

A Two Year Randomized Controlled Trial of Progressive Resistance Exercise for Parkinson's Disease

Corcos, D.M., Robichaud, J.A., David, F.J., Leurgans, S.E., Vaillancourt, D.E., Poon, C., Rafferty, M.R., Kohrt, W.M. and Comella, C.L., 2013. A two-year randomized controlled trial of progressive resistance exercise for Parkinson's disease. *Movement Disorders*, 28(9), pp.1230-1240.

Setting the scene

The effects of **progressive resistance exercise (PRE)** on the motor signs of Parkinson's disease have not been studied in controlled trials. The aim was to compare 6, 12, 18, and 24 month outcomes of patients with Parkinson's disease who received **PRE to a stretching, balance, and strengthening exercise program**.

What did they do?

A randomized controlled trial between September 2007 and July 2011. Pairs of patients, matched by sex and off-medication Unified Parkinson's Disease Rating Scale, motor subscale (UPDRS-III), were randomly assigned to the interventions with a 1:1 allocation ratio. **The PRE group performed a weight lifting program. The Modified Fitness Counts (mFC) group performed a stretching, balance, and strengthening exercise program.** Patients exercised two days per week for 24 months at a gym. A personal trainer directed both weekly sessions for the first six months and one weekly session after six months. **The primary outcome was the off medication UPDRS-III score.** Patients were followed for 24 months at six-month intervals.

Takeaway home message

PRE has a greater benefit than mFC on the signs of Parkinson's disease, **upper limb muscle strength**, and movement speed at 24 months. PRE has also been **shown to reduce falls** which are a major concern in the **treatment** of Parkinson's disease.