

Does Altering Sitting Posture Have a Direct Effect on Clinical Shoulder Tests in Individuals With Shoulder Pain and Rotator Cuff Degenerative Tears?

Asaf Weisman

MSc.PT and Youssef Masharawi, Ph.D.

Abstract

Statement of the problem: Posture variations have been repeatedly linked to shoulder kinematics, strength, range of motion and rotator cuff diseases, however, no study has as yet examined its possible link with shoulder pain provocation and pain levels during clinical shoulder tests

Objectives

To examine whether changing posture while sitting modifies pain provocation and pain level during performance of three clinical shoulder tests in subjects with shoulder pain and rotator cuff degenerative tears (RCDT).

Methods

Seventy individuals allocated into 2 groups by an experienced physiotherapist: 35 subjects with symptomatic shoulders and RCDT diagnosed by ultrasound (tear size = 1.0 ± 0.5 cm) and 35 control subjects with no symptoms in the upper limb. All subjects were tested by a second physiotherapist for pain provocation (yes/no) and pain level (VAS) using three common clinical shoulder tests: the Neer, the Hawkins-Kennedy and empty can, while sitting in a neutral, slouched and upright posture. Shoulder muscle forces were examined by a hand-held dynamometer for possible correlations only in the neutral posture. All subjects were asked to fill out the quick DASH questionnaire.

Results

In the Symptomatic group, all three clinical tests demonstrated similar pain provocation (100% repeatability) and pain level in all three sitting postures ($3.7 < \text{VAS} < 4.4$, $p > 0.05$). Muscle force mean ranges of the study groups were 4.4-7 kg and in the control group, 6-10.5 kg. No correlations were found between age, body mass index, painful shoulder, hand dominance, onset of symptoms, severity and tear size with any of the dependent variables.

Our work indicates that changing posture while sitting does not directly affect pain provocation and pain levels during performance of three clinical shoulder tests in subjects with shoulder pain and RCDT

Article Information

Conference Proceedings: Global Congress on Physiotherapy, Physical Rehabilitation and Sports Medicine (Paris)

Conference date: 18-19 November, 2019

[Inovineconferences.com](http://inovineconferences.com)

Corresponding author: Asaf Weisman, MSc.PT and Youssef Masharawi, Ph.D; Email: [yossefm\(at\)taux.tau.ac.il](mailto:yossefm(at)taux.tau.ac.il)

Citation: Weisman A (2019) Does Altering Sitting Posture Have a Direct Effect on Clinical Shoulder Tests in Individuals With Shoulder Pain and Rotator Cuff Degenerative Tears?. J Health Sci Dev.

Copyright: © 2019 Weisman A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

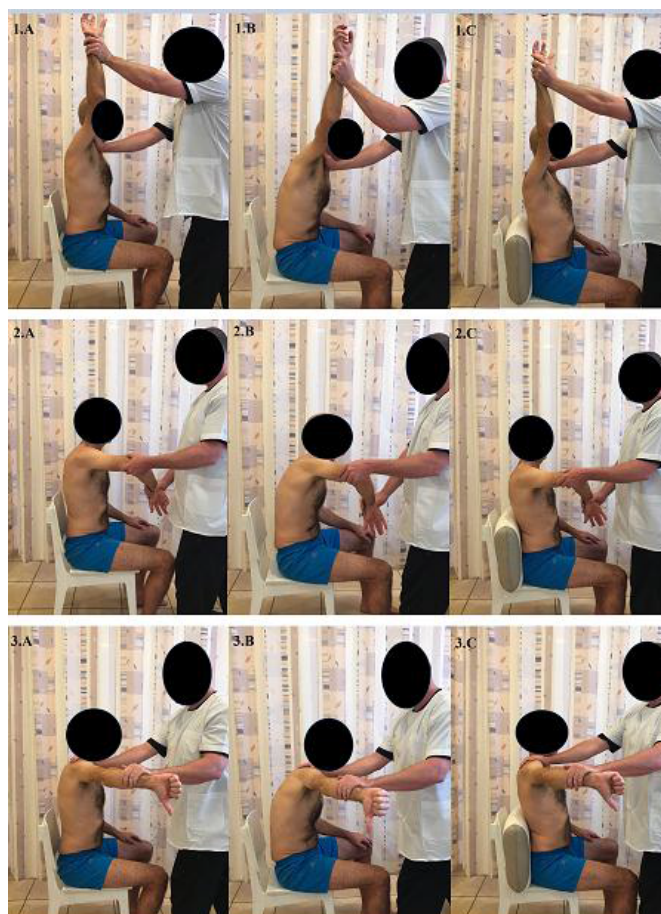


Figure: Postural testing position. (1) Neer test; (2) Hawkins-Kennedy; (3) empty can test; (A) neutral posture; (B) slouched posture; (C) upright posture.