

Biomechanical Gait Analysis in Patients Post Stroke: A Randomized Controlled Trial - A Pilot Study

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Patients having suffered from cerebrovascular accident (CVA), or stroke, show better improvement in gait mechanics using body weight supported ambulation training (BWS) versus traditional, over-ground training for rehabilitation. Various studies have documented the success of BWS, but few have quantified these improvements of walking, especially at this early time-point, through 3D motion capture to analyze gait outcomes such as joint angles and moments, step length and velocity. An interdisciplinary team of researchers from the Bioengineering and Physical Therapy departments at FGCU are partnering with clinicians at Naples Community Hospital Brookdale Center for Healthy Aging and Rehabilitation to assess these gait outcomes on a randomized group of stroke patients undergoing rehab, either BWS or traditional rehabilitation for gait retraining. Once the patients are discharged from the hospital, participants will come to the Arthrex Biomechanics Lab in Holmes Hall on FGCU's campus for a complete gait assessment. Outcomes of this pilot study will help determine feasibility of the time point for analyzing gait and will be used to write a collaborative proposal with NCH for continued funding of this study.



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