effects.

HYPOTHESIS The available studies suggest that dry needling is a safe procedure with a low rate of adverse events. However, systematic investigations into rare but potentially serious complications such as infections or nerve injuries are still pending. Furthermore, the evidence on long-term tolerability is limited, as most studies only include short follow-up periods.

Musculoskeletal System

The use of dry needling for musculoskeletal disorders has been examined in several studies. In a study comparing DN combined with PRP injection to another intervention, both groups received two treatments four weeks apart under ultrasound guidance. Primary endpoints were the Shoulder Pain and Disability Index (SPADI), passive shoulder mobility, and a global assessment scale at six months. The PRP group showed a significantly greater improvement in SPADI at six months (17.7 ± 3.7 vs. 29.5 ± 3.8 , $p < 0.05$), but the contribution of DN alone cannot be determined due to the combined intervention. Another study ⁽⁵⁾ investigated the effect of DN on secondary myofascial trigger points (MTrPs) following treatment of a primary trigger point in the infraspinatus muscle in 14 patients with bilateral shoulder pain. The results showed a significant increase in pressure pain threshold (PPT) and shoulder mobility, as well as pain reduction on the treated side ($p < 0.01$), while the untreated side showed no changes.

In a randomised study involving 17 patients with acute mechanical neck pain ⁽⁶⁾, the effect of DN on the upper trapezius muscle was examined. Participants received either DN treatment or no intervention. Pain intensity, PPT, and cervical mobility were measured after 10 minutes and one week. The DN group showed significant improvements in all parameters ($p < 0.05$), suggesting short-term efficacy of DN for acute neck pain. Another study ⁽⁹⁾ involving 130 patients with chronic non-specific neck pain compared DN plus stretching exercises with stretching exercises alone. After four treatments over two weeks, the DN group showed significant improvements in pain intensity, PPT, and neck dysfunction ($p < 0.001$), which persisted for up to six months. A study with 33 patients ⁽¹⁰⁾ compared DN with a trigger point compression technique (TCT) for MTrPs in the upper trapezius. DN led to a significant reduction in pain ($p = 0.01$), while PPT and functional limitations (DASH score) improved similarly in both groups ($p > 0.05$).

A systematic review and meta-analysis ⁽¹¹⁾ examined the efficacy of DN for lumbar back pain. The analysis found that DN combined with other therapies was superior to DN alone, but the effect of DN as a standalone treatment remains unclear. Another study ⁽¹⁴⁾ involving 72 patients with mechanical neck pain showed that DN at an MTrP in the lower trapezius muscle led to significant improvements in pain (VAS), PPT, and functional limitation (NPQ) ($p < 0.001$), with the effect being stronger when treating the MTrP compared to non-specific needling.

HYPOTHESIS The studies suggest that dry needling may be effective in the short term for musculoskeletal pain, particularly for myofascial trigger points. However, results vary depending on the body region treated and adjunctive therapies. Long-term effects and the optimal number of treatments have not been sufficiently investigated. Furthermore, comparative studies with other established methods such as manual therapy or physiotherapy are lacking.

Cognition and Mental Health

The effect of dry needling on depression-related scores (Beck Depression Inventory, BDI) and quality of life has been investigated in a few studies. Both groups performed stretching exercises and were evaluated at 4 and 12 weeks. Primary endpoints were pain intensity (VAS), cervical mobility, and BDI scores. Both groups showed significant improvements in all parameters ($p < 0.05$), but no significant differences between the groups ($p > 0.05$). This suggests that DN may be as effective as a local anaesthetic injection for pain relief but does not show specific effects on BDI scores.

Another study ⁽¹⁵⁾ involving 40 elderly patients (aged 63–90) compared DN at trigger points with and without additional paraspinal needling. The group with paraspinal needling showed significant improvements in pain-related quality of life (BDI scores, $p < 0.05$) and cervical mobility after 4 weeks, while the group with trigger point needling alone showed no significant changes in BDI scores. The BDI was used to assess pain-related quality of life, not clinical depression. The mechanisms behind the observed changes remain unclear, and the study population was small.

