

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 27811

**Title:** Abnormal ground reaction forces lead to a general decline in gait speed in knee osteoarthritis patients

**Reviewer's code:** 02690875

**Reviewer's country:** Thailand

**Science editor:** Xue-Mei Gong

**Date sent for review:** 2016-06-17 16:39

**Date reviewed:** 2016-06-26 01:10

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> Plagiarism	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

Please correct or answer according to the 'Comments' in the 'Track changes' under the 'Review' Menu of the file attached below.

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**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 27811

**Title:** Abnormal ground reaction forces lead to a general decline in gait speed in knee osteoarthritis patients

**Reviewer's code:** 03069318

**Reviewer's country:** United States

**Science editor:** Xue-Mei Gong

**Date sent for review:** 2016-06-17 16:39

**Date reviewed:** 2016-07-10 04:40

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ Y ] Grade A: Excellent	[ Y ] Grade A: Priority publishing	Google Search:	[ Y ] Accept
[ ] Grade B: Very good	[ ] Grade B: Minor language polishing	[ ] The same title	[ ] High priority for publication
[ ] Grade C: Good	[ ] Grade C: A great deal of language polishing	[ ] Duplicate publication	[ ] Rejection
[ ] Grade D: Fair	[ ] Grade D: Rejected	[ Y ] No	[ ] Minor revision
[ ] Grade E: Poor		BPG Search:	[ ] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[ Y ] No	

## COMMENTS TO AUTHORS

This is an interesting paper that aims to evaluate the gait patterns in OA patients at top walking speed. This is a well-designed and organized study that uses validated measurements and produces some important findings. The methodology used is appropriate and well presented. One of the disadvantages of this work is the difference between the two groups regarding age, weight, and leg length the selection of the control group being healthy individuals walking at both top and preferred speed. It may be useful to also have the same OA patients walking at preferred speed as an internal control. Abstract. Please change the order of the BMI for OA and controls. Also, the authors should clarify what 18% and 12% mean. Introduction It would be useful if there is literature support for the fact that asymmetry can lead to falls, injury etc. Methods Participants It would be useful to evaluate the grade of OA, since evidence suggests that there may be differences between early and late OA. How leg length difference may affect the results? Gait analysis and data collection Well described and supported from previous work. For symmetry ratios it might be useful to provide an estimate for the range of values that would be considered as symmetric/asymmetric.

The authors could add a group where the OA patients would be tested at the preferred walking speed. The advantages and disadvantages of using this approach could be mentioned at the last paragraph. Results For Kellgren/Lawrence grading it would be useful to have the number of patients in each grade (since the mean is 2.5 and most patients had a grade of 2). The results are rather short. Preferably, the authors could be more explanatory in their results (or in the discussion) on what these findings represent and what these results suggest. Se also comment below. In table 2, it would be useful to include the data for the preferred walking speed for the OA group. I agree that the comparison to the unaffected extremity can provide valuable information, but the inclusion of these data would be equally useful to make additional comparisons and make useful potential suggestions. For example some of the assumptions for the preferred walking speed could be tested. It would be interesting to see whether the lower push-off force and impulse would persist at preferred walking speed. Discussion At the third paragraph of the discussion, the comparison between weight acceptance impulse is made between the OA at TWS and controls at PWS. If someone compares TWS in both populations, weight acceptance is higher in controls. In addition to the discussion made (which is reasonable and well presented) a comment on what this difference may suggest would be useful. In the discussion, there is room for the authors to make suggestions and comment in an attempt to explain some of their findings. For example, the authors found weight acceptance, total impulse, and weight acceptance impulse being statistical significant in table 3. This is slightly different statistically compared to the traditional methods as described in table 2. It would be extremely helpful to have a comment and some thoughts from the authors on the implications of these findings. Overall, the authors could consider being slight more explanatory for some terms and methodology used, taking into consideration that the audience of the journal may not have in depth knowledge about specific terms and methods used in gait analysis. At the limitations, the authors could add a short description on the implications that age and leg length difference may have in the interpretation of their findings. Conclusions Well-presented. The authors may consider having only the conclusions that were directly withdrawn from the results of this work in this section. Tables Adequate. In table 2, the authors could consider making the statistical significances more obvious. Figures Well-resented

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**Name of journal:** World Journal of Orthopedics

**ESPS manuscript NO:** 27811

**Title:** Abnormal ground reaction forces lead to a general decline in gait speed in knee osteoarthritis patients

**Reviewer's code:** 02586683

**Reviewer's country:** India

**Science editor:** Xue-Mei Gong

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
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		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

ood basic research article which can have far reaching clinical implications and needs to be investigated further