Reviewer's report

Title: Static foot assessments do not predict medial longitudinal arch motion during running

Version: 2 Date: 28 July 2015

Reviewer: Trevor D Prior

Reviewer's report:

I feel the authors have improved the paper following review although it would have been helpful to have a clear indication of the changes they had made in response to each question raised. My main comments below, relate to points raised in the original review. Had the authors responded to each point directly, they would have been able to explain why they had not made any specific changes.

I feel further work is required before this paper is suitable for publication.

Major compulsory revisions

1. It is commonly accepted that static measures have a generally poor role in predicting dynamic function. However, when used, this is generally to estimate a given position during gait or to classify a given foot type. The authors have not answered the question as to how a single static measure can predict a range of motion.

2. Given that these has a fairly high predictive value for discrete points during stance, is it not possible that a quasi-static measure which assesses motion may add to the predictive value?

This was a point I raised in my original review but other than suggesting this be considered for frontal and transverse plane motion for future studies, has not been discussed. Why would this not be suitable for sagittal plane motion?

3. By only assessing the MLAA dynamically, the authors have only used one aspect of foot function. The relevance of this to overall function, injury prediction, footwear advice and orthotic management is by no means clear. Given the limitations they have acknowledged in the paper, their results do not justify the statement made on lines 231-234. How do their results demonstrate that dynamic measures may be better for recommending footwear or orthotic interventions? There results show that selected static measures have limitations when trying to predict dynamic function – nothing more or less.

4. In my original review, I also indicated that the authors should consider acknowledging that greater numbers should be evaluated to ensure that the offset method they used to justify the use of a lateral malleolar marker was valid. There is no reference to this and, in the absence of a response to this point,
needs to be considered again.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests