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RAPID RESEARCH

October 2021

Inside This Week: All About Neck Pain

-
- ✓ Manual Therapy vs Exercise For Chronic Neck Pain

 - ✓ Manual Therapy + Exercise for Neck Pain

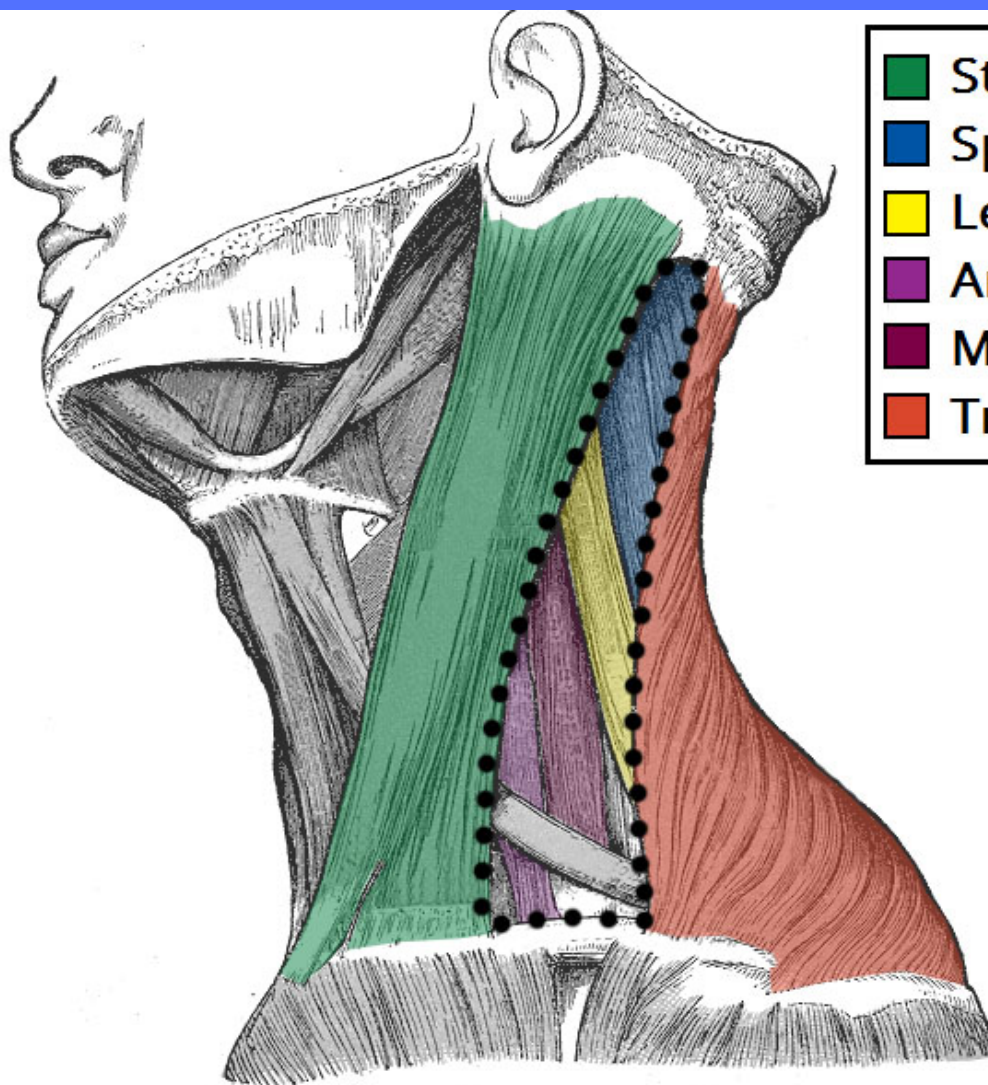
 - ✓ Effectiveness of Dry Needling for Neck Pain



MANUAL THERAPY VS EXERCISE FOR CHRONIC NECK PAIN

[Click for Full Text
\(Bernal-Utrera et al.
2020\)](#)

This randomized controlled trial compared the efficacy of manual therapy to therapeutic exercise in helping non-specific chronic neck pain (NCNP).



- Sternocleidomastoid
- Splenius capitis
- Levator scapulae
- Anterior scalene
- Middle scalene
- Trapezius

KEY FINDINGS

65 participants completed study

Manual Therapy included:

High thoracic manipulation on T4
Cervical articular mobilization (2 Hz, 2 min × 3 series)
Sub-occipital muscle inhibition (3 min)

Therapeutic Exercise Over 3 Weeks Included:

1st phase; Deep cervical flexors.
2nd phase; Isometric deep and superficial flexors.
3rd phase; Eccentric neck flexors and extensors.

No statistically significant differences between manual therapy & exercise groups.

Manual therapy **improved perceived pain**.
Therapeutic exercise **reduced cervical disability**.

Effect size showed **medium and large effects for both experimental treatments**.

MAIN TAKEAWAYS

Both manual therapy and therapeutic exercise, **produced statistically significant and clinically relevant changes** with respect to the control group.

There are **no statistically significant differences in the short and medium terms**.

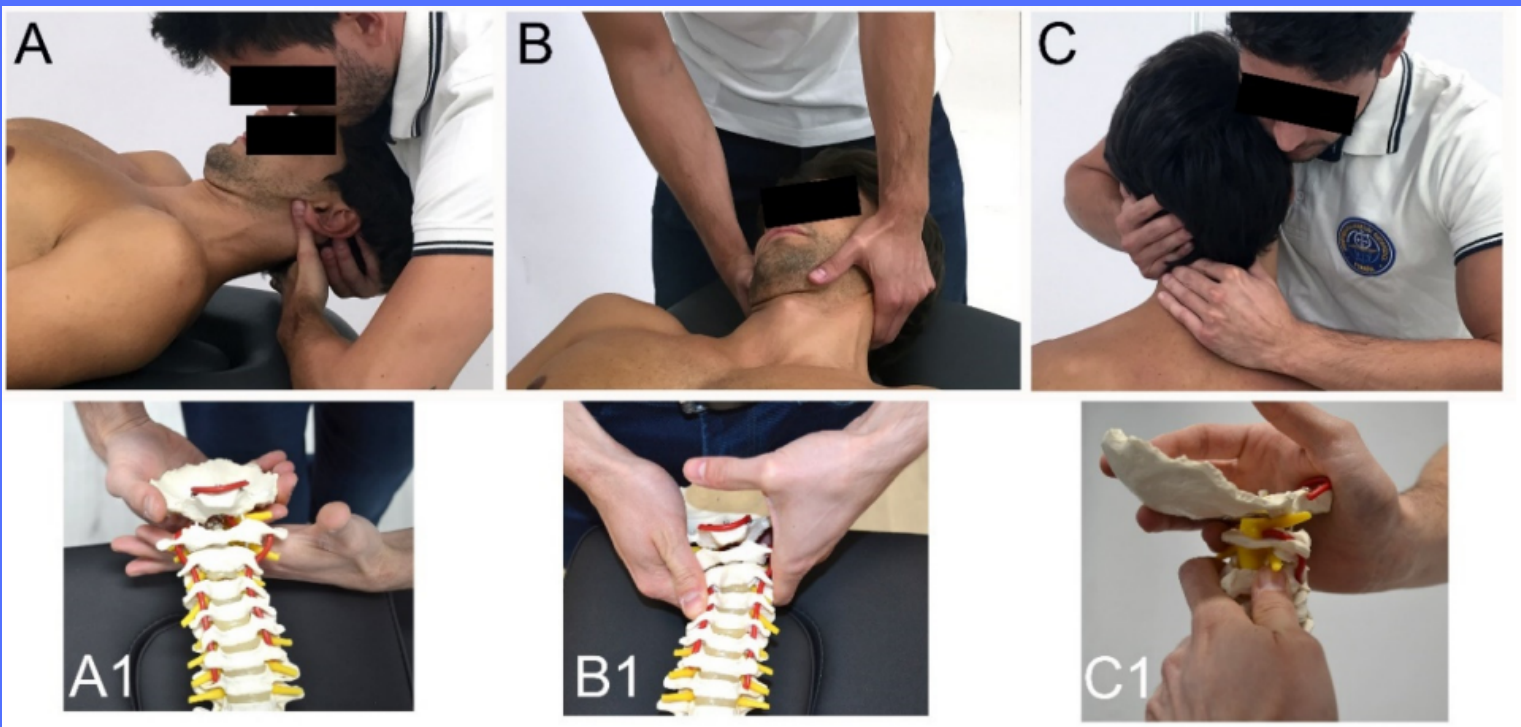
The **therapeutic exercise group reduces cervical disability** before manual therapy does.

The **manual therapy group reduces pain perception** before therapeutic exercise does.

MANUAL THERAPY PLUS EXERCISE FOR NECK PAIN

[Click for Full Text](#)
([Rodriguez-sanz et al. 2020](#))

This research compared the short- and mid-term effectiveness of adding a manual therapy approach to a cervical exercise protocol in patients with chronic neck pain and upper cervical spine dysfunction.



KEY FINDINGS

58 subjects with chronic neck pain and upper cervical spine dysfunction.

29 = Manual therapy + Exercise; 29 = Exercise

Each group received 4, **20-min sessions**.

1 per week during 4 consecutive weeks, & a home exercise regime.

Immediate Follow-Up:

MT + E had statistically significant improvements in pain, disability, and range of movement.

3-month Follow-up:

Statistically significant differences for both groups in favor of the MT + E group for pain, disability, and range of movement.

6-month Follow-up:

Statistically significant differences for both groups in favor of the MT + E group for pain, disability, and range of movement.

The Manual therapy + Exercise group statistically improved short- and medium-term in all variables compared to just Exercise group.

