ABSTRACT

TITLE:	Postural Sway at Varying Heights: Athletes Versus Non-Athletes
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ABSTRACT: Despite a vast body of research on balance and postural sway, there is little known about the impacts that varying heights above ground level have on an individual's postural sway, whether in athletes or non-athletes. Knowing how athletic training affects an individual's balance at varying heights may affect how that individual trains, particularly when the competition involves events above ground level or the performance of balance intensive activities. Purpose: The purpose of this study was to determine how postural sway differs between athletes and non-athletes, thirty years of age and older, when they are placed at varying heights above ground level. Methods: Participants were asked to stand on the Nintendo Wii Fit platform at ground level to take a control measurement. They were then asked to stand on platforms at three consecutive varying heights (1, 2, and 3 feet off of the ground) and to remain as stable and still as possible. Measurements of average displacement off center were taken at all four heights. Results: There was a significant difference between postural sway in athletes and non-athletes (P=.00034). There was no significant difference of postural sway at the varying heights (P=.77). Conclusion: These findings suggest that athletes control their postural sway more effectively than non-athletes at the varying heights. The findings may be beneficial in the development of training programs for individuals competing above ground level as well as for athletes participating in balance intensive activities.