



@physicaltherapyresearch

# RAPID RESEARCH

---

August 2022

## Inside This Week: Dry Needling vs. Sham Treatments

- 
- ✓ Dry Needling Hamstrings vs. Stretching for Knee Pain

---

  - ✓ Validity of Sham Dry Needling Technique

---

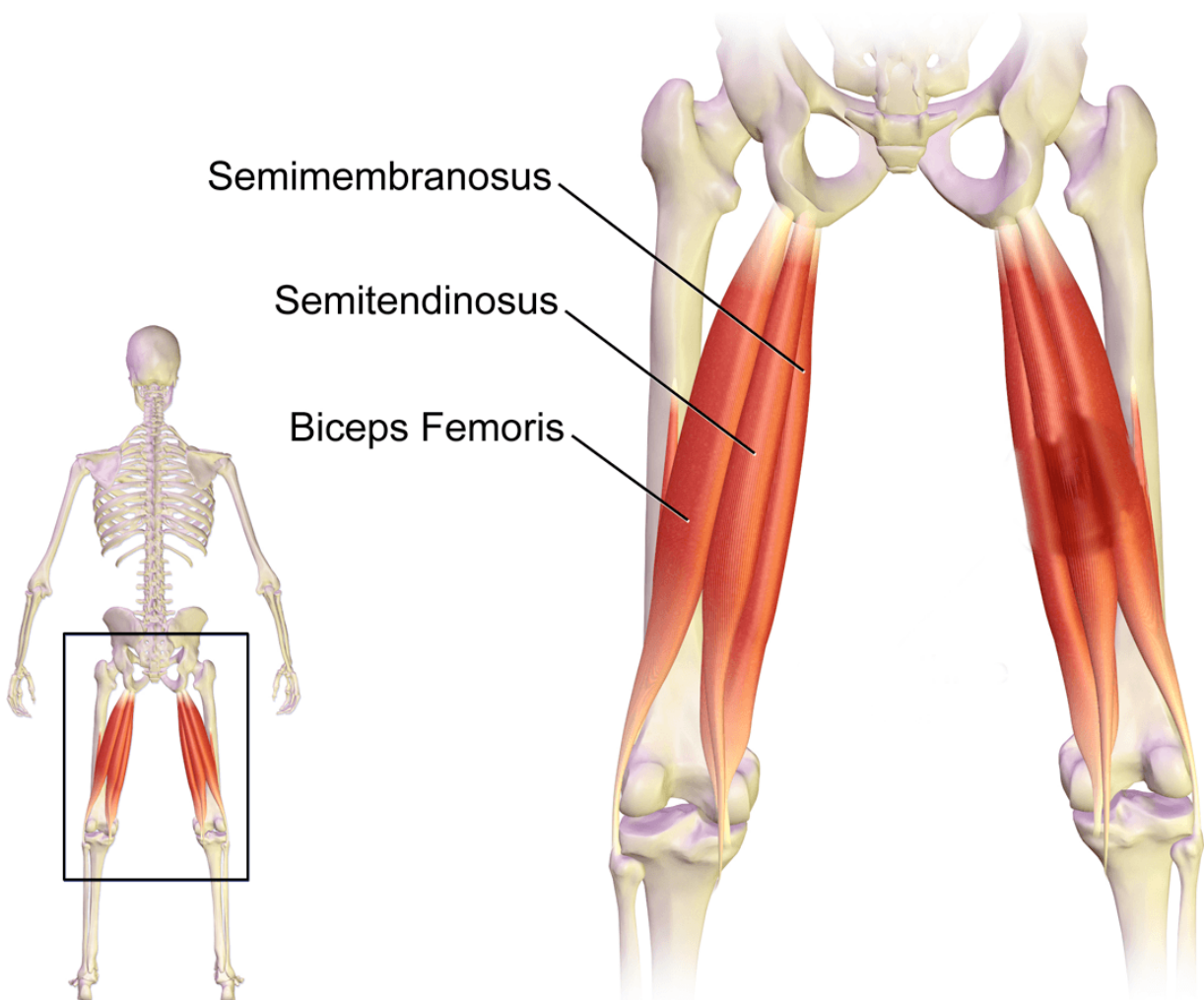
  - ✓ Dry Needling Effectiveness for Neck Pain



# DRY NEEDLING HAMSTRINGS VS. STRETCHING ALONE FOR KNEE PAIN

[Click for Full Text  
\(Mason et al. 2017\)](#)

This research determined if Dry Needling added to a stretching program improved hamstring flexibility vs. stretching alone in patients with knee pain over 1 week.