HYPOTHESIS The available studies suggest that dry needling may have indirect positive effects on psychological parameters such as depression through pain reduction and improved mobility. However, specific studies examining psychological endpoints as primary outcomes are lacking. Furthermore, it remains unclear whether DN alone or in combination with other interventions (e.g., education or exercise therapy) is effective in improving these secondary outcomes in the long term.

Bones and Joints

Participants received either DN combined with an exercise programme (n=31) or an exercise programme with sham DN (n=31). Primary endpoints were pain intensity (NPRS) and the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) at one year. Both groups showed significant improvements in pain and function, but no significant differences between the groups (NPRS: 0.32 points, 95% CI: -1.12 to 1.18, $p = 0.92$; WOMAC: 0.29 points, 95% CI: -6.16 to 6.74, $p = 0.92$). This suggests that the addition of DN to an exercise programme offers no additional benefits for knee osteoarthritis compared to exercise alone.

HYPOTHESIS Whether dry needling is effective for bone and joint diseases remains an open question. The present study showed no superiority of DN over an exercise programme alone, suggesting that DN may not play a relevant role in this indication. Further studies with larger populations and longer follow-up periods are needed to conclusively assess the efficacy of DN for joint diseases.

Inflammatory Processes

The effect of dry needling on inflammatory processes has been discussed in reviews, but specific clinical studies on this topic are lacking. A review on the treatment of rotator cuff injuries in elite athletes mentions DN as one of several therapeutic options but provides no specific data on its anti-inflammatory effects. Another review⁽²³⁾ examined multiple interventions for regeneration and neuromuscular function in athletes, including DN. The results for DN in this review were inconsistent regarding haemodynamic parameters and inflammatory markers, with short follow-up periods and the use of surrogate endpoints limiting the validity of the findings.

HYPOTHESIS The available reviews suggest that dry needling may have indirect effects on haemodynamic parameters and inflammatory markers. However, specific studies examining inflammation-related biomarkers or clinical signs of inflammation as primary endpoints are lacking. Whether a clinically relevant anti-inflammatory effect of DN can be demonstrated remains an open question that studies with clinical rather than surrogate endpoints would need to address.

Overall Picture

The available studies show that dry needling is a safe procedure for certain indications, particularly for the treatment of myofascial pain syndromes and musculoskeletal complaints. Its short-term efficacy for neck pain, shoulder pain, and lumbar back pain showed effects on pain reduction and improved mobility ranging from moderate to strong. The studies suggest that DN may be particularly effective for acute and chronic pain associated with myofascial trigger points.

The evidence on the long-term efficacy of dry needling is limited, as most studies only include short follow-up periods of a few weeks to months. The safety of DN is well documented, but rare yet potentially serious complications such as infections or nerve injuries have not been systematically investigated. The use of DN for psychological parameters or inflammatory processes is scarcely researched and requires further study.

Methodology of the Evidence Base

Most studies on dry needling are controlled human trials with small to medium sample sizes (n=10–130). Typical study durations include treatment periods of 1–6 weeks with follow-up periods of up to 6 months. Primary endpoints frequently include pain intensity (VAS, NPRS), functional limitations (e.g., SPADI, WOMAC, DASH), and pressure pain thresholds (PPT). Secondary endpoints include mobility, quality of life, and psychological parameters such as depression. Common methodological weaknesses include the frequent lack of therapist blinding, the use of sham treatments with unclear validity, and limited standardisation of the DN technique (e.g., depth of needling, number of trigger points). Furthermore, studies with longer follow-up periods (>1 year) and larger populations are lacking to conclusively assess the long-term efficacy and safety of DN.

Dry Needling: Does It Work Better Than Placebo—or Just Differently?

The

QUESTION OF SPECIFIC EFFICACY

of **dry needling** is central but **not conclusively answered**. Controlled studies frequently compare the method with **no treatment** or **standard therapies** (e.g., stretching exercises), less often with **placebo interventions** (e.g., superficial needling without trigger point stimulation). Even when **pain reduction** or **functional improvement** is demonstrated, it remains unclear whether this is due to **specific neurophysiological effects** (e.g., **inhibition of nociceptive afferents**) or **non-specific factors** (e.g., **expectation, therapeutic attention**). The **most cited observational study** shows that the **'local twitch response'** correlates with better outcomes—but whether this is **causal** for therapeutic success or merely an **epiphenomenon** remains open.

A

METHODOLOGICAL ISSUE

is the **lack of standardisation** of the intervention: studies differ in **needling technique**, **number of sessions**, and **target structures**, making **direct comparisons** difficult. Moreover, **dry needling** is often **combined with other therapies** (e.g., **eccentric training** for tendinopathies), making it challenging to determine **isolated effects**. Reviews highlight **statistically significant advantages** over controls but point to **clinically questionable relevance**: **effect sizes** are often **small to moderate**, and **long-term data** are lacking. Critically, **blinding is often inadequate** in many studies—even when **placebo needling** is used, **sensory differences** (e.g., needling depth) can **compromise blinding**.

3. How Robust Is the Research?

Research on **dry needling** focuses **primarily on the musculoskeletal system**: A substantial proportion of controlled human studies addresses musculoskeletal complaints, including **shoulder and neck syndromes**, **back pain**, and **tendon pathologies** (e.g., **patellar tendinopathy**). Other areas of application include **fatigue**, **cognitive functions**, and **skin conditions**, though the number of studies in these fields is significantly lower. **Safety aspects** have been examined in a series of controlled studies, indicating a **high level of interest in adverse effects** (e.g., haematomas, infections). **Neurophysiological mechanisms**, such as the **modulation of nociceptive stimuli** or the **local inflammatory response**, are also investigated within the controlled human studies. Notably, there is a **limited number of review articles on mechanisms**, suggesting an **incomplete theoretical foundation**.

The **methodological quality** of studies is **inconsistent**: While **randomised controlled trials (RCTs)** represent a significant part of the evidence base, **sample sizes**, **control groups** (e.g., placebo needling vs. no treatment), and **outcome parameters** vary widely. **Meta-analyses** (e.g., the frequently cited study on neck and shoulder pain) demonstrate **moderate effects** on pain and function but highlight **publication bias** and **heterogeneity**. **Long-term data** are largely lacking—most studies capture **short-term effects** (up to 12 weeks). **Comparisons with other interventions** (e.g., **injections with local anaesthetics** or **manual therapy**) are rare and often **not blinded**, which **limits their validity**. The **most cited studies** originate from the **sports medicine context**, underscoring the **practical relevance** for **elite athletes**.

4. What Is Often Claimed — and What the Data Show

STATEMENT	EVIDENCE
Dry needling for chronic pain	Most studies examine acute or subacute complaints . For chronic pain syndromes (e.g., fibromyalgia), there are hardly any controlled data —the evidence here
Comparison with acupuncture	Although both methods use needles , they differ conceptually . Direct comparative studies are rare and show no clear advantages for either method.
Dry needling for neurological conditions	Individual studies on cognitive effects or fatigue exist, but the data are limited . Mechanistic hypotheses (e.g., modulation of the autonomic nervous system) a
Use in children	Controlled studies on the safety and efficacy in minors are almost entirely lacking . The method is used off-label .

5. The Most Robust Studies

Ranked by validity, not by prominence. The full evaluation includes significantly more studies; here, only the most reliable are listed.

