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RAPID RESEARCH

October 2022

Inside This Week: Treatments for Upper Limb Nerve Pains

-
- ✓ Treatment for Ulnar Neuropathy at the Elbow

 - ✓ Physio for Cubital Tunnel Syndrome

 - ✓ Median Nerve Mobility & Carpal Tunnel Syndrome



TREATMENT FOR ULNAR NEUROPATHY AT THE ELBOW

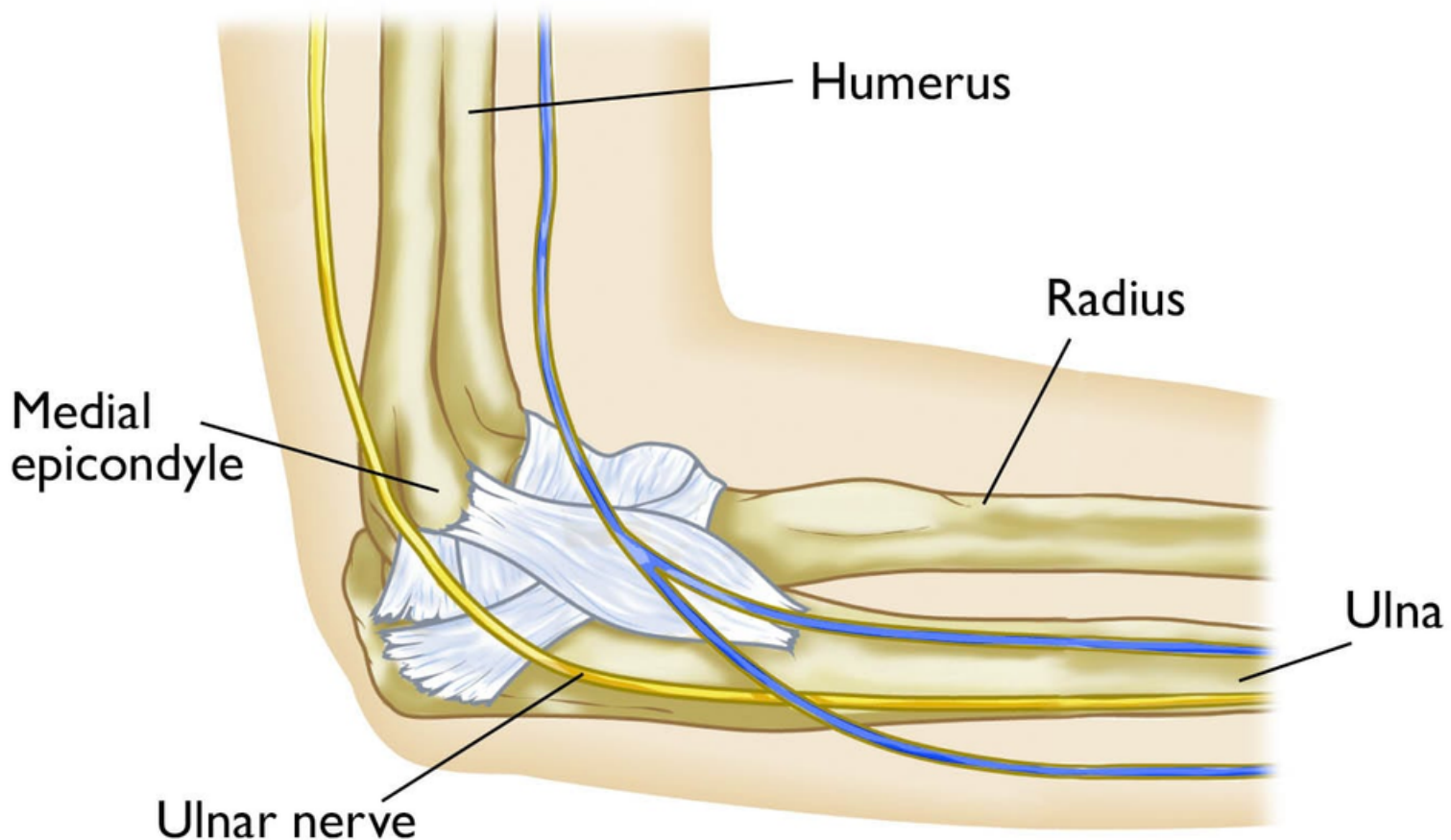
OCTOBER 2022

[Click for Full Text
\(Caliandro et al. 2016\)](#)