# KEY FINDINGS

**39 patients randomly assigned to 1 of 2 groups:**

[1] DN group + Stretching | [2] Sham DN + Stretching

**Primary outcome measure:** Hamstring flexibility (AKE and ASLR)

**Secondary:** Squat ROM, Knee pain, Lower Extremity Functional Scale

Statistically significant improvements were seen from baseline to final follow up for both groups in all variables.

Statistically significant improvements in pain and ROM with deep squat were demonstrated for both groups at all time points compared to baseline.

## MAIN TAKEAWAYS

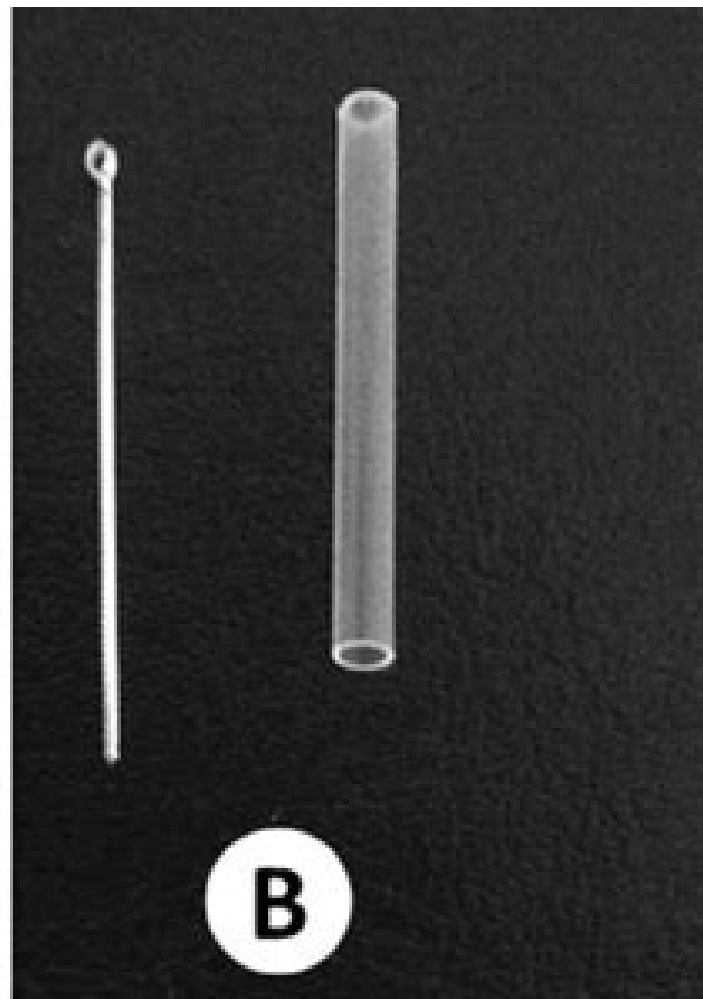
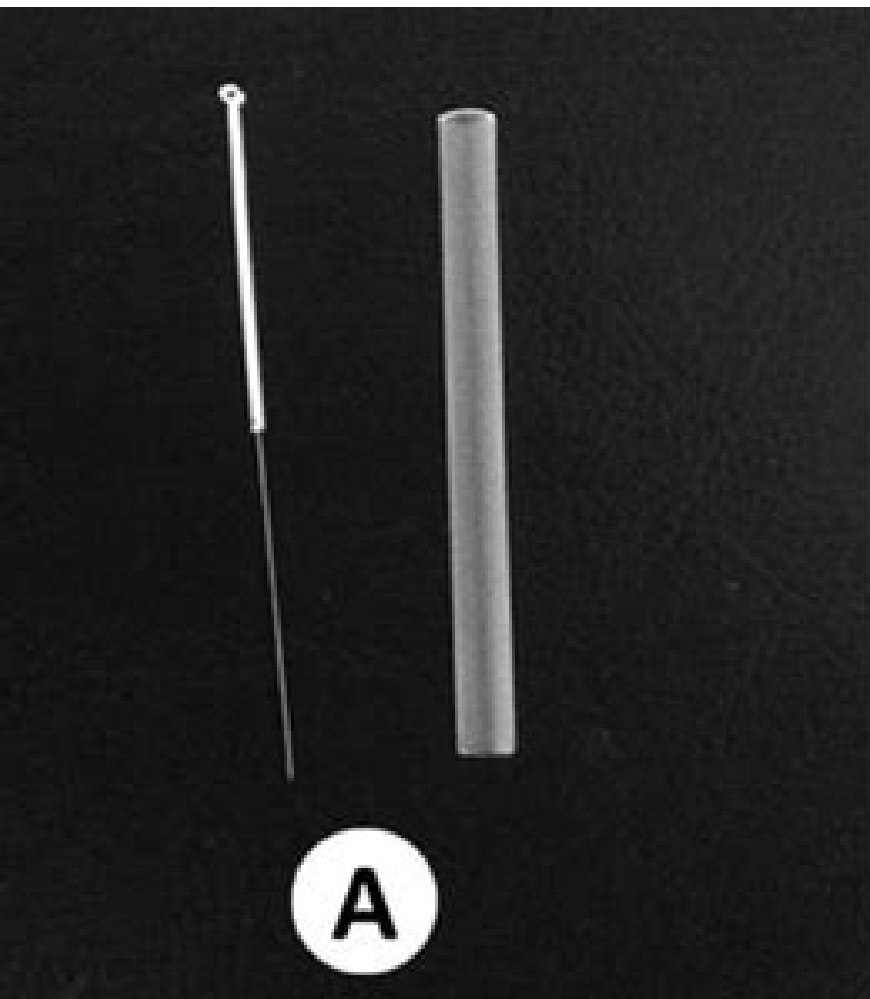
2 sessions of DN and daily stretching did not result in larger improvements in hamstring ROM, pain, and self-reported function compared to daily stretching and sham DN.

