RAPID RESEARCH

@physicaltherapyresearch

May 2023

Inside This Week:

Testing & Treating Ankle Sprains

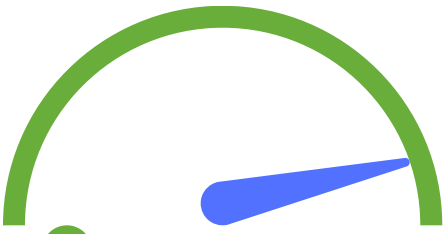
- Manual Therapy Plus Exercise for Lateral Ankle Sprains
- Exercise-based Rehab & Re-injury Rates for Lateral Ankle Sprain
- Accuracy of Clinical Tests Assessing Ankle Ligaments

MANUAL THERAPY PLUS EXERCISE FOR LATERAL ANKLE SPRAINS

MAY 2023

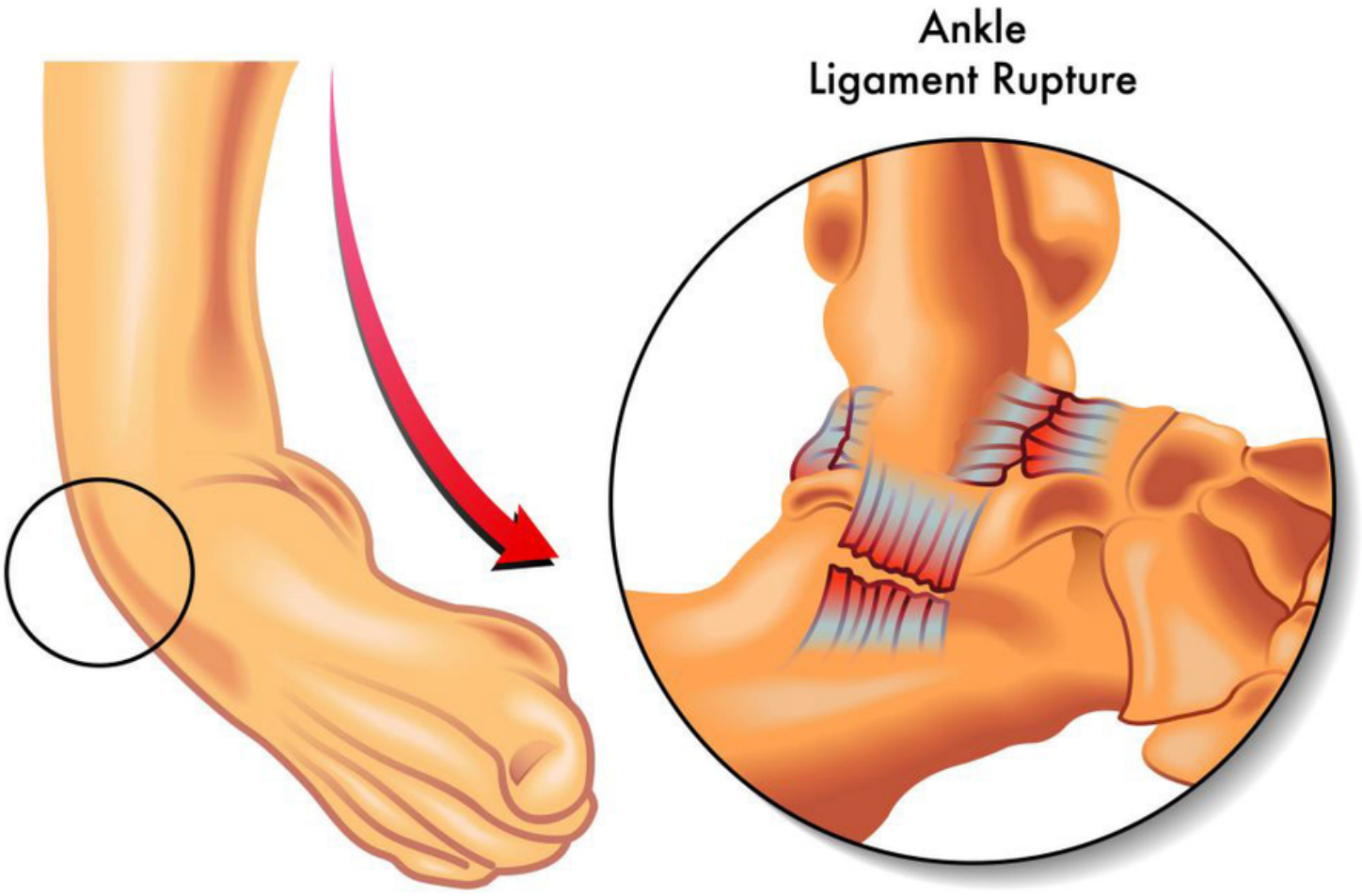
Click for Full Text
(De Ruvo et al. 2022)

JBI 10/11 [90%]



Quality Check
*see appx

This systematic review analyzed the efficacy of manual therapy plus therapeutic exercise for lateral ankle sprains.



