

February 24, 2014

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: WJO Manuscript_8559-Revised.doc).

Title: Muscle force and movement variability before and after TKA: a review

Authors: Jessica W. Smith, Jesse C. Christensen, Robin L. Marcus, Paul C. LaStayo

Name of Journal: *World Journal of Orthopedics*

ESPS Manuscript NO: 8559

The manuscript has been improved according to the suggestions of reviewers:

A total of 16 revisions have been made according to the suggestions of the reviewers, which are outlined below

- (1) Page 1, the manuscript title was changed from: **Muscle force and movement variability before and after total knee arthroplasty: a review** to **Muscle force and movement variability TKA: a review**;
- (2) Page 1, the running title was changed from: **Movement variability before and after total knee arthroplasty** to **Movement variability before and after TKA**;
- (3) Page 2, the names and addresses for the additional authors were removed. Only the contact information for the corresponding author is included.
- (4) The credentials for the author Jessica Smith were revised to include "PhD", and the credentials for the author, Jesse Christensen were revised to include "PT, DPT".
- (5) Page 4, the Core Tip was included within the manuscript per the reviewer comment.
- (6) Page 7, the reviewer included headings with highlights as follows "**INTRODUCTION, METHODS, RESULTS, CONCLUSIONS**". We assume this was included to imply that these headings should be used in the manuscript. However, we specifically did not use this format, as this is a topic highlight article, which does not follow the format noted. In fact, based on the examples provided, the "Introduction" heading was removed, but there is a "Discussion" and "Conclusions" section, which were felt to be appropriate.
- (7) Page 9, the reviewer highlighted text to indicate the preference of including the specific ligamentous structures that are disrupted during total knee arthroplasty (TKA) surgery. A couple minor edits were made, as well as the inclusion of the recommendation by the reviewer to note the removal of the anterior cruciate and/or posterior cruciate ligaments that occurs during TKA.
- (8) Page 11, Table 1, the reviewer highlighted some of the text, but there are no specific comments indicating the reason for the highlights. Therefore, no changes were made.
- (9) Page 16, the reviewer included a question regarding the influence of type of prosthesis, and rehabilitation on the results of the study. In response, the following sentence was added to the manuscript. "In this study, subjects were examined within one month prior to surgery and at

6-months post-operatively and were not stratified by ligament retention status or type and extent of post-operative rehabilitation.” Also, in response to the reviewer’s question, the following response is noted: Of note, due to small number of subjects in the cited study, it precluded the ability to make definitive conclusions or inferences regarding differences in the results based on type of prosthesis.

- (10) Page 17, the reviewer highlighted the subheading “Movement Variability”, although no comment was included. Therefore, no specific changes were made.
- (11) Page 18-20, Table 2, the reviewer highlighted some of the text, but there are no specific comments indicating the reason for the highlights. A few typographical revisions were made, but otherwise, no changes were made to the text.
- (12) Page 21, the reviewer requested clarification regarding whether the results of the study by Brach et al. (2008). In response, the text was revised to include specific reference to stance time variability (STV).
- (13) Pages 23-24, the reviewer highlighted the headings “Discussion” and “Conclusions”, although there were no specific comments. Therefore, no specific changes were made.
- (14) In Tables 1 and 2, the reviewer highlighted the subheadings, but did not provide an explanation for the highlighted text. Therefore, we assumed the reviewer was requesting more informative subheadings, and as a result, the subheadings were changed as follows:
 - a. *Healthy Older Adults* was changed to *Older Adults with Native Non-arthritis Knees*;
 - b. *Knee OA* was changed to *Older Adults with Osteoarthritic Knees*; and
 - c. *Total Knee Arthroplasty* was changed to *Older Adults following Total Knee Arthroplasty*.
- (15) Minor formatting changes were made throughout to make the text more clear and concise, to correct minor grammatical errors, and avoid duplication of text; and
- (16) All references were also revised to include the PMID and doi per the reviewer comments. Of note, not all references had an associated doi associated with them, and therefore, in these cases, the doi was not included. This was confirmed using the crossref web tool for identifying the doi for specific articles.

We appreciate the opportunity to publish our manuscript in the *World Journal of Orthopedics*.

Sincerely yours,



Jessica W. Smith, PhD
Department of Bioengineering
Department of Physical Therapy
University of Utah
Salt Lake City, UT 84108-1290
United States of America
Fax: 801-606-7441

Email: j.smith@utah.edu