

Reviewer's report

Title: Contoured, prefabricated foot orthoses demonstrate comparable mechanical properties to custom-made orthoses.

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Reviewer: Alan Bryant

Reviewer's report:

The research project comparing the in-shoe plantar pressure differences between custom designed and contoured prefabricated polypropylene orthoses in 15 subjects demonstrates little differences between the two types of orthoses for most variables tested. The authors should be commended on the research as it was well designed, conducted and reported. However, the reader must be cautious in interpreting the results too broadly. Firstly, the number of subjects tested was relatively small and an expanded trial would be welcomed. Secondly, the prefabricated orthoses used in the research were made from identical material to the custom devices, and in effect the research was comparing the effects of the differences in topographical shape and rearfoot varus posting of the two devices. Accordingly, the minimal plantar pressure differences are not surprising. I think it is fair to say that in Australia and New Zealand, while commonly prescribed custom orthoses are usually made with a polypropylene shell, prefabricated devices are more commonly composed of various densities of EVA or similar material. It would be good to see a similar study comparing these type of devices with custom made polypropylene orthoses. Thirdly, and perhaps most importantly, as the authors correctly point out, this research has not attempted to investigate the longer term patient acceptance and/or therapeutic effects of the two devices tested.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I have no competing interests