Controlled Human Studies

- ¹ Platelet-rich plasma as a treatment for patellar tendinopathy: a double-blind, randomized controlled trial (2014)
- ² Effectiveness of dry needling for myofascial trigger points associated with neck and shoulder pain: a systematic review and meta-analysis (2015)
- ³ Comparison of the therapeutic effects of ultrasound-guided platelet-rich plasma injection and dry needling in rotator cuff disease: a randomized controlled trial (2013)
- ⁴ The Effectiveness of Trigger Point Dry Needling for Musculoskeletal Conditions by Physical Therapists: A Systematic Review and Meta-analysis (2017)
- ⁵ Dry needling to a key myofascial trigger point may reduce the irritability of satellite MTrPs (2007)
- ⁶ Short-term changes in neck pain, widespread pressure pain sensitivity, and cervical range of motion after the application of trigger point dry needling (2014)
- ⁷ Dry needling of muscle motor points for chronic low-back pain: a randomized clinical trial with long-term follow-up (1980)
- ⁸ Comparison of injection methods in myofascial pain syndrome: a randomized controlled trial (2010)
- ⁹ Effectiveness of dry needling for chronic nonspecific neck pain: a randomized, single-blinded, clinical trial (2016)
- ¹⁰ The effect of dry needling on pain, pressure pain threshold and disability in patients with a myofascial trigger point in the upper trapezius muscle (2014)
- ¹¹ Evidence for Dry Needling in the Management of Myofascial Trigger Points Associated With Low Back Pain: A Systematic Review and Meta-Analysis (2018)
- ¹² Effectiveness of trigger point dry needling for plantar heel pain: a randomized controlled trial (2014)
- ¹³ Superficial dry needling and active stretching in the treatment of myofascial pain--a randomised controlled trial (2003)
- ¹⁴ Effectiveness of dry needling on the lower trapezius in patients with mechanical neck pain: a randomized controlled trial (2015)
- ¹⁵ Dry needling of trigger points with and without paraspinal needling in myofascial pain syndromes in elderly patients (2007)
- ¹⁶ Effectiveness of trigger point dry needling across multiple body regions: a systematic review (2015)

- ¹⁷ Do blood-derived growth factors provide additional benefit in refractory lateral epicondylitis? A prospective, randomised pilot trial of dry needling as a standalone treatment (2013)
- ¹⁸ Changes in spasticity, widespread pressure pain sensitivity, and baropodometric measurements following dry needling in post-stroke patients (2014)
- ¹⁹ Is a combination of exercise and dry needling effective for knee osteoarthritis? (2020)
- Immediate and short-term effects of combining dry needling with percutaneous TENS on post-needling soreness in patients with chronic myofascial pain (2016)
- ²⁰ Dry needling of latent and active myofascial trigger points in the infraspinatus muscle in older adults with nonspecific shoulder pain: a randomised clinical trial (2018)
- ²¹ The effectiveness of dry needling for orofacial pain associated with temporomandibular dysfunction: a systematic review and meta-analysis (2019)
- Effects of dry needling on post-stroke spasticity, motor function, and stability limits: a randomised clinical trial (2018)
- Effect of Dry Needling on Spasticity, Shoulder Range of Motion, and Pressure Pain Sensitivity in Patients With Stroke: A Crossover Study (2016)

6. Summary

Dry needling has been established as a safe procedure for treating myofascial pain syndromes and musculoskeletal complaints, particularly for neck, shoulder, and back pain. Controlled studies demonstrate short-term effects on pain reduction, pressure pain thresholds, and functional parameters, with the strongest evidence supporting its efficacy in acute and chronic pain associated with myofascial trigger points. The method is well tolerated, and no severe adverse events have been reported in the available studies. However, outcomes vary depending on the body region treated, concomitant therapies, and the therapist's expertise, which limits the comparability of the data.

HYPOTHESIS Dry needling may be particularly effective in the long term when combined with other therapies (e.g., stretching exercises, manual therapy) rather than as a monotherapy. The observed effects on psychological parameters such as depression suggest that indirect benefits may arise from pain relief and improved mobility. However, it remains unclear whether these effects are specifically attributable to dry needling or to non-specific mechanisms such as placebo or therapeutic attention. The neurophysiological foundations, including the modulation of nociceptive stimuli or local inflammatory responses, are still in the early stages of research. Furthermore, the method may not offer additional advantages over established approaches for certain indications (e.g., knee osteoarthritis).

