



AAN 64th ANNUAL MEETING ABSTRACT

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Abstract Title: 24 Months of Exercise Improves the Motor Symptoms in Parkinson's Disease

Press Release Title: Study: Weight Training Improves Parkinson's Symptoms

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Background: Many different exercise programs have been suggested for people with PD, but few have been compared over long time periods. This clinical trial compared progressive resistance exercise (PRE) with Fitness Counts (FC). The hypothesis was that PRE will improve UPDRS-III to a greater extent compared with FC due to the progressive and more intense nature of the program.

Design/Methods: This was a 24-month, blinded-rater, randomized controlled clinical trial. Participants were paired based on sex and off-medication UPDRS-III score. Within pair, assignment to PRE or FC was random. The UPDRS-III was administered off medication at baseline, 6, 12, 18 and 24 months of exercise. Participants exercised for one hour, twice a week for 24 months.

Results: Forty-eight participants (58% male, age=59 yrs, disease duration=7 yrs) completed the six-month program, with 38 completing 24 months. The mean UPDRS-III score off medication decreased for both FC (-5.38) and PRE (-6.42) from baseline to six months (p 's < .0001); these changes did not differ by group (p = .5467). In contrast, the UPDRS-III score was reduced for PRE compared with FC at 12 months (p = .023), 18 months (p = 0.017) and 24 months (p < .001). At 24 months the UPDRS-III score for the FC group had returned to baseline whereas the PRE group maintained a 7.3 point improvement.

Conclusions: Both PRE and FC reduced UPDRS-III score in PD following the six-month intervention, but PRE was significantly better over two years. Improved motor status over 24 months in a progressive neurodegenerative disease suggests that long-term PRE could be considered an integral component of comprehensive disease management.

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