



@physicaltherapyresearch

# RAPID RESEARCH

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November 2022

## Inside This Week: Frozen Shoulder Treatments

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- ✓ Comparison of Treatments for Frozen Shoulder

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  - ✓ Supra-scapular Nerve Block for Frozen Shoulder

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  - ✓ Effectiveness of PNF Techniques for Frozen Shoulder

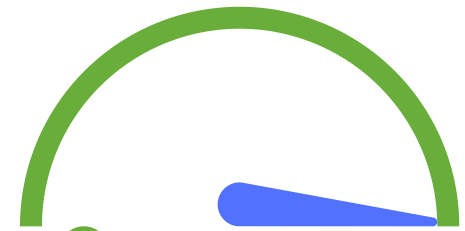


# COMPARISON OF TREATMENTS FOR FROZEN SHOULDER

NOVEMBER 2022

[Click for Full Text  
\(Challoumas et al. 2020\)](#)

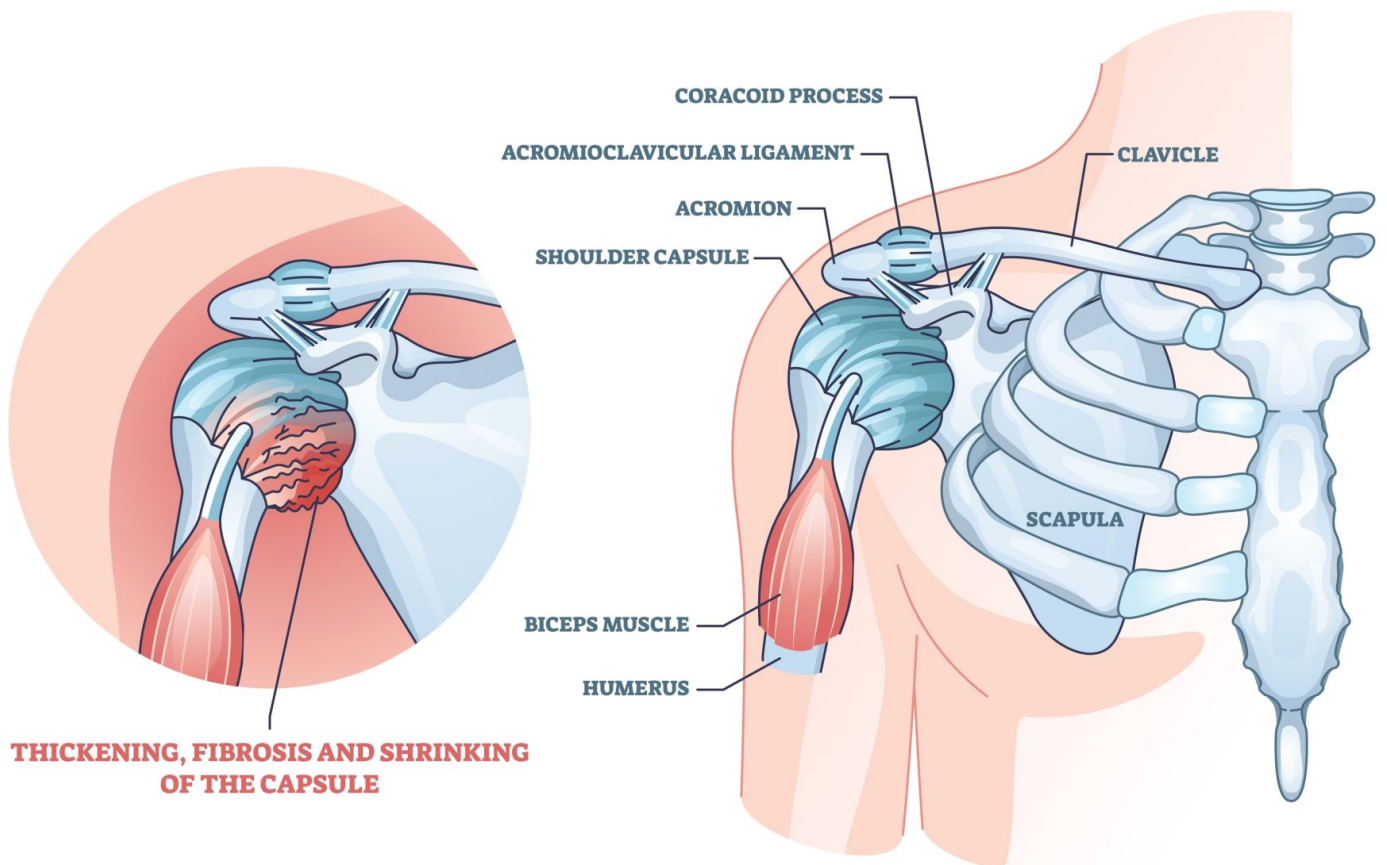
JBIR 11/11 [100%]



✓ **Quality Check**

\*see appx

This systematic review and meta-analysis assessed and compared the effectiveness of available treatment options for frozen shoulder to guide musculoskeletal practitioners and inform guidelines



# KEY FINDINGS

**65 studies included; 4097 participants.**

**34 studies included in pairwise meta-analysis; 2402 participants.**

**39 studies included in network meta-analysis; 2736 participants.**

## OUTCOMES:

Pain, Function, External rotation range of movement (ER ROM).

Short-term (12 wks) | Mid-term (>12 wks-12 mos) | Long-term (>12 mos)

### Pairwise Meta-analyses:

Only intra-articular (IA) corticosteroid was clinically superior in the short-term for pain and function vs. no treatment, placebo, or physiotherapy.

Benefits had lasting effects for up to 6-months.

### Subgroup and Network Meta-analyses:

Addition of physiotherapy/home exercises to IA corticosteroid may be associated with added benefits in the mid-term vs. no treatment or placebo.

# MAIN TAKEAWAYS

IA corticosteroid for patients with frozen shoulder of less than 1 year appears to have earlier benefits vs other interventions, which could last as long as 6 months.

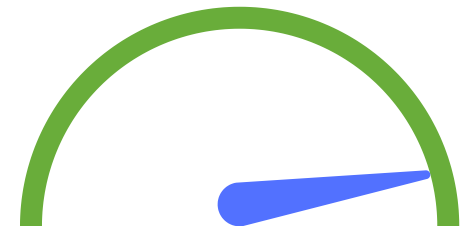
An accompanying home exercise program with simple ROM exercises and stretches is also recommended.

Physiotherapy including electrotherapy and mobilizations can add mid-term benefits and can be used on its own, especially when IA corticosteroid is contra-indicated.

# SUPRA- SCAPULAR NERVE BLOCK FOR FROZEN SHOULDER

[Click for Full Text  
\(Shanahan et al. 2022\)](#)

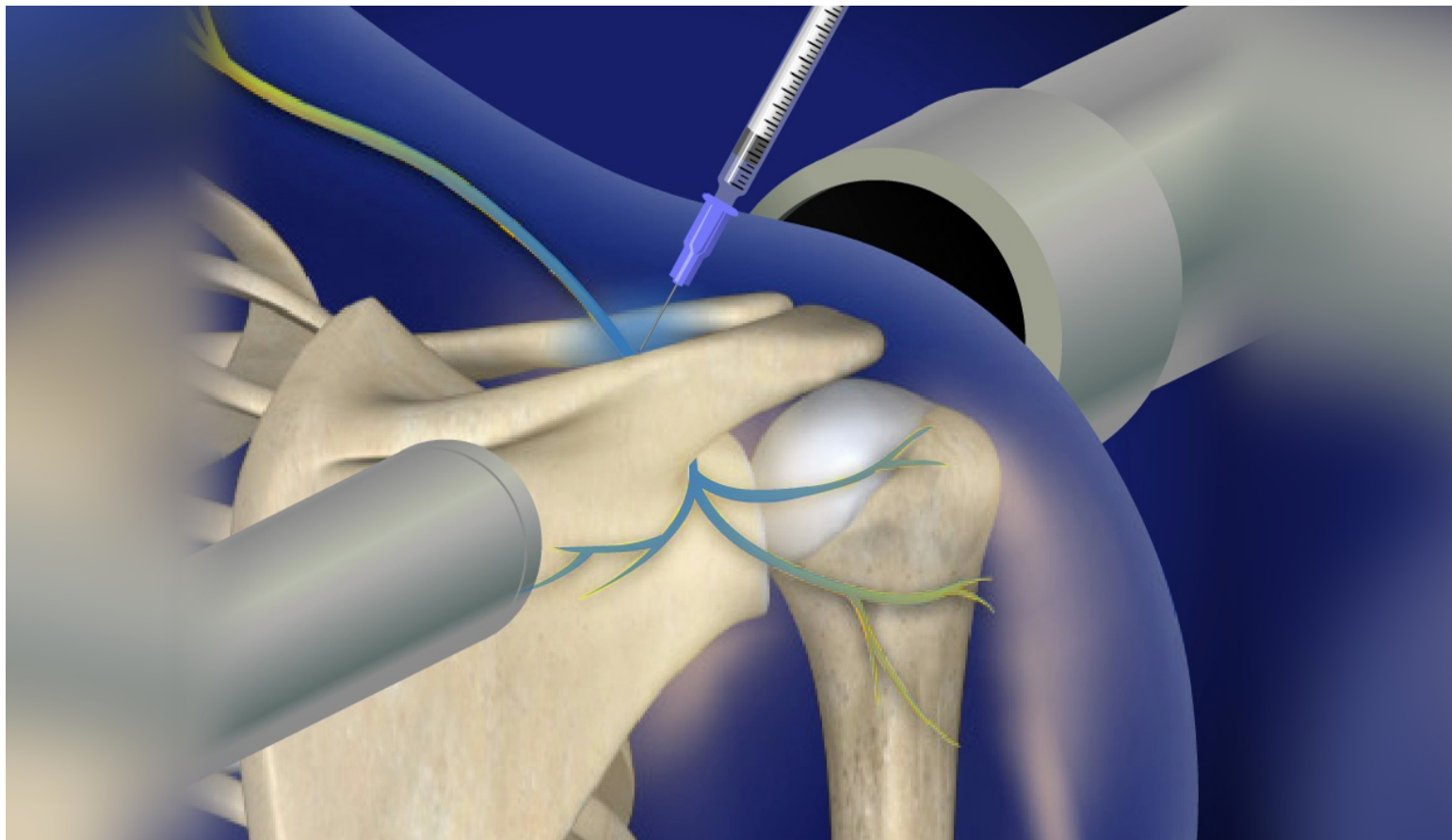
JBI 12/13 [92%]



