RAPID RESEARCH

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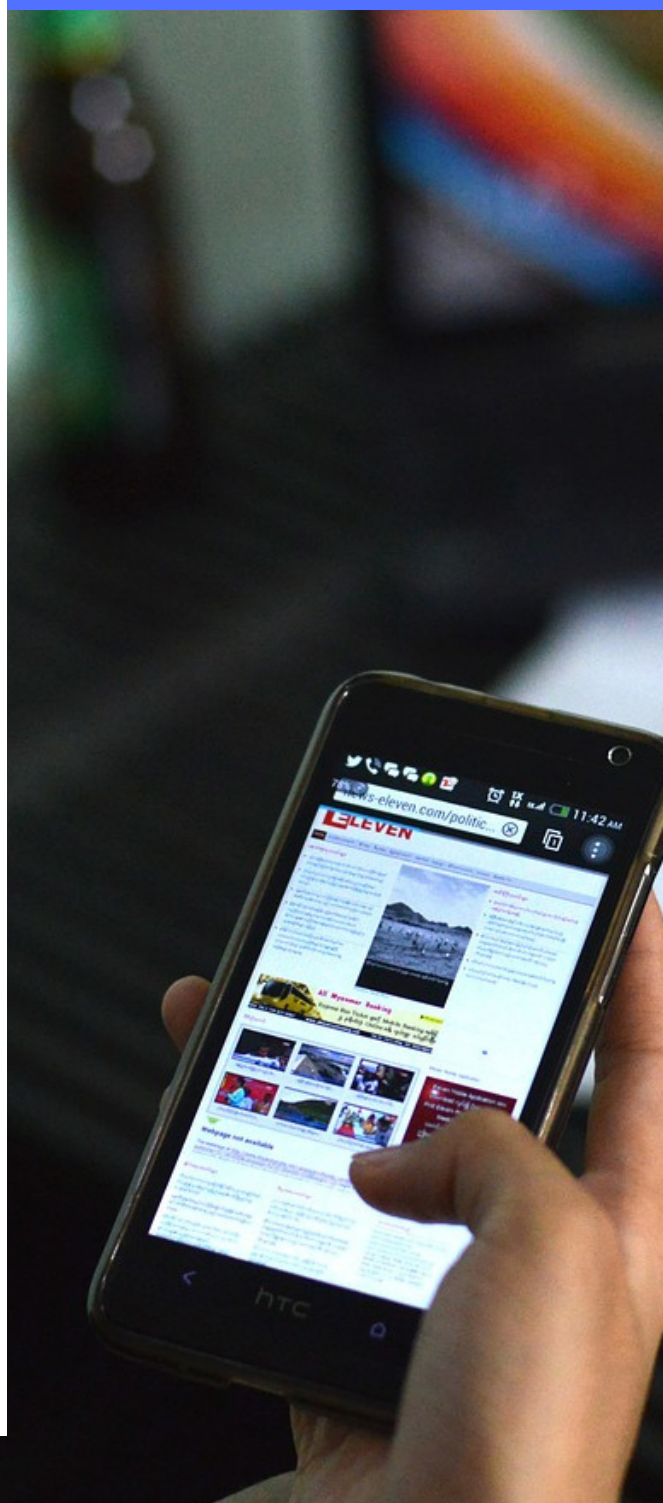
January 2021

Inside This Week: Fix Your Feet

✓ Improve Balance by Strengthening Toe Flexors

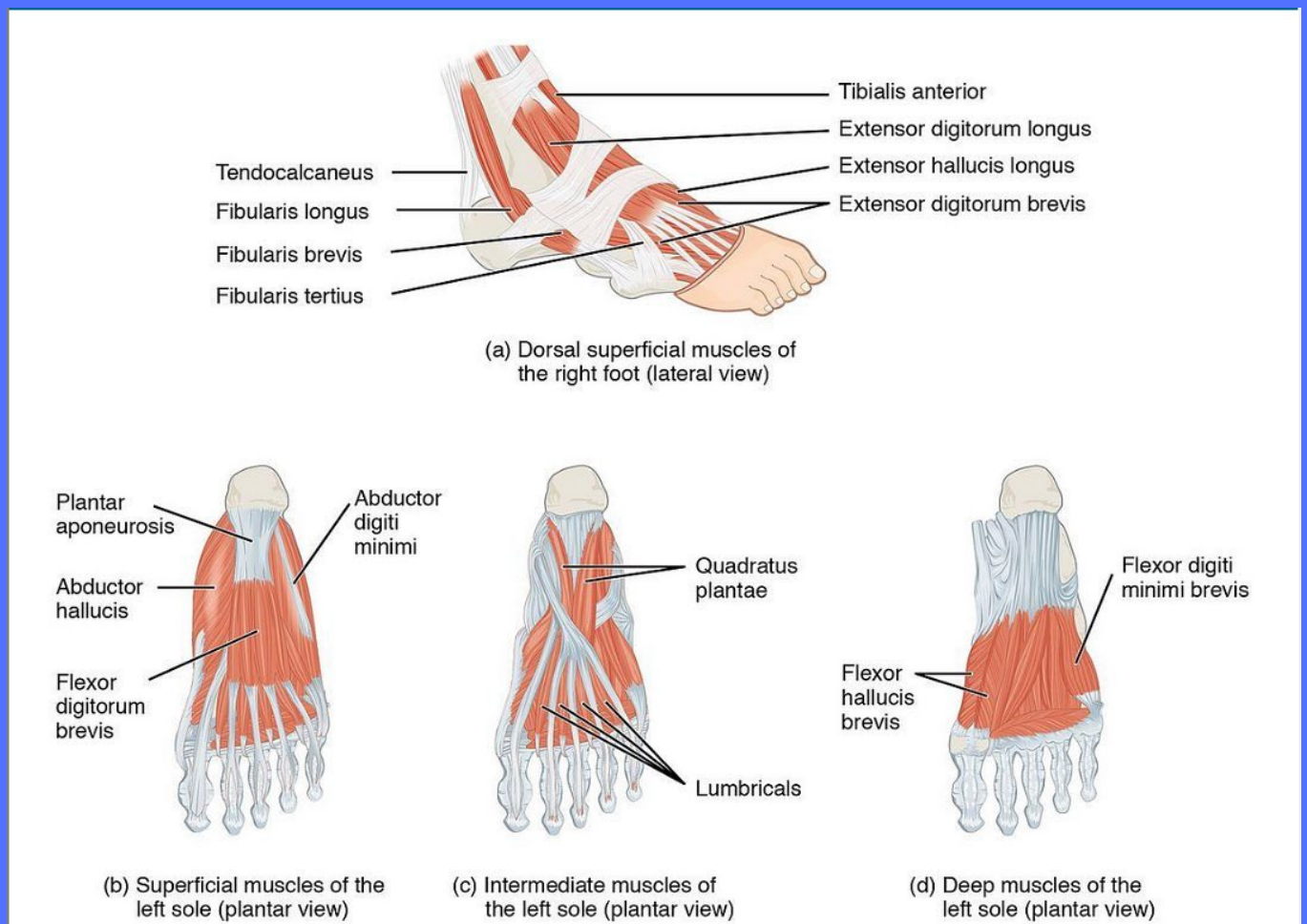
✓ Flat Feet, Short Foot Exercise to help navicular drop (Over-Pronation)

✓ 9 Risk Factors for Achilles Tendon Pathology



IMPROVE BALANCE BY STRENGTHENING TOE FLEXORS

This review looked at the contribution of toe flexor strength to static and dynamic balance. Which, enables targeted strengthening programs to improve balance.



KEY FINDINGS

9 studies with over 2200 participants met inclusion criteria.

In each study, participants were over sixty years of age, and over 73 % of them were female.

All studies showed:
Direct, proportional, and significant correlations between toe flexor strength and postural balance.

MAIN TAKEAWAYS

Toe flexor strength contributes to improved postural balance for people over the age of 60.

This is likely true across a wider range of age, however more research is required in younger populations.

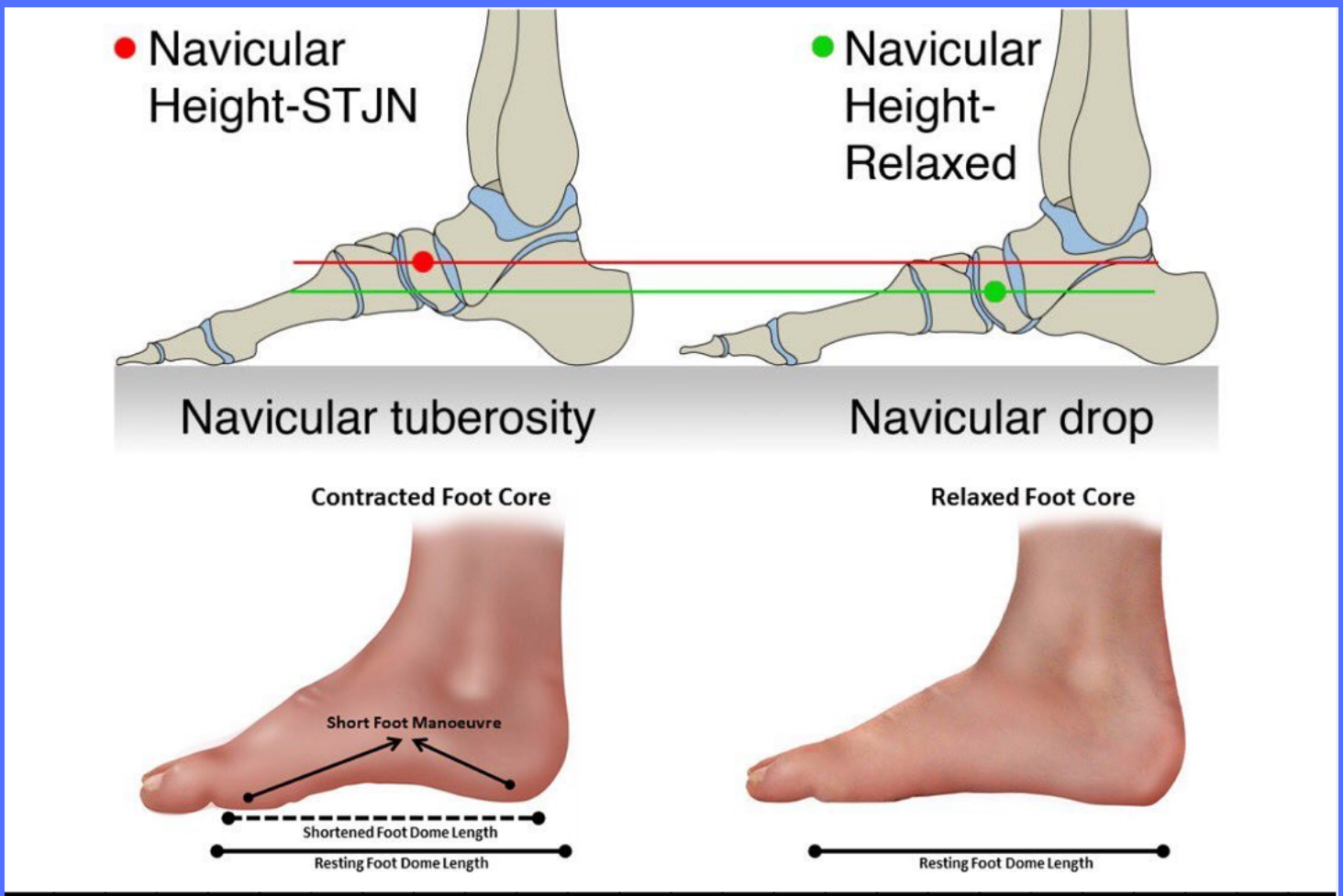
Including specific Toe Flexor Exercises into workouts can have a positive effect on both static and dynamic balance.

Foot Exercises to Try

JANUARY 2021

EFFECTS OF SHORT FOOT EXERCISE ON NAVICULAR DROP

Deformation of the arch, as measured by navicular drop (ND), is linked to lower limb injuries. This articles investigates if the 'short foot exercise' is effective to strengthen the intrinsic foot muscles that support the arch.



KEY FINDINGS

3 studies were found to examine the use of the SFE on navicular drop.

1.
Short Foot Exercise vs. Towel-curl exercise vs. Control group.
- No significant differences between the 3 groups were found.

2. Short Foot Exercise vs. Use of arch support insoles.
- Significant improvement in the Short Foot Exercise group was found.

3. 4 Weeks of Short Foot Exercise program, without control group.
- Significant decrease in Navicular Drop without a regression at an 8-week follow-up.

Overall, 2/3 studies reported a significant reduction in navicular drop following short foot exercise interventions.

MAIN TAKEAWAYS

Preliminary data supports the use of the Short Foot Exercises to decrease Navicular Drop.

Particularly in individuals with a flexible flatfoot.

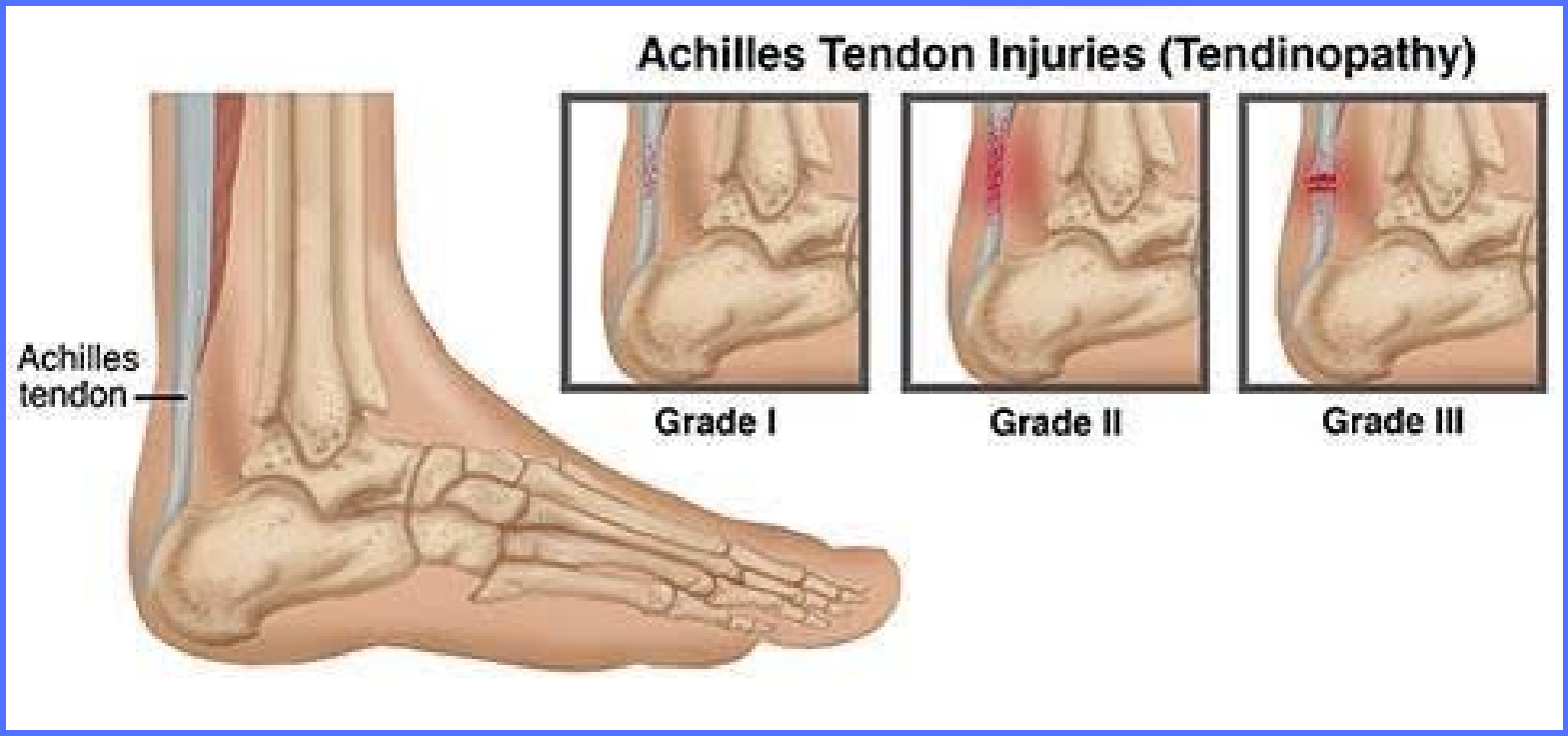
However, issues with the study designs make it difficult to interpret the data completely.

STRENGTH OF RECOMMENDATIONS:
Limited Grade B evidence supports the use of the Short Foot Exercise to decrease navicular drop (Flat Foot).

JANUARY 2021

9 RISK FACTORS FOR ACHILLES TENDINOPATHY

Achilles tendinopathy is a common problem, but its exact etiology remains unclear. This review evaluated the association between potential clinical risk factors and Achilles tendinopathy.



KEY FINDINGS

There is a lack of high-quality studies explaining risk factors for Achilles tendinopathy.

However, of the studies with a risk of bias, 9 risk factors were identified:
1. Prior lower limb tendinopathy or fracture.
2. Use of ofloxacin antibiotics
3. Increased time between heart transplantation and initiation of quinolone treatment for infectious disease
4. Moderate alcohol use
5. Training during cold weather
6. Decreased isokinetic plantar flexor strength
7. Decreased forward propulsion movement when walking
8. Lateral rollover at forefoot flat phase
9. Creatinine clearance of <60 mL/min in heart transplant patients.

MAIN TAKEAWAYS

9 clinical factors were identified, which increase a person's risk of Achilles tendinopathy.

When treating Achilles Tendinopathy, Ofloxacin use, alcohol consumption and a reduced plantar flexor strength are modifiable risk factors.

HEADS UP!

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