JBI 11/11 [100%]



This systematic review determined the effectiveness and safety of conservative and surgical treatment in ulnar neuropathy at the elbow (UNE)



KEY FINDINGS

9 RCT studies included, totaling 587 participants

SURGICAL:

No difference between groups for clinical/neurophysiological improvement.

Simple decompression: 91/131 improved.

Transposition group: 97/130 improved. (higher # of wound infections)

Medial epicondylectomy vs. anterior-transposition: no difference.

CONSERVATIVE; 1 trial (51 participants), low quality:

Avoiding prolonged movements/positions improved subjective discomfort.

Night splinting and nerve gliding exercises + information did not result in further improvement.

Corticosteroid injection vs. Placebo = No Difference at 3 months

MAIN TAKEAWAYS

The available evidence is insufficient to identify the best treatment for idiopathic ulnar neuropathy at the elbow.

We do not know when to treat a person with UNE conservatively or surgically.

However, simple decompression and decompression with transposition are equally effective in idiopathic UNE.

In mild cases, providing information on movements or positions to avoid may reduce subjective discomfort.

PHYSIO FOR CUBITAL TUNNEL SYNDROME

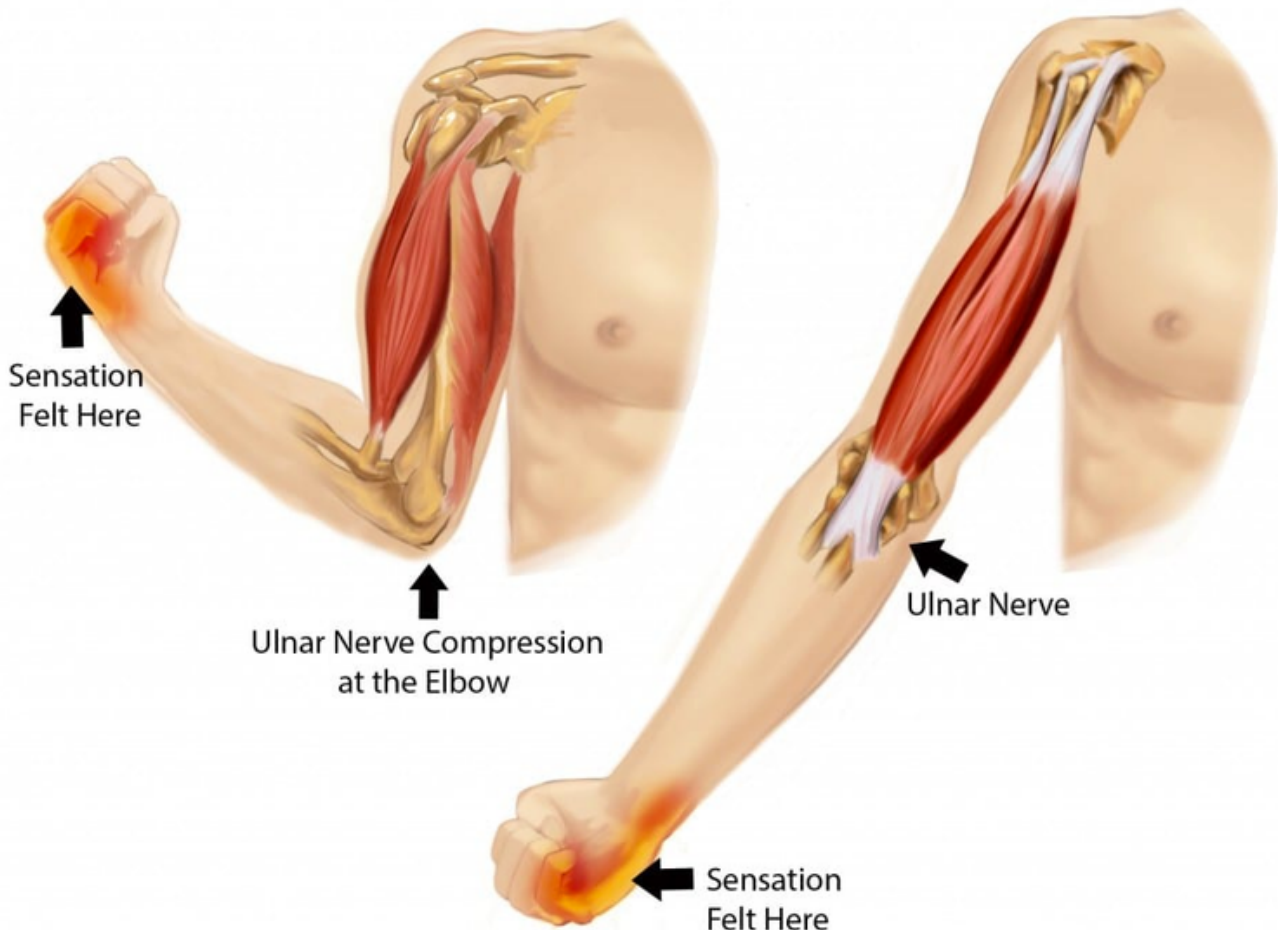
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[Click for Full Text
\(Wolny et al. 2022\)](#)

JB1 10/11 [90%]



This systematic review evaluated the effects of physiotherapy in the conservative treatment of Cubital Tunnel Syndrome (CuTS)



KEY FINDINGS

11 studies included; 187 participants

3 types of measures: pain, muscle strength, and limitation of upper limb function

Physiotherapy was most often based on:

Manual therapy

Neurodynamic techniques

Electrical modalities.

Two RCTs reported significant improvements in the clinical condition, including sensory threshold, and improved nerve conduction at 1, 3, and 6 months of follow-up.

All case studies found significant improvements in pain, function, and strength at 1,3,6 and up to 12 months follow-up.

Only one clinical trial showed no therapeutic effect

MAIN TAKEAWAYS

Physiotherapy could have the potential to demonstrate a positive effect in the treatment of CuTS.

However, it should be considered most published studies to date are of questionable methodological quality.

Thus, further research is required to recommend the best method, duration, and interval of physiotherapy in the clinical practice of people with CuTS.

MEDIAN NERVE MOBILITY & CARPAL TUNNEL SYNDROME

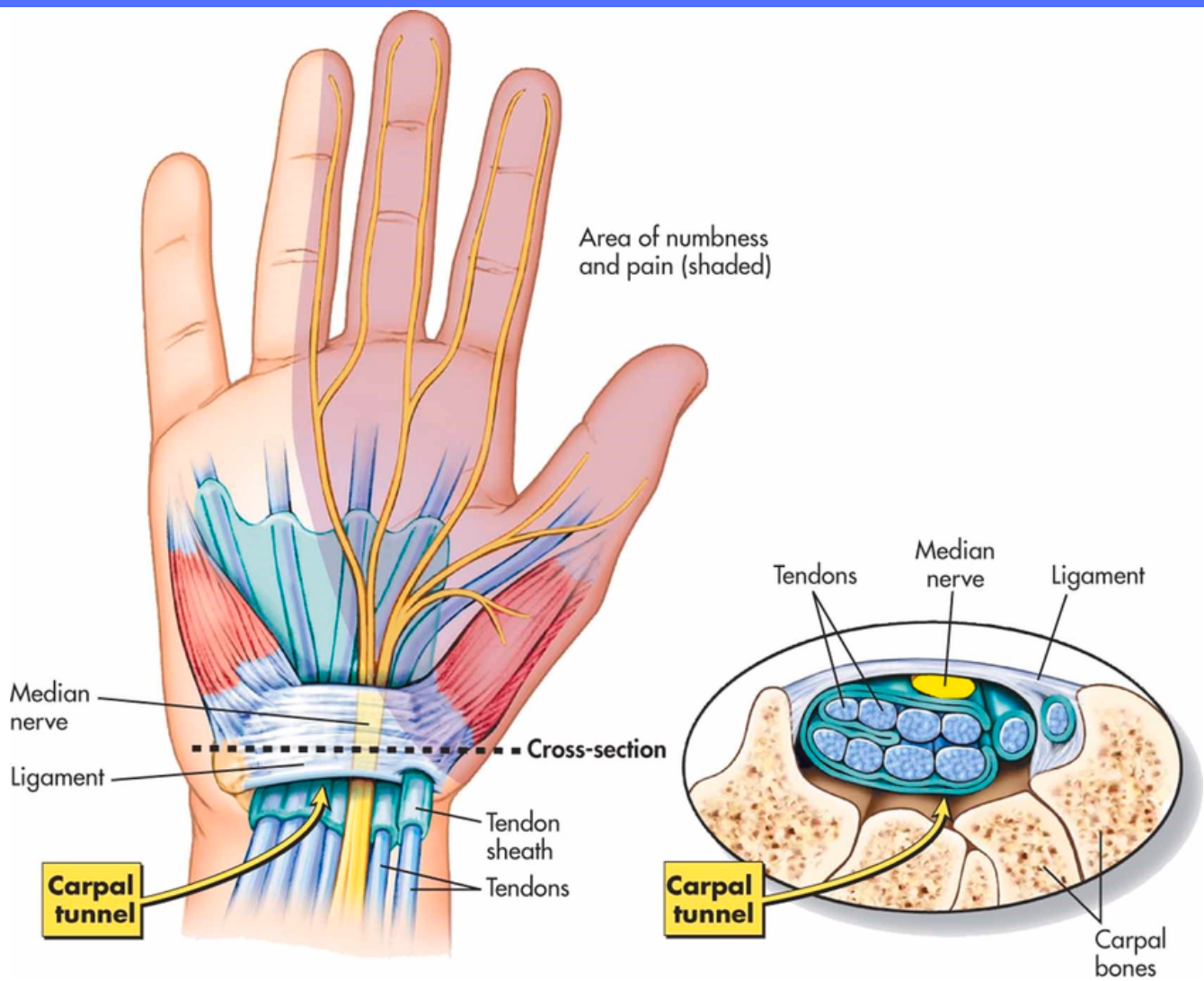
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(Ellis et al. 2017)

JBIC 10/11 [90%]



This systematic review established if there is a relationship between impaired median nerve excursion and Carpal Tunnel Syndrome (CTS).



10 studies included (n=259).

Most studies suggested that there is a decrease in excursion of the median nerve, in both transverse and longitudinal directions, in patients with CTS, when compared with an appropriate control group.

4 studies found significant reductions in the transverse sliding of the median nerve in CTS participants when compared with control participants.

Median nerve excursion was found to be significantly greater during individual finger and thumb movements, for the CTS participants compared with the control participants.

MAIN TAKEAWAYS

Most current literature suggests that there is a degree of reduced median nerve excursion evident in the population of CTS sufferers when compared with healthy controls.

Future research should explore whether improving median nerve excursion improves CTS, to further validate these findings, and advance treatment strategies.

All included studies had a 'moderate' quality rating.

GIVE US YOUR FEEDBACK!

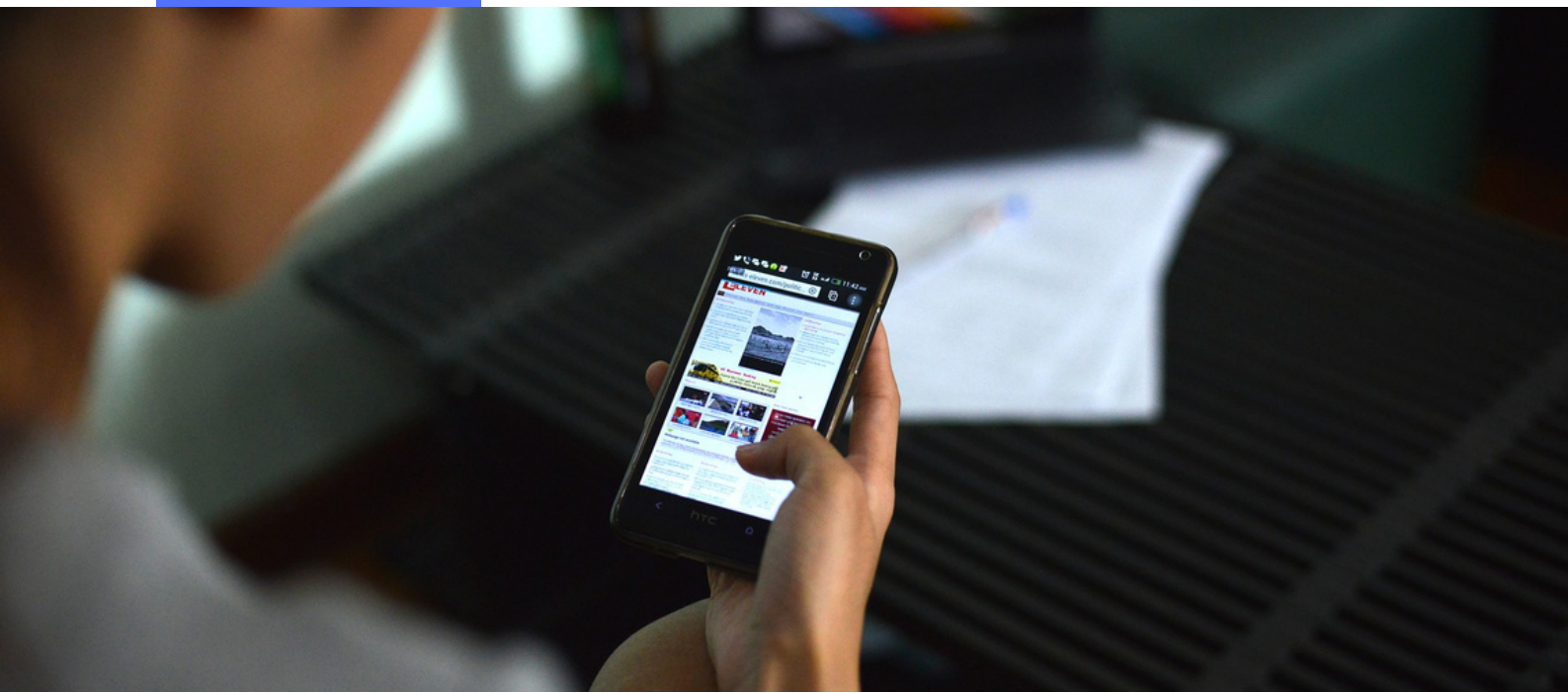
MEMBERS

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!

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JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Caliandro et al. Year: 2016

	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%)

Comments:

Overall, this was another quality cochrane study, looking at evidence for the treatment of Ulnar neuropathy. The focus mainly included articles comparing different surgical techniques and only included 1 article assessing conservative treatment, comparing information with positioning and nerve glides. The findings to inform surgical techniques was useful, however more research is available to assess conservative treatment.

JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Wolny et al. Year: 2022

	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"/>	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%)

Comments:

Overall, this was a quality systematic review, looking at multiple studies evaluating physio to treat cubital tunnel syndrome. All but 1 included RCT and case study, found improvement in the long term with physio treatment for CuTS, including manual therapy, neurodynamics, and electrotherapy. Though the research isn't of the highest quality, it is consistent in its findings.

JBI CRITICAL APPRAISAL CHECKLIST FOR SYSTEMATIC REVIEWS AND RESEARCH SYNTHESSES

Author: Ellis et al. Year: 2017

	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"/>	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%)

Comments:

Overall, this was a good quality systematic review, including moderate level quality research. The findings were pretty clear in the reduction of median nerve excursion and carpal tunnel symptoms. Even the research with our significant findings, did show differences in excursion in patients right to left comparison of affected and unaffected hands.