

## The effects of a weighted vest on center of mass, postural sway and gait

Madison Chaffee, Brent Alumbaugh & Michael Reeder Colorado Mesa University, Grand Junction, Colorado

Research has suggested that weighted blankets, vests and compressive vests may have positive outcomes related to proprioceptive input for autism spectrum disorders as well as cerebral palsy. **Purpose:** The purpose of this study is to evaluate healthy college age subjects and examine the effects that a weighted vest has on center of mass (COM), center of postural sway (COP) and gait. **Methods**: Fifteen healthy college students will be asked to perform the unipedal balance test and the gait cycle evaluation both with and without a weighted vest. Participants will first be evaluated without weight for COM, COP and gait. Subjects will then be asked to wear a 9.8 kg weighted vest for 45 minutes and then be reassessed in a similar fashion to the control condition. **Hypothesis:** We hypothesize that the weighted vest will decrease postural sway and there will be an improvement to gait cycle. **Conclusion:** Previous research has shown that weighted vest and blankets have positive benefits on increasing ones proprioception improving balance as well as improvements to behavior in participants on the autism spectrum. In this study positive results in a healthy population could be investigated with other populations such as spectrum and CP.

Keywords: Weighted Vest, Center of Mass, Postural Sway, Gait