KEY FINDINGS

3 studies included; 180 participants

Active ROM

Follow- up favored Manual therapy + Ex for
Dorsiflexion [MD=9.65] Plantarflexion [MD=10.28]

Lower Limb Function

Follow- up favored Manual therapy + Ex for
Function [MD=1.45]

Pain

Follow- up favored Manual therapy + Ex for
Pain [MD=-1.23]

MAIN TAKEAWAYS

Incorporating manual therapy into therapeutic exercise improves short- and long-term function and decreases short- and long-term pain vs. therapeutic exercise alone.

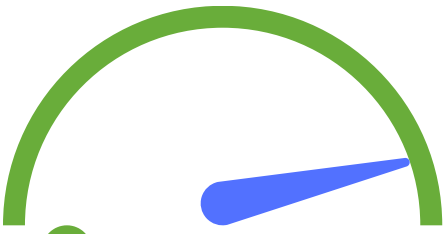
Clinicians should use both treatments as recommended by recent clinical practice guidelines to reduce swelling and pain, improve foot and ankle mobility and normalize walking parameters in patients with lateral ankle sprains.

EXERCISE-BASED REHAB & RE-INJURY RATES FOR LATERAL ANKLE SPRAIN

MAY 2023

Click for Full Text (Wagemans et al. 2022)

JBI 10/11 [90%]



Quality Check
*see appx

This systematic review determined if exercise-based rehab reduced re-injury following acute ankle sprains and if the effectiveness is changed by the exercise's therapeutic quality, content, and volume?

KEY FINDINGS

14 studies were included; 2182 participants

Exercise-Based Rehab & Ankle Sprain Re-injury Rates:

Significant reductions in re-injury prevalence at 12 months, in favor of the exercise-based rehabilitation group vs usual care.

Re-injury incidence showed no significant results.

No statistically significant association between training volume and odds of re-injury.

Patient reported outcomes and clinical outcomes were inconclusive at:
1 month
3–6 months
7–12 months

MAIN TAKEAWAYS

Rehabilitation reduces the risk of recurrent ankle sprain by 40% compared to usual care or doing nothing.

The effect of rehabilitation on other PROMs and clinical outcomes is conflicting.

Exercise interventions were generally well reported but there was no evidence to suggest an optimal rehabilitation protocol or training volume.

ACCURACY OF CLINICAL TESTS ASSESSING ANKLE LIGAMENTS

MAY 2023

Click for Full Text (Netterström-Wedin et al. 2022)

JBI 10/11 [90%]

Quality Check

*see appx

This systematic review determined the diagnostic accuracy of clinical tests assessing the Talocrural and Subtalar joint ligaments after ankle sprain.

Anterior Drawer

- Tests integrity of anterior talofibular ligament

Talar Tilt

- Tests integrity of calcaneofibular ligament

KEY FINDINGS

14 studies included; 6302 observations

No test had both sensitivity and specificity exceeding 90%.

Palpation of Anterior Talofibular Ligament:
Sensitivity [95%-100%]
Specificity [0%-32%]

Calcaneofibular Ligament:
Sensitivity [49%-100%]
Specificity [26%-79%]

Anterior Drawer Test:
Sensitivity [54%]
Specificity [87%]

MAIN TAKEAWAYS

Clinical examination can accurately assess 1 major ligament spanning the ankle joint (anterior talofibular ligament), based on a cluster of palpation and anterior drawer testing.

We found limited and contradicting evidence for clinical injury grading beyond the binary for the ankle joint, and evidence for stress tests of the subtalar ligaments is lacking.

GIVE US YOUR FEEDBACK!