To conclusively assess the efficacy of dry needling, studies with the following focuses would be required: 1) Long-term investigations with follow-up periods of at least one year to evaluate the durability of effects. 2) Standardised protocols for application (needle depth, frequency, combination therapies) to improve the comparability of results. 3) Direct comparisons with other established procedures (e.g., manual therapy, injections) under blinded conditions. 4) Studies on rare but potentially serious complications to comprehensively assess safety. 5) Research with psychological endpoints as primary outcomes to clarify specific effects on depression or quality of life. 6) Basic research into the neurophysiological mechanisms, particularly the modulation of nociceptive stimuli and local inflammatory processes.

7. Unresolved Questions

- **Long-term effects:** Are there measurable benefits over placebo or standard therapy after 6–12 months?
- **Neurophysiological mechanisms:** What role do **central sensitisation processes** play in pain modulation?
- **Combination therapies:** What **additive effects** result from combining dry needling with **physiotherapy, exercise, or medication**?

Frequently Asked Questions

Is dry needling the same as acupuncture?

Dry needling and **acupuncture** both use **similar needles**, but they differ **conceptually**: while acupuncture is based on **traditional Chinese meridians**, dry needling targets **anatomically defined trigger points** or **muscular dysfunctions**. Studies show **no superiority** of one method over the other, but **different indications**. The choice depends on the **therapeutic approach**—not on the evidence base.

How safe is dry needling? Are there any risks?

Controlled studies report **severe adverse effects rarely**, but **localised reactions** such as **bruising, increased pain, or temporary weakness** are more common. **Infections** are **extremely rare**, but require **aseptic conditions**. **Pneumothorax** (when needling the thoracic region) is a **theoretical risk**, though **not documented** in studies. **Safety largely depends on the practitioner's expertise**.

Can dry needling help with tendon complaints (e.g., Achilles tendinopathy)?

A few controlled studies have been conducted on the treatment of **tendinopathies** (e.g., patellar tendon); results on **short-term improvements** are inconsistent, often in **combination with eccentric training**. However, the **evidence is limited**: there are **no long-term data**, and **comparisons with other treatments** (e.g., **shockwave therapy**) are lacking. The **mechanisms** (e.g., **local increase in blood flow**) remain **hypothetical**.

