Evidence Based Strategies to Preserve Shoulder Function in Manual Wheelchair Users

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The increased demand on the upper limbs during manual wheelchair use results in a high prevalence of shoulder pathology in people with spinal cord injury (SCI). Because individuals with SCI are dependent on their upper extremities for mobility and daily activities, shoulder dysfunction can present a devastating loss of independence and decreased quality of life. This presentation will outline the research at Rancho Los Amigos National Rehabilitation Center on quantification of shoulder loading and muscular demands during wheelchair propulsion and highlight the engineering solutions for preserving shoulder function and discuss recently funded projects for optimizing mobility in the home and community for the aging manual wheelchair user.