Comparison of the effect of foot orthoses on Star Excursion Balance Test performance in patients with chronic ankle instability

SCIENCE

Abstracts

Key Take-Away:

The ankle sprain is considered as the frequently occurred injuries that lead to chronic ankle instability and impairments like altered balance. The management of such types of sprain can be effectively done using foot orthoses, and this study highlights the performance of new custom-molded foot orthoses with textured surfaces in handling chronic ankle instability.

Introduction:

Chronic ankle instability as a common outcome of ankle sprain leads to numerous impairments such as postural and balance control deficits. Foot orthoses are the frequently used approach for chronic ankle instability recovery. The study directed to estimate the impact of custom-molded foot orthoses with textured surfaces on the chronic ankle instability patients' dynamic balance and to compare their outcomes with different types of foot orthoses.

Methods:

Based on the guideline issued by the International Ankle Consortium, 30 patients were selected. Star Excursion Balance Test was used to measure the impact of prefabricated, custom-molded, and custom-molded with textured surface foot orthoses. For statistical analysis, the normalised reach distances in medial, anteromedial, and posteromedial directions of the test were estimated.

Results:

Foot orthoses extended the reach distances compared to the no-orthosis situations in all three directions. As compared to custom-molded foot orthosis ($p < 0.01$) in medial and posteromedial directions and prefabricated foot orthosis ($p = 0.001$) in all measured directions, custom-molded with textured surface foot orthosis showed the remarkable diversity.

Conclusion:

Foot orthoses extend the reach distances in chronic ankle instability patients. Custom-molded with textured surface foot orthosis exhibited higher pronounced effect than other foot orthoses.

Source:	Prosthet Orthot Int
Link to the source:	https://www.ncbi.nlm.nih.gov/pubmed/30101681
Original title of article:	Comparison of the effect of foot orthoses on Star Excursion Balance Test performance in patients with chronic ankle instability.

Authors:	Faezeh Abbasi et al.

Therapeutic, Ankle Sprain, Ankle, Efficacy