Although potentially relevant within-group changes were observed, it is unclear whether these changes were a result of treatment or merely the result of passing time.

# VALIDITY OF SHAM DRY NEEDLING TECHNIQUE

[Click for Full Text](#)  
(Cushman et al. 2021)

This study examined the validity of a sham dry needling technique on healthy, active subjects.



# KEY FINDINGS

**53 Runners were randomized to receive:**

True (using an introducer and needle) or

Sham (using an introducer and fixed, blunted needle) dry needling.

**Blinded subjects were asked to identify if they received sham or true dry needling following the procedure.**

**Those who had received dry needling in the past (n = 16):**

11 (68.8%) correctly identified their respective groups.

**Those who had not received dry needling in the past (n = 37):**

13 (35.1%) accurately identified their group.

**94.1% of dry needling-naïve participants were unable to identify they received the sham procedure.**

## MAIN TAKEAWAYS

**A fixed needle in an introducer tube is a simple, inexpensive, effective sham procedure in patients who have never received dry needling before.**

**Subjects never having received dry needling before were less able to identify if they received the sham or true TrP dry needling than the subjects who had experienced dry needling.**



# DRY NEEDLING EFFECTIVENESS FOR NECK PAIN

[Click for Full Text  
\(Navarro-Santana et al.  
2020\)](#)

This meta-analysis evaluated the effect of dry needling alone as compared to sham needling, no intervention, or other physical interventions applied over trigger points (TrPs) related with neck pain symptoms.



**28 trials included.**

## **Dry needling vs sham/placebo/waiting list/other form of dry needling:**

Reduced pain immediately (1-7 days) after and at short-term (1-12 wks).

Improved pain-related disability at short-term (1-12 wks)

## **Dry needling vs manual therapy:**

Reduced pain at short-term (1-12 wks).

No difference in pain-related disability

## **Dry Needling Overall:**

No differences in comparison with other PT interventions observed.

Effective to improve pressure pain threshold immediately after the intervention.

No effect on cervical ROM of dry needling against either comparative group

No between-treatment effect was observed in any outcome at mid-term.

# MAIN TAKEAWAYS

Moderate-to-low evidence suggests dry needling can be effective for improving neck pain intensity and related disability when compared with a comparative group immediately after and at short-, but not at mid-, term follow-ups.

The effects were mostly observed when dry needling was compared with sham/placebo/waiting list/other forms of dry needling but not against other physical therapy interventions.

No significant effects on the pressure pain sensitivity or cervical range of motion were found.

Quality of clinical trials was relatively low

# GIVE US YOUR FEEDBACK!

## MEMBERS

We are on a mission to make research more accessible, easier to interpret, and quicker to implement.

Help us by giving 1 minute of your time to leave feedback for us.

We would greatly appreciate any feedback you have, as it helps us continually improve!

[Leave Review](#)

