

FOR IMMEDIATE RELEASE
November 2, 2006

Contact: Sara Mulroy, Ph.D., P.T.
Telephone (562) 401-7177

**RANCHO LOS AMIGOS INVESTIGATOR AWARDED NIH GRANT TO
STUDY SHOULDER PAIN IN PEOPLE WITH SPINAL CORD INJURY**

Individuals who sustain a spinal cord injury and are then reliant on a wheelchair for mobility are at increased risk for development of disabling shoulder joint pain. Sara Mulroy, PhD, PT, director of the Pathokinesiology Laboratory at Rancho Los Amigos National Rehabilitation Center, has been awarded a 5-year, \$1.04 million grant from the National Institutes of Health, National Center for Medical Rehabilitation Research (NCMRR) to study the risk factors for shoulder pain in this population.

The most common diagnoses for people with spinal cord injury who have shoulder pain are inflammation and tears in the rotator cuff tendons of the shoulder. This pathology has been attributed to increased weight bearing on the arms during wheelchair propulsion, transfers in and out of a wheelchair and raising body weight on the arms to relieve pressure on the skin. Mulroy and colleagues at Rancho Los Amigos have been studying the demands on the shoulder during these activities for the past 15 years. They have preliminary evidence in a small sample of subjects that the pattern an individual uses to propel a wheelchair can impact the risk of developing shoulder pain.

In the new NIH-funded study Mulroy and her fellow researchers from Rancho will follow a group of 320 subjects with paraplegia from spinal cord injury for 3 years to determine the factors associated with shoulder pain. They will record the forces that each person exerts on his or her arms during wheelchair propulsion and the strength of the major shoulder muscle groups in the Pathokinesiology Laboratory, Rancho's renowned gait and motion analysis laboratory. Researchers will install a meter on the subjects' wheelchair to record their average distance and speed of wheelchair propulsion during daily activities. At the end of three years Mulroy will compare the patterns of wheelchair propulsion, muscle strength and wheelchair activity levels in subjects who develop shoulder pain with those who remain pain-free. The overall goal of the study is to develop recommendations to reduce the strain and joint deterioration that may occur with long-term weight bearing on the arms to prevent further loss of functional independence after spinal cord injury.

Subjects will receive up to \$400 for their participation. To learn more or to determine if you are eligible to be a part of the study, please call (562) 401-7177.