

Quick Review of Model System Research

Transfer Technique Is Associated With Shoulder Pain and Pathology in People With Spinal Cord Injury: A Cross-Sectional Investigation^{1*}

What is the study about?

The study evaluated how technique used during wheelchair transfers related to shoulder pain and injury in people with spinal cord injury (SCI). Since wheelchair users depend on their arms to perform most of their daily activities, muscles and tendons around the shoulder often get overused and injured. Appropriate transfer techniques may help prevent pain and damage.

Who participated in the study?

Sixty-nine wheelchair users with SCI participated in the study. All of the participants were over 18, had been injured at least a year, and could complete wheelchair transfers without using their legs.

How was the study conducted?

The participants completed the Wheelchair User's Shoulder Pain Index (WUSPI), which measures the shoulder pain they feel during different daily activities. The researchers analyzed the questions in the WUSPI that were related to pain during wheelchair transfers. A physician gave all participants an upper extremity motor exam to calculate the strength in their upper limb muscles. Participants also underwent an ultrasound examination, which measured injury to the tendons around the shoulder. After these physical examinations, participants' transfer technique was tested with the Transfer Assessment Instrument (TAI).

What did the study find?

The study found that participants with better transfer technique rated by the TAI, had less shoulder damage as seen through both the physical exams and their self-reports. The study also found that the relationship between shoulder pain and transfer technique was influenced by body weight. Participants with a higher body weight reported higher pain during transfers. The results indicate that good transfer technique and lower body weight are associated with less shoulder damage and pain.

Resources on Safe Transfer Technique

Safe Transfer Technique Factsheet: <http://www.msktc.org/sci/factsheets/safe-transfer-technique>

Safe Transfer Narrated Slideshow: <http://www.msktc.org/sci/slideshows/Safe-Transfer-Technique>

The contents of this quick review were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DP0082). However, these contents do not necessarily represent the policy of Department of Health and Human Services, and you should not assume endorsement by the Federal Government.

¹Hogaboom, N. S., Worobey, L. A., & Boninger, M. L. (2016). Transfer Technique Is Associated With Shoulder Pain and Pathology in People With Spinal Cord Injury: A Cross-Sectional Investigation. *Archives of physical medicine and rehabilitation*.

*The contents of this summary have been reviewed by the corresponding author of the original study.