✓ **Quality Check**

\*see appx

This randomized controlled trial (RCT), examined the efficacy of supra-scapular nerve block (SSNB) for the management of adhesive capsulitis.



# KEY FINDINGS

**54 patients total;**

**SSNB & Standard therapy vs. Placebo & Standard therapy.**

27: Glenohumeral joint (GHJ) injection & physio plus a 3-month SSNB.

27: GHJ injection & physio plus a 3-month placebo injection.

The Primary Outcome Measure: Time to Resolution of Symptoms:

Measured by ROM, Pain scores, Shoulder Pain and Disability Index (SPADI) scores and Perceived recovery scores.

## Outcomes:

SSNB reduced duration of symptoms by an average of 6 months.

Placebo reduced duration of symptoms by an average of 11.2 months.

SSNB reduced pain scores, improved range of movement and lowered SPADI scores vs. placebo across all time points

# MAIN TAKEAWAYS

**Suprascapular nerve block is a safe, simple and effective adjunct therapy for the treatment of adhesive capsulitis.**

**It is well tolerated and shortens the duration of the condition substantially while reducing pain and improving range of movement.**

**SSNB can be used with confidence as an effective therapy for the management of adhesive capsulitis.**

# EFFECTIVENESS OF PNF TECHNIQUES FOR FROZEN SHOULDER

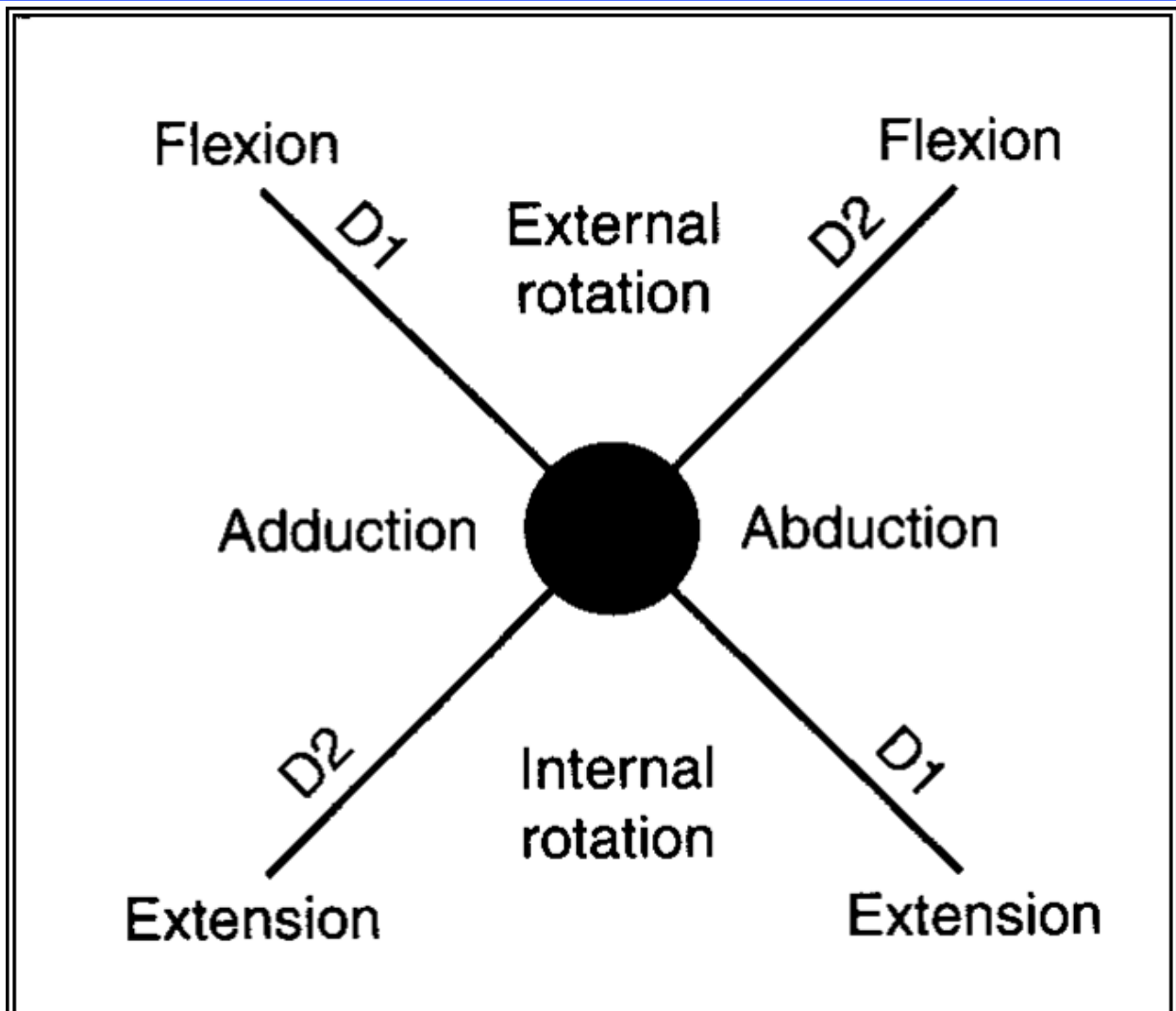
NOVEMBER 2022

[Click for Full Text  
\(Tedler and Sangadala  
2019\)](#)

JBIR 10/11 [90%]



This systematic review determined the effectiveness of proprioceptive neuromuscular facilitation (PNF) treatment techniques in adhesive capsulitis for decreasing pain and disability and increasing range of motion (ROM) and function.



## **10 articles included in the review and meta-analysis.**

Outcomes included External rotation, Abduction ROM and Pain.

The most common PNF techniques included hold-relax and contract-relax in upper limb D2 flexion, abduction, and an external rotation pattern.

9 studies showed significance in decreasing pain and reducing disability, increasing ROM, improving function.

### The PNF Effect sizes:

0.59: Shoulder external rotation

0.41: Abduction

-0.57: Pain

# MAIN TAKEAWAYS

The contract and hold relax techniques of PNF applied in upper limb patterns were shown to be effective in decreasing pain and increasing ROM and function in subjects with Adhesive Capsulitis.

The meta-analysis also showed a significant effect size and that the PNF is superior than conventional physical therapy in decreasing pain, increasing external rotation, and abduction ROM.

