

Eli's Rehab Report

Clinical Rehab Roundup: Adherence to Exercise Strategies Is Key

"Endurance exercise training to improve economy of movement of people with Parkinson's disease: three case reports."

Schenkman M, Hall D, Kumar R, Kohrt WM. Phys Ther. 2008 Jan;88(1):63-76. Epub 2007 Oct 16.

Researchers noted that even early in Parkinson's disease (PD), individuals have reduced economy of movement. In this case report, researchers examined the effects of endurance exercise training on walking economy and other measures for three individuals in early and middle stages of PD. Subjects included one woman and two men with PD, aged 52 to 72 years, classified at Hoehn and Yahr stages 2 to 2.5.

Each patient completed four months of supervised endurance exercise training and 12 months of home exercise, with monthly clinic follow-up sessions.

Researchers included strategies to enhance adherence to exercise. The main outcome measure was economy of movement (rate of oxygen consumption during gait), measured at four treadmill speeds. Secondary outcome measures included the Unified Parkinson's Disease Rating Scale (UPDRS), Continuous-Scale Physical Functional Performance Test (CS-PFP), Functional Reach Test (FRT), and Functional Axial Rotation Test (FAR).

Findings: Economy of movement improved for all three patients after four months of supervised exercise -- and remained above baseline at 16 months. Two patients also had scores that were above baseline for UPDRS total score, CS-PFP, FRT, and FAR, even at 16 months.

Researchers concluded that improvements may occur with a treadmill training program that is coupled with specific strategies to enhance adherence to exercise.