Reviewer’s report

Title: Increase in body weight over a two-year period is associated with an increase in midfoot pressure and foot pain

Version: 0 Date: 30 May 2017

Reviewer: Ian Mathieson

Reviewer's report:

This is an interesting article. I applaud the effort to elucidate the temporal relationship between the increase in bodyweight and midfoot pressure and pain. Work focusing on the immediate effect of simulated weight increases offer only a superficial insight, and this study is valuable in that it offers the opportunity of more valid information. Similarly, appropriate outcome measures were selected which also strengthens the study.

I have a few comments that I would like the author team to consider:

1. Please comment on the potential significance of the sex distribution of the participants.

2. Background, Line 23. Can you provide information on other mechanisms by which increased bodyweight might result in pain as this would provide useful context.

3. Background, 2nd paragraph. Similar to point 2, some information on other factors that might result in midfoot changes may be a useful inclusion.

4. Please provide the dates and settings of data collection.

5. Please explain the conceptualisation of the study in terms of the anticipated weight gain in the group over the two year period.

6. I can't find information on the follow up time - this would be a useful inclusion.

7. For the demographic data you provide standard deviations as measure of the spread of scores. For the plantar pressure data you provide the 95% CI of the difference. Is there any reason that you did not provide 95% CI's for the demographic data? I find this measure of spread more informative.

8. Do you have any data on foot posture? It might be interesting to determine if there is a clinical change in foot posture associated with the changes in pressure.

Best wishes
**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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