

EFFECTS OF OVERGROUND SURFACES ON TRUNK KINEMATICS DURING START-UP WC PROPULSION

**YEN-SHENG LIN, MS; ALICIA M. KOONTZ, PHD, RET; MICHAEL BONINGER, MD;
HUMAN ENGINEERING RESEARCH LABORATORIES, VA CENTER FOR
EXCELLENCE FOR WHEELCHAIRS AND ASSOCIATED REHABILITATION
ENGINEERING, HIGHLAND DRIVE VA MEDICAL CENTER, PITTSBURGH, PA;
DEPARTMENT OF REHABILITATION SCIENCE AND TECHNOLOGY, DEPARTMENT
OF PHYSICAL MEDICINE AND REHABILITATION, PITTSBURGH, PA**

Increased trunk flexion was associated with better start-up propulsion biomechanics. The findings suggest that increasing core muscle function by providing for better trunk support through therapy, wheelchair adaptations or FES could help improve start-up propulsion biomechanics.