MAIN TAKEAWAYS

Adding manual therapy to exercise programming was **effective in patients with chronic neck pain and upper rotation restriction.**

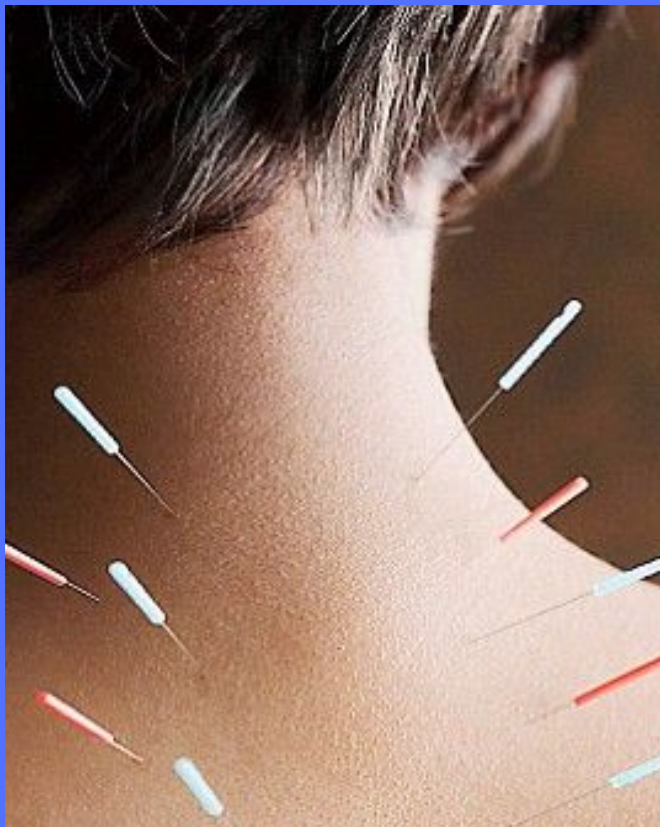
Neck disability index, patients' perception of improvement, upper cervical range of motion, pain intensity, and pressure pain thresholds **improved in the short- (3-months) and mid-term (6-months).**

Craniocervical flexion test in the **mid-term were better in patients who received manual therapy.**

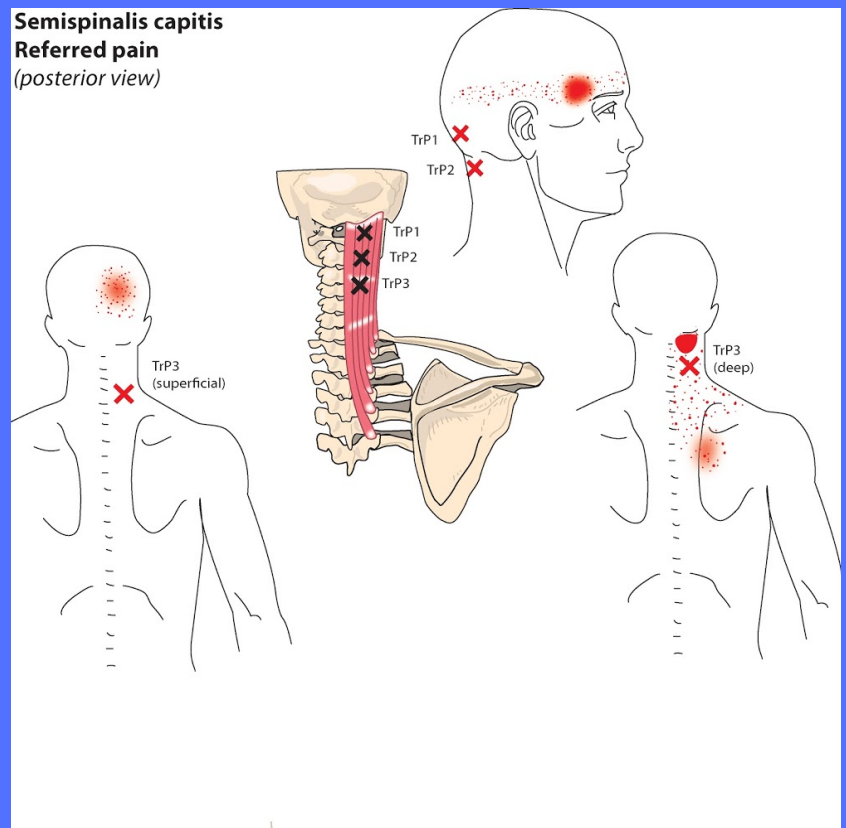
EFFECTIVENESS OF DRY NEEDLING FOR NECK PAIN

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

This systematic review and meta-analysis compares the effects of dry needling against sham, control, no intervention, or other PT treatments applied over muscle TrPs associated with neck pain symptoms.



Semispinalis capitis
Referred pain
(posterior view)



28 trials included.

Dry needling **reduced pain immediately after and in the short-term** when compared with sham/placebo/waiting list/other form of dry needling.

Dry needling **reduced pain at short-term** compared with manual therapy.

No differences in comparison with other PT interventions were observed.

Pain-related disability at the short-term improved when comparing dry needling with sham/placebo/waiting list/other form of dry needling, but not with manual therapy or other interventions.

Dry needling was **effective for improving pressure pain thresholds immediately** after the intervention.

No effect on cervical range of motion of dry needling against either comparative group was found.

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** 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.

Risk of Bias was relatively low, but the **inconsistency and imprecision of the results downgraded the level of evidence.**

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