

# DDSIG New and Noteworthy

APTA Neurology Section

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## New

### **Title Clinical Functional Capacity Testing in Patients with Facioscapulohumeral Muscular Dystrophy: Construct Validity and Interrater Reliability of Antigravity Tests** [Article Link](#)

Noortje H et al. *Arch Phys Med Rehabil.* 2015 Dec;96(12):2201-6.

**INTRODUCTION:** To evaluate the construct validity and interrater reliability of 4 simple antigravity tests in a small group of patients with facioscapulohumeral muscular dystrophy (FSHD).

**METHODS:** Case-control study. Patients with various severity levels of FSHD (n=9) and healthy control subjects (n=10) were included. Outcome Measures: A 4-point ordinal scale was designed to grade performance on the following 4 antigravity tests: sit to stance, stance to sit, step up, and step down. In addition, the 6-minute walk test, 10-m walking test, Berg Balance Scale, and timed Up and Go test were administered as

conventional tests. Construct validity was determined by linear regression analysis using the Clinical Severity Score (CSS) as the dependent variable. Interrater agreement was tested using a  $\kappa$  analysis.

**RESULTS:** Patients with FSHD performed worse on all 4 antigravity tests compared with the controls. Stronger correlations were found within than between test categories (antigravity vs conventional). The antigravity tests revealed the highest explained variance with regard to the CSS ( $R(2)=.86$ ,  $P=.014$ ). Interrater agreement was generally good.

**CONCLUSION:** The results of this exploratory study support the construct validity and interrater reliability of the proposed antigravity tests for the assessment of functional capacity in patients with FSHD.

## Noteworthy



7th Annual International Symposium on Gait and Balance in Multiple Sclerosis, Portland, OR, September 8-9, 2017. Symposium focus: Neuroplasticity and Rehabilitation

The presenters this year are nationally and internationally recognized for their expertise in neuroplasticity, motor learning and rehabilitation.

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*CONCLUSIONS and CLINICAL IMPLICATIONS: Patients with severe paresis of trunk, pelvis and leg muscles may sometimes still be able to attain acceptable results on conventional balance and gait tests while their true functional capacity is actually worse. They hypothesized that functional tests of muscