Reviewer's report

**Title:** Physical activity as a predictor for chronic musculoskeletal complaints 11 years later. Results from the Nord-Trondelag Health Study

**Version:** 1  **Date:** 24 July 2008

**Reviewer:** Jan Hartvigsen

**Reviewer's report:**

This is a good paper, well written and to the point. The data are overall good and the variables well defined and constructed based on validated methods. The methods of analysis are quite simple but well chosen, and the conclusions are supported by the data. I do however not think that the authors have exploited all possibilities for analysis in this dataset and the paper can be improved.

I therefore have a few points for the authors to consider, mainly in relation to the analysis and the reporting of the results which could be clearer.

**Abstract:** In the methods, please state what you adjusted for. In the conclusion, please paste in the last sentence from the conclusion section of the paper.

**Background:** I think this background is too short. MSCs have convincingly been shown to be associated with a long list of co-morbidities and thus with overall poor health – just like physical inactivity. Therefore it is hardly surprising that chronic MSCs are associated with increased mortality. I think you should elaborate a little on this issue. MSCs can in my opinion be tied closely to other major public health problems and possibly be prevented using similar strategies.

**Methods:** Overall a very good and clear methods section. I realize that you do not have information on MSCs at baseline, but what about physical activity at follow-up? How many of the participants have changed groups and is this change associated with MSCs at follow-up? Such information could give us an indication of whether physical inactivity is indeed a risk factor for MSCs or whether it is the MSCs that cause the inactivity. Regarding the statistics section, please state clearly why you chose to adjust for these confounders. It is not clear to me what the decision process was. Finally, please supplement each regression model included in Table 3 with a Wald test. That will give us an indication of the explanatory power.

**Results:** This section is a little difficult to read. Please make it very clear that you are dealing with one main group (chronic MSCs) and two subgroups (widespread and non-widespread). This should also be clear from Table 3, probably could be indicated in the legend. In the analysis, you have chosen to report men and women together and adjust for gender. This must be because there were no major differences between the two. I believe you should give a few examples of that – and remember to report both % and OR for both men and women and not just OR for women (second paragraph page 7).
Discussion: Quite good, however you fail to discuss the long time between exposure and follow-up. What could be the implications of this? Further, if you chose to perform the analysis of physical activity over time, this will likely give good material for the discussion section.

References: reference 2: Please state data accessed.

Table 3: See comment above.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests