

FOOT ORTHOSES FOR PATELLOFEMORAL PAIN IN ADULTS

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ABSTRACT

Background

Foot orthoses, which are specially moulded devices fitted into footwear, are one of the treatment options for patellofemoral or anterior knee pain.

Objective

To assess the effects of foot orthoses for managing patellofemoral pain in adults.

Criteria for considering studies for this review

We searched the Cochrane Bone, Joint and Muscle Trauma Group's Specialised Register (March 2010), the Cochrane Central Register of Controlled Trials (The Cochrane Library 2010, Issue 1), MEDLINE (1950 to March 2010), EMBASE (1980 to 2010 Week 11), CINAHL (1937 to March 2010), trial registers, reference lists and grey literature. No language restriction was applied.

Selection criteria

We included randomised or quasi-randomised clinical studies that compared foot orthoses with flat insoles or another physical therapy intervention. The primary outcomes were knee pain and knee function.

Data collection and analysis

Two authors independently selected eligible trials, assessed methodological quality and performed data extraction. We calculated risk ratios and 95% confidence intervals for dichotomous variables, and mean differences with 95% confidence intervals for continuous variables. We pooled data using the fixed-effect model.

Main results

Two trials with a total of 210 participants were included. Both trials were at some risk of performance bias. One trial had four intervention groups and the other had three. One trial found that foot orthoses when compared with flat insoles (control group) had better results at six weeks in knee pain (participants with global improvement: risk ratio 1.48, 95% confidence interval 1.11 to 1.99), but not at one year follow-up. Participants in the orthoses group reported significantly more minor adverse effects (e.g. rubbing, blistering) compared with the flat insole group (risk ratio 1.87, 95% confidence interval 1.21 to 2.91). Both trials in their comparisons of orthoses plus physiotherapy versus physiotherapy alone found no statistically significant differences between the two intervention groups in knee pain or function. Results for knee pain outcomes did not show significant differences between foot orthoses versus physiotherapy. Although participants in the physiotherapy group had consistently better results for the functional index questionnaire, the clinical relevance of these results is uncertain.

Authors' conclusions

While not robust, the available evidence does not reveal any clear advantage of foot orthoses over simple insoles or physiotherapy for patellofemoral pain. While foot orthoses may help relieve knee pain over the short term, the benefit may be marginal. Patients treated with orthoses are more likely to complain of mild adverse effects and discomfort.