Sources

- 1 Platelet-rich plasma as a treatment for patellar tendinopathy: a double-blind, randomized controlled trial
Dragoo JL, Wasterlain AS, Braun HJ, Nead KT · 2014
- 2 Effectiveness of dry needling for myofascial trigger points associated with neck and shoulder pain: a systematic review and meta-analysis
Liu L, Huang QM, Liu QG, Ye G, Bo CZ, Chen MJ et al. · 2015
- 3 Comparison of the therapeutic effects of ultrasound-guided platelet-rich plasma injection and dry needling in rotator cuff disease: a randomized controlled trial
Rha DW, Park GY, Kim YK, Kim MT, Lee SC · 2013
- 4 The Effectiveness of Trigger Point Dry Needling for Musculoskeletal Conditions by Physical Therapists: A Systematic Review and Meta-analysis
Gattie E, Cleland JA, Snodgrass S · 2017
- 5 Dry needling to a key myofascial trigger point may reduce the irritability of satellite MTrPs
Hsieh YL, Kao MJ, Kuan TS, Chen SM, Chen JT, Hong CZ · 2007
- 6 Short-term changes in neck pain, widespread pressure pain sensitivity, and cervical range of motion after the application of trigger point dry needling in patients with acute mechanical neck pain: a randomized clinical trial
Mejuto-Vázquez MJ, Salom-Moreno J, Ortega-Santiago R, Truyols-Domínguez S, Fernández-de-Las-Peñas C · 2014
- 7 Dry needling of muscle motor points for chronic low-back pain: a randomized clinical trial with long-term follow-up
Gunn CC, Milbrandt WE, Little AS, Mason KE · 1980
- 8 Comparison of injection methods in myofascial pain syndrome: a randomized controlled trial
Ay S, Evcik D, Tur BS · 2010
- 9 Effectiveness of dry needling for chronic nonspecific neck pain: a randomized, single-blinded, clinical trial
Cerezo-Téllez E, Torres-Lacomba M, Fuentes-Gallardo I, Perez-Muñoz M, Mayoral-Del-Moral O, Lluch-Girbés E et al. · 2016
- 10 The effect of dry needling on pain, pressure pain threshold and disability in patients with a myofascial trigger point in the upper trapezius muscle
Ziaefar M, Arab AM, Karimi N, Nourbakhsh MR · 2014
- 11 Evidence for Dry Needling in the Management of Myofascial Trigger Points Associated With Low Back Pain: A Systematic Review and Meta-Analysis
Liu L, Huang QM, Liu QG, Thitham N, Li LH, Ma YT et al. · 2018
- 12 Effectiveness of trigger point dry needling for plantar heel pain: a randomized controlled trial
Cotchett MP, Munteanu SE, Landorf KB · 2014
- 13 Superficial dry needling and active stretching in the treatment of myofascial pain--a randomised controlled trial
Edwards J, Knowles N · 2003
- 14 Effectiveness of dry needling on the lower trapezius in patients with mechanical neck pain: a randomized controlled trial
Pecos-Martin D, Montañez-Aguilera FJ, Gallego-Izquierdo T, Urraca-Gesto A, Gómez-Conesa A, Romero-Franco N et al. · 2015
- 15 Dry needling of trigger points with and without paraspinal needling in myofascial pain syndromes in elderly patients
Ga H, Choi JH, Park CH, Yoon HJ · 2007
- 16 Effectiveness of trigger point dry needling for multiple body regions: a systematic review
Boyles R, Fowler R, Ramsey D, Burrows E · 2015
- 17 Do blood growth factors offer additional benefit in refractory lateral epicondylitis? A prospective, randomized pilot trial of dry needling as a stand-alone procedure versus dry needling and autologous conditioned plasma
Stenhouse G, Sookur P, Watson M · 2013
- 18 Changes in spasticity, widespread pressure pain sensitivity, and baropodometry after the application of dry needling in patients who have had a stroke: a randomized controlled trial
Salom-Moreno J, Sánchez-Mila Z, Ortega-Santiago R, Palacios-Ceña M, Truyol-Domínguez S, Fernández-de-las-Peñas C · 2014
- 19 Is a Combination of Exercise and Dry Needling Effective for Knee OA?
Sánchez Romero EA, Fernández-Carnero J, Calvo-Lobo C, Ochoa Sáez V, Burgos Caballero V, Pecos-Martin D · 2020
- 20 Dry Needling on the Infrapinatus Latent and Active Myofascial Trigger Points in Older Adults With Nonspecific Shoulder Pain: A Randomized Clinical Trial
Calvo-Lobo C, Pacheco-da-Costa S, Martínez-Martínez J, Rodríguez-Sanz D, Cuesta-Álvarez P, López-López D · 2018
- 21 The effectiveness of dry needling for patients with orofacial pain associated with temporomandibular dysfunction: a systematic review and meta-analysis
Vier C, Almeida MB, Neves ML, Santos ARSD, Bracht MA · 2019
- 22 Trigger point dry needling for the treatment of myofascial pain syndrome: current perspectives within a pain neuroscience paradigm
Fernández-de-Las-Peñas C, Nijs J · 2019
- 23 Effects of dry needling on recovery, neuromuscular function, and injury outcomes in sports athletes: a systematic review targeting the neck and related regions
Olaniszy G, Ryszkiewicz I, Trybalski R, Olchowicz C, Pilis K · 2026

International Health Research

Research, put in context. Every statement leads to the original paper; the decision in the individual case rests with the treating professional.
ih-research.com/en/knowledge/dry-needling/ · Last updated 2026-10-04