

## PEER-REVIEW REPORT

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

**Manuscript NO:** 39110

**Title:** Acute effects of partial-body vibration in sitting position

**Reviewer's code:** 02444711

**Reviewer's country:** China

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2018-04-11

**Date reviewed:** 2018-04-13

**Review time:** 2 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

This study aimed to compare the acute effect of stochastic resonance (STOCH) and sinusoidal (SIN) partial-body vibration in sitting position on muscle activity, heart rate variability, balance and flexibility, which involved 50 healthy participants (33 females and 17 males). The novelty of this topic is good, as this topic is seldom reported, esp.

vibration in sitting position. I have the following concerns: 1. This study aims to evaluate the acute effect of vibration. However, both Introduction and Discussion mentioned that the differences in training effectiveness between SIN and STOCH are likely to emerge after longer training periods. In this case, why did the authors target to study acute effect instead of long-term effect? 2. This study worked on the subjects in sitting position. Discussion also told that STOCH might be advantageous in deconditioned person, who suffer from frailty, Parkinson's disease, multiple sclerosis or after a stroke. However, the subjects recruited in this study were very young with mean age at 25.3. Why do the authors choose to study young and healthy subjects? 3. In "Materials and Methods", under "Participants", it mentioned "Expecting a moderate effect size ( $d=0.5$ )...." I am curious how to propose the moderate effect size? Based on what? 4. For the vibration training regime (five series of a one-minute vibration training), any reason to choose this training regime? 5. In "Materials and Methods", under "Participants", it directly described the demographic data of all the recruited subjects, which should belong to Results. Please kindly move to Results. Instead, Methods should tell the recruitment inclusion and exclusion criteria before recruitment, including age range, gender requirement, etc. 6. For the recruitment criteria, did the authors consider level of routine exercise of the subjects? As exercise level affects the subjects' muscle functions that may further influence the acute response, this may be a confounding factor. 7. Also under "Participants", it claims "due to technical problems during measurements, datasets of two participants were removed". This looks vague. What are the exact technical problems? 8. In "Materials and Methods", under "Statistical analysis", one-tailed analysis was performed. As the effect of vibration training is not yet well proven, I do realize that two-tailed analysis is more appropriate. I wonder whether the significance will be different if two-tailed analysis is used. 9. Table 1 generally showed demographic data of all subjects and Results part claimed no



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significant difference of demographic characteristics between STOCH and SIN groups. But I realize that the demographic data of two separate groups should be presented but not a grouped data of all subjects. P values of demographic features between two groups should be presented too.

#### **INITIAL REVIEW OF THE MANUSCRIPT**

##### ***Google Search:***

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

##### ***BPG Search:***

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

## PEER-REVIEW REPORT

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

**Manuscript NO:** 39110

**Title:** Acute effects of partial-body vibration in sitting position

**Reviewer's code:** 03067679

**Reviewer's country:** United States

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2018-03-29

**Date reviewed:** 2018-04-23

**Review time:** 25 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
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			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

The overall concept of the manuscript is novel and has potential to contribute to the literature. The background and methods are well written and easy to follow. Results: Given the lack of randomized sample, a comparison of the group descriptives is warranted. A baseline comparison should be performed. Given that the starting balance



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excursion of STOCH is 73.34 and SIN is 77.77; this difference between groups may influence the results. I recommend that Table 1 have a breakdown by Group assignment. There is no discussion of correlations in the results section, therefore Table 2 seems extraneous. I question whether a paired t-test is more appropriate. Discussion: There is a disconnect between the treatment provided and the outcome measures performed. The treatment was performed in sitting for the novel idea that the treatment could benefit a person in a wheelchair, however, all outcomes are performed in the standing position with the exception of EMG. This disconnect needs to be addressed. Perhaps the testing is something that would be beneficial for a person temporarily in a wheelchair, although, any lasting effect of the treatment is not measured in this study. Overall writing and study methods are well done. References are reasonable.

## **INITIAL REVIEW OF THE MANUSCRIPT**

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- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ [Y] No

### ***BPG Search:***

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