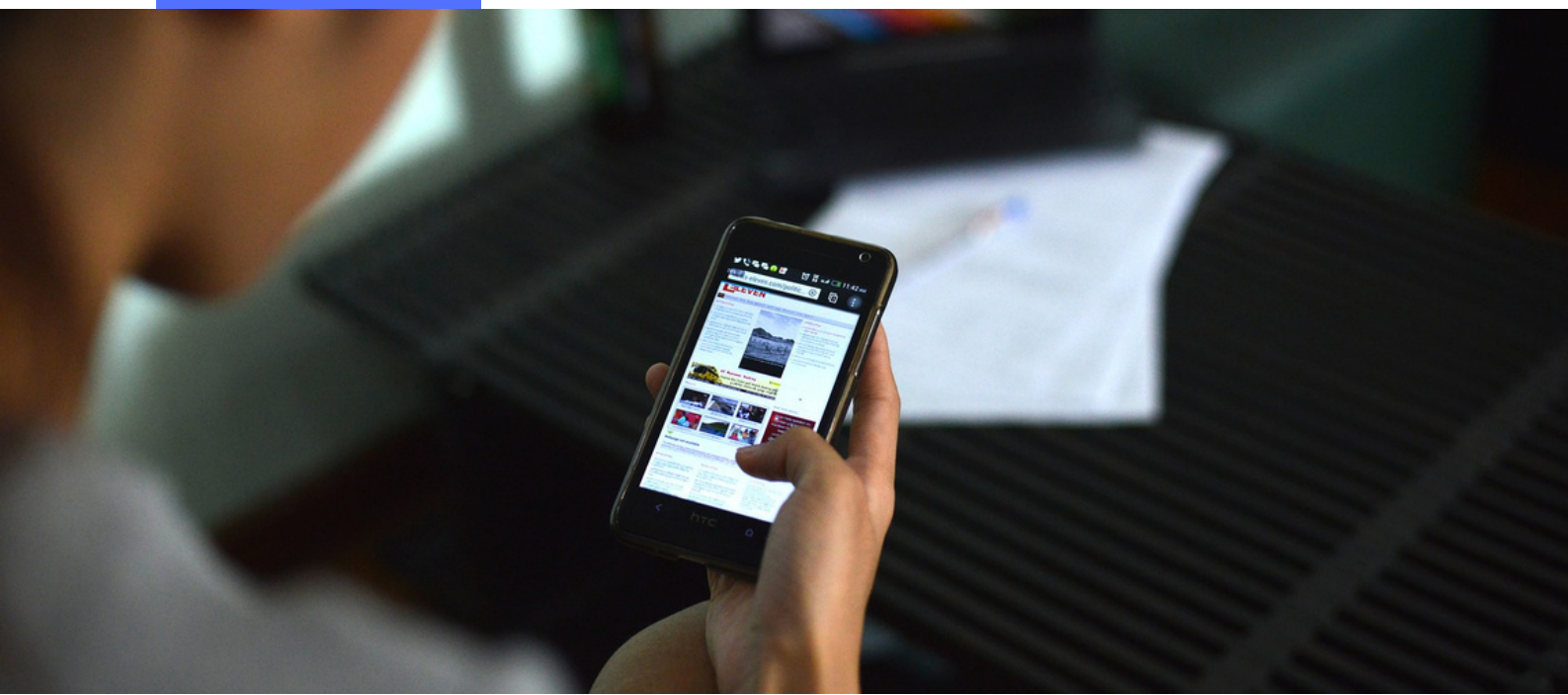
MEMBERS

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 syntheses

Author: De Ruvo et al. Year: 2022

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

Overall appraisal: 10/11 (90%)

LIMITATIONS:

Inadequacy of only the active sports population for generalization.

Lack of a pure control group or placebo.

Presence of attentional bias.

JBI Critical Appraisal Checklist for systematic reviews and research syntheses

Author: Wagemans et al. Year: 2022

		Yes	No	Unclear	Not applicable
1.	Is the review question clearly and explicitly stated?	+	☐	☐	☐
2.	Were the inclusion criteria appropriate for the review question?	+	☐	☐	☐
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11.	Were the specific directives for new research appropriate?	+	☐	☐	☐

Overall appraisal: 10/11 (90%)

LIMITATIONS:

Publication bias cannot be excluded.

Only 5 studies had low risk of bias.

There was little consistency in measurement time points for clinical outcomes.

JBI Critical Appraisal Checklist for systematic reviews and research syntheses

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Overall appraisal: 10/11 (90%)

LIMITATIONS:

Limited trial numbers.

Verification bias was the most frequent, because of either improper time frames between the index and reference test or selective criteria.