# GIVE US YOUR FEEDBACK!

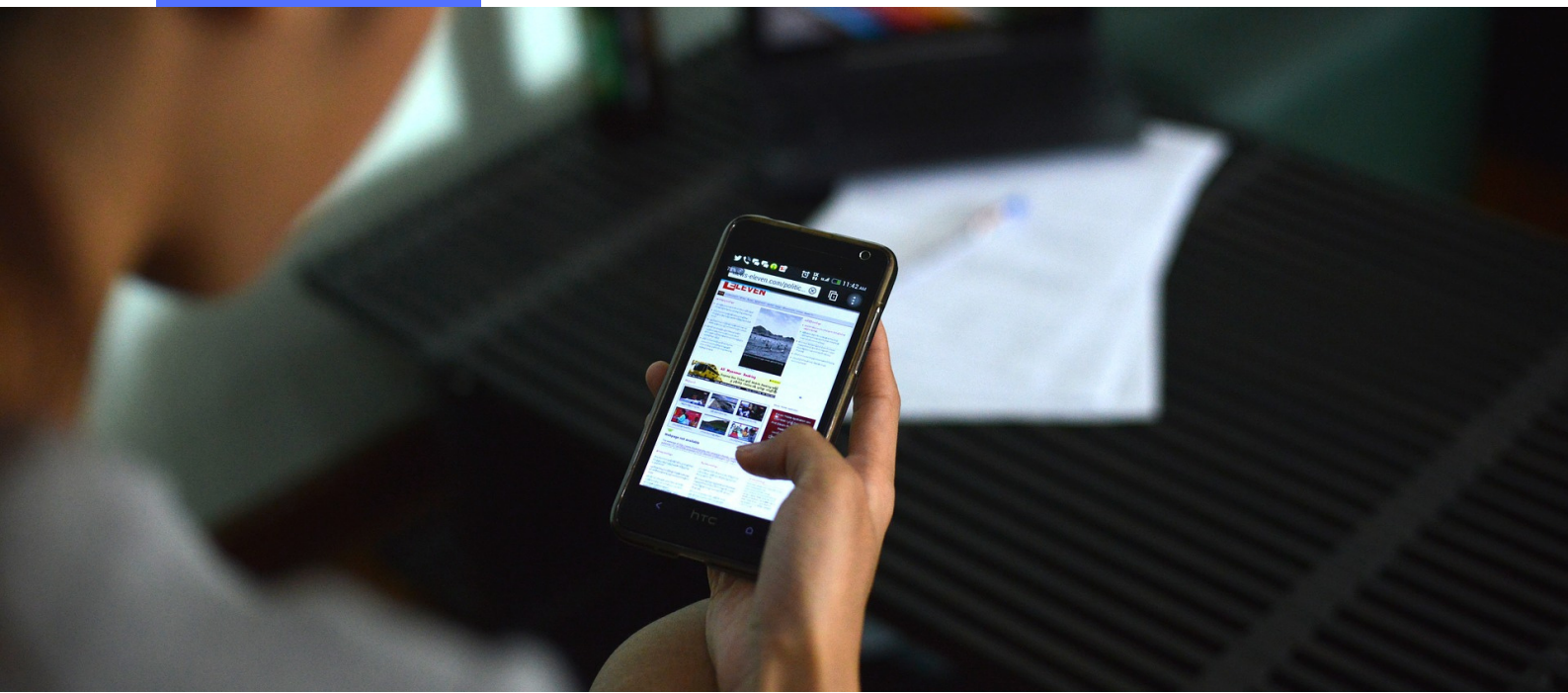
## MEMBERS

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](#)





## JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Challoumas et al Year: 2020

	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were the inclusion criteria appropriate for the review question?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Was the search strategy appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were the sources and resources used to search for studies adequate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were the criteria for appraising studies appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Was critical appraisal conducted by two or more reviewers independently?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were there methods to minimize errors in data extraction?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were the methods used to combine studies appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Was the likelihood of publication bias assessed?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Were recommendations for policy and/or practice supported by the reported data?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were the specific directives for new research appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Overall appraisal: 11/11 (100%)**

LIMITATIONS:

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Frozen shoulder of all chronicity was analyzed together; therefore; conclusions about specific stages and their most effective management could not be drawn.

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Home exercise program's frequency, intensity, and duration were not taken into account in comparisons nor were separate analyses made adjusting for it.

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Physiotherapy interventions, regardless of nature and duration, were grouped and analyzed together

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# JBI CRITICAL APPRAISAL CHECKLIST FOR RANDOMIZED CONTROLLED TRIALS

Author Shanahan et al. Year 2022

	Yes	No	Unclear	Not applicable
1. Was true randomization used for assignment of participants to treatment groups?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Was allocation to treatment groups concealed?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Were treatment groups similar at the baseline?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were participants blind to treatment assignment?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were those delivering treatment blind to treatment assignment?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Were outcomes assessors blind to treatment assignment?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
7. Were treatment groups treated identically other than the intervention of interest?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Were participants analyzed in the groups to which they were randomized?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Were outcomes measured in the same way for treatment groups?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were outcomes measured in a reliable way?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Was appropriate statistical analysis used?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Was the trial design appropriate, and any deviations from the standard RCT design accounted for?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Overall appraisal: 12/13 (92%)**

LIMITATIONS:

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Injection not image guided.

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## JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Tedla and Sangadala Year: 2019

	Yes	No	Unclear	Not applicable
1. Is the review question clearly and explicitly stated?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Were the inclusion criteria appropriate for the review question?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Was the search strategy appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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7. Were there methods to minimize errors in data extraction?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were the methods used to combine studies appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Was the likelihood of publication bias assessed?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
10. Were recommendations for policy and/or practice supported by the reported data?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were the specific directives for new research appropriate?	+	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Overall appraisal: 10/11 (90%)**

LIMITATIONS:

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Combining study types and various methods of PNF treatments.

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Combining data on different PNF techniques

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