

Shin Splints and Achilles Tendinopathy in Runners

Biomechanical Factors Associated With Achilles Tendinopathy and Medial Tibial Stress Syndrome in Runners

Becker et al. 2017 [🔗](#)



STUDY

- 42 runners
- 13 with Achilles tendinopathy
- 8 with shin splints
- 21 uninjured
- Researchers analysed their standing posture, flexibility and running biomechanics

FINDINGS

- Pronation lasted longer among the injured runners who showed more *eversion at heel-off* (6° vs 0°)
- Injured runners had more tibia varus in standing position (8.7° vs 6.8°)
- Injured runners had less dorsiflexion flexibility (6.1° vs 11.2°)



CRITIQUE

Strengths

- One of the first studies looking at the duration of pronation rather than the amount or speed of pronation

Weaknesses

- Retrospective - runners were already injured so these biomechanical features could be an 'effect' rather than a cause
- Runners wore their own shoes, this could have influenced the running biomechanics

KEY TAKEAWAYS

Clinicians

- Look for any *eversion at heel-off* in runners with Achilles tendinopathy or shins splints

Runners

- A longer duration of pronation may be something that contributes to, or results from, Achilles tendinopathy or shin splints

