RAPID RESEARCH

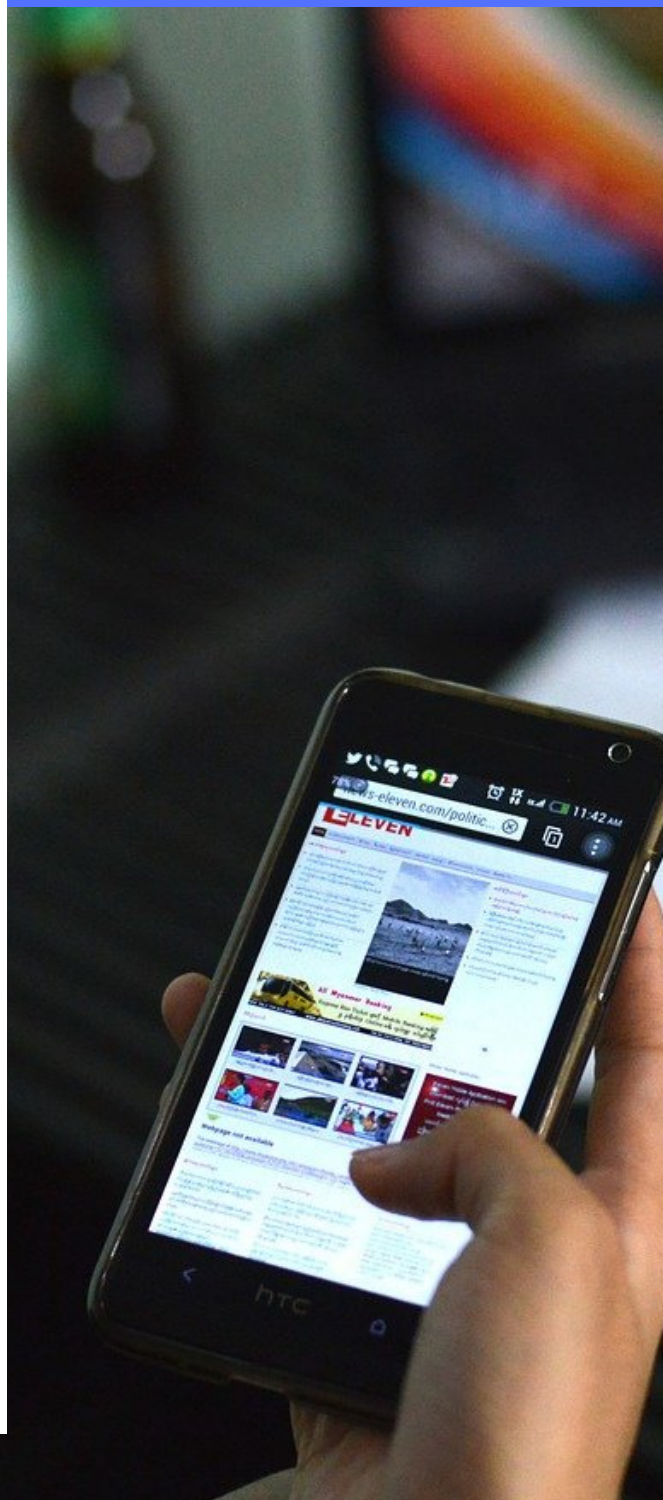
@physicaltherapyresearch

February 2022

Inside This Week:

Ankle Sprains

- Intrinsic Risk Factors for Lateral Ankle Sprains
- Does Proprioceptive Training Help Prevent Ankle Sprains
- Prognostic Factors for Recovery from Lateral Ankle Sprains

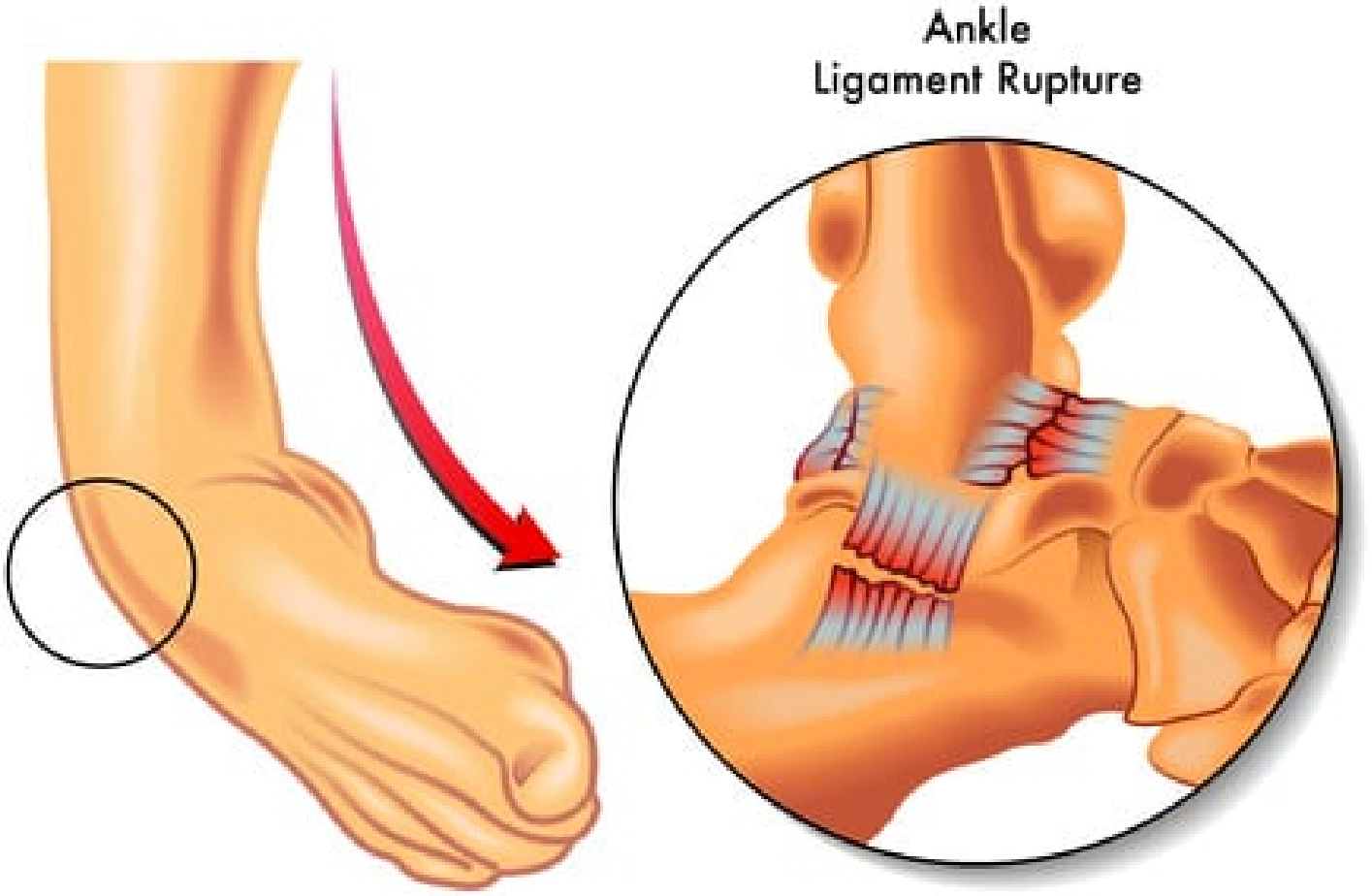


FEBRUARY 2022

INTRINSIC RISK FACTORS FOR LATERAL ANKLE SPRAINS

Click for Full Text (Kobayahsi et al 2016)

This systematic review and meta-analysis identified the intrinsic risk factors for lateral ankle sprains from data in randomized control trials and prospective cohort studies.



KEY FINDINGS

8 Articles Included

Factors correlated with Lateral Ankle Sprains:

- Body Mass Index (BMI)
- Slow eccentric inversion strength
- Fast concentric plantar flexion strength
- Passive inversion joint position sense
- Peroneus Brevis reaction time.

Minimal High Quality Studies

Mostly consisted of younger adults.

MAIN TAKEAWAYS

Significant correlations for the above factors were found for lateral ankle sprains.

Lateral ankle sprain commonly occurs during plantar flexion and inversion with excessive ankle supination.

LAS is therefore associated with decreased ankle eversion strength or delayed ankle eversion muscle reaction time.

However, this review did not support this hypothesis.

FEBRUARY 2022

DOES PROPRIOCEPTIVE TRAINING HELP PREVENT ANKLE SPRAINS?

Click for Full Text (Rivera et al. 2017

This review investigated if proprioceptive training as a sole intervention to decrease the incidence of initial or recurrent ankle sprains in athletic populations.

KEY FINDINGS

7 studies included; 3726 participants.

3 analyses were conducted for proprioceptive training:

1. Prevention of ankle sprains regardless of history
2. Prevention of recurrent ankle sprains
3. Primary preventive measure for those with no ankle sprain history

1) Regardless of a history of ankle sprain:
Reduction in sprain rates (relative risk 65%, # needed to treat -17)
2) History of ankle sprains:
Reduction in repeat ankle sprains (RR 64%, NNT 13)
3) Primary preventive measure:
Significant results (RR 57%, NNT 33)

MAIN TAKEAWAYS

Proprioceptive training reduced a patient's risk of sustaining a first-time or recurrent ankle sprain.

Because the implementation details varied so greatly, specific details/protocols weren't apparent.

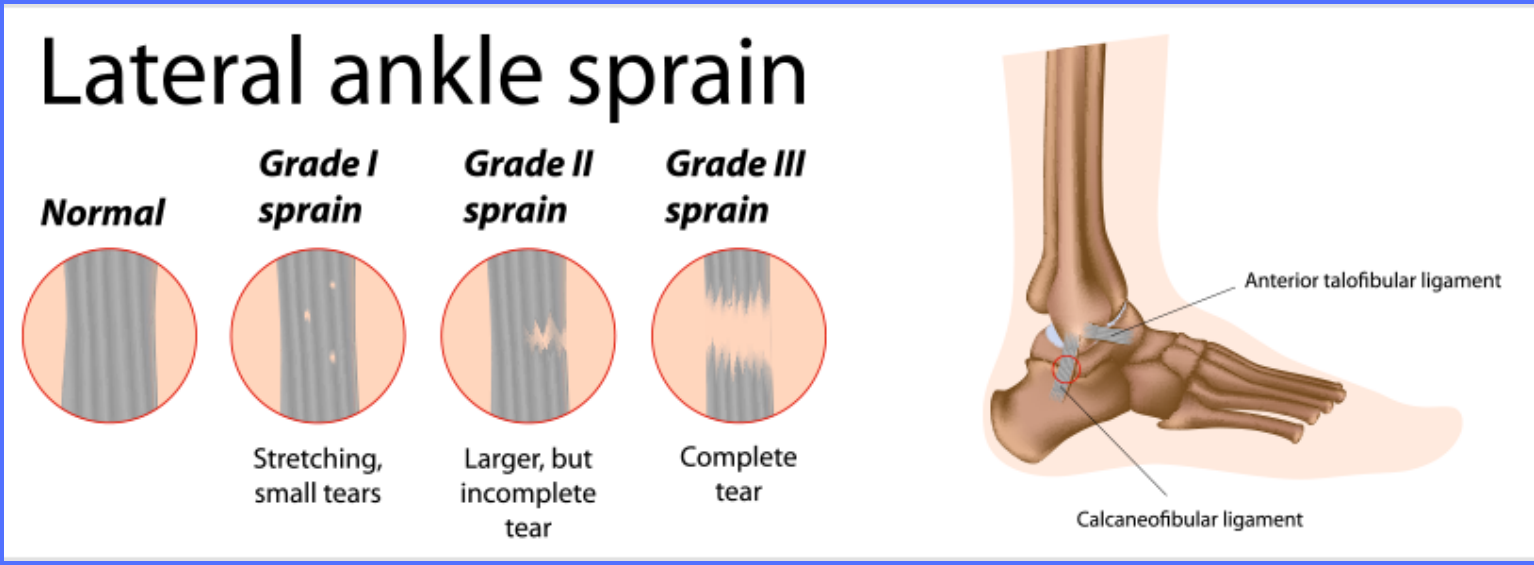
Proprioceptive training is a cost- and time-effective intervention that can benefit patients who have sustained a previous ankle sprain during physical activity and can subsequently reduce the risk of further complications.

FEBRUARY 2022

PROGNOSTIC FACTORS FOR RECOVERY FROM LATERAL ANKLE SPRAINS

Click for Full Text (THompson et al. 2017)

This systematic review identified prognostic factors associated with poor recovery following acute lateral ankle ligament sprain.



KEY FINDINGS

9 Articles Included; 6 Prospective Cohorts, 3 Analyses of RCTs

Baseline prognostic factors for recovery after an acute ankle sprain:

Age
Female gender
Swelling
Restricted range of motion
Limited weight bearing ability
Pain (at Medial joint line & weight-bearing dorsiflexion at 4 wk; Pain at rest at 3 mo)
Higher injury severity rating
Palpation/stress score
Non-inversion mechanism injury
Lower self-reported recovery
Re-sprain within 3 months
MRI determined number of sprained ligaments
Severity and bone bruise were found to be independent predictors of poor recovery.

MAIN TAKEAWAYS

At present, associations between baseline prognostic factors and recovery exist, however are inconsistent.

Age seems to be an independent prognostic factor identified in 3 studies with consistent evidence for predicting recovery in patients with acute ankle sprain.

There is still some lack of clarity on the underlying mechanisms of recovery after an ankle sprain.

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