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Individuals with a vestibular-related disorder use a somatosensory-dominant strategy for postural orientation after inclined stance

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The vestibular system integrates information from head acceleration and infers the force of gravity and forces generated from and by the body to supply the CNS with critical information regarding spatial orientation. Vestibular disorders can affect an individual's sense of movement, visual stability and ability to maintain balance. This may result in a form of sensorimotor compensation in which the somatosensory system exerts a relatively larger influence on postural control. Here, we showed that individuals with a vestibular-related disorder exhibited a somatosensory-dominant response following stance on an inclined surface. It is likely that an individualized protocol to strengthen the relative sensitivities of vestibular, visual and somatosensory inputs will provide an effective intervention in patients with a vestibular-related disorder. In addition to examining activities that exacerbate symptoms and teaching alternate movement strategies, the results of our study suggest that incorporating somatosensory-dominant movement strategies may also be effective for rehabilitating the vestibular population.

Biography

Raymond Chong completed his PhD in 1997 from University of Oregon. He is the Director of Augusta University's Human Movement Science Lab. He is a lead Author in over 70% of his papers. In addition to serving as Executive Editor of the *Journal of Novel Physiotherapies*, he also serves on the editorial board of other journals including *Gait & Posture*.

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