

Effect of foot orthoses contour on pain perception in individuals with patellofemoral pain.

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Source

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Abstract

BACKGROUND:

Foot orthoses have been described as a possible intervention for individuals with patellofemoral joint pain. No study has attempted to quantify the perceived comfort and support of foot orthoses when used as an intervention for patellofemoral joint pain.

METHODS:

A randomized case-control trial with crossover between contoured and flat orthoses was conducted on ten individuals with patellofemoral pain and ten healthy participants. All of the participants completed a comfort-support assessment and had in-shoe plantar pressure data collected before and after 3 weeks of wear. A 1-week washout period was used to minimize any continued treatment effect between orthotics testing. The patellofemoral pain group also completed a numeric rating scale to assess pain reduction after using each orthosis.

RESULTS:

All of the participants perceived that greater support was provided by the contoured orthoses in the heel and arch regions. Even with a 30% difference in material hardness between the two orthoses, all of the participants rated cushioning as equivalent. Six individuals in the patellofemoral pain group reported a clinically significant reduction in knee pain as a result of wearing foot orthoses.

CONCLUSIONS:

A key factor in the selection of contoured foot orthoses versus flat inserts is the amount of support that an individual perceives in the arch and heel regions. In addition, clinicians using foot orthoses as an intervention for patellofemoral pain should expect an individualistic, nonsystematic response.

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