



Musculoskeletal

Late stage ROM deficits in ankle sprain rehabilitation

Have athletes in the end stages of rehabilitation after ankle sprain recovered their ROM?

Author : José Pedro Correia

Expert : José Pedro Correia

Athletes starting on-field rehabilitation had ROM deficits in all four directions, with effect sizes ranging from trivial (for eversion) to large (for plantar flexion) in comparison with the non-injured leg.

These findings show that plantar flexion deficits should also be addressed when managing ankle sprains.

The newly-developed device for the measurement of weightbearing ankle range of motion (ROM) had clinically useful reliability.

Ankle sprains are one of the most common traumatic injuries across a variety of sports. It is estimated that 70% of the general population suffers an ankle sprain during their lifetime.

These injuries may have long-term repercussions and restoring ROM is a crucial part of the rehabilitation process. Regarding this aspect, the loss in dorsiflexion after an ankle sprain has been the focus of multiple studies.

Weight-bearing dorsiflexion, plantar flexion, eversion and inversion ROM was measured in 87 male athletes undergoing late-stage ankle sprain rehabilitation and 25 healthy athletes.

Reliability and minimum detectable change were determined for each ROM measurement.

Differences between the injured and non-injured leg were found in all four directions, with varying effect sizes: large (0.80) for plantar flexion, medium for dorsiflexion (0.57), small for inversion (0.36), and trivial for eversion (0.15).

This measurement method showed that athletes at late-stage rehabilitation still have significant deficits in ankle ROM.



Expert opinion

Given the late stage at which these measurements were performed in an athletic population, it is surprising to still see ROM deficits at the point of starting on-field rehabilitation - and even more so to see that plantar flexion was the most affected movement, since more attention is usually paid to dorsiflexion deficits (given their functional repercussions).

Nevertheless, this study shows that athletes in the final stages of ankle sprain rehabilitation may be less ready than previously determined by other ankle ROM measurement methods.

> From: Abassi et al., *Phys Ther Sport* 38 (2019) 30-35 (Epub ahead of print). All rights reserved to Elsevier Ltd.

[Click here for the online summary.](#)

Sign up on our website and get access to the latest evidence based articles reviewed and explained by our experts.

Visit www.anatomy-physiotherapy.com

Anatomy & Physiotherapy works with international renown experts and writers to provide a current and evidence-based content service to students, physiotherapist, musculoskeletal health professionals and educational institutes around the world in 5 key thematic areas and 7 different languages.

The best summaries to help you to improve your care. Easy and accessible.



Musculoskeletal



Aging & Chronic
Diseases



Women's Health



Lifestyle &
Prevention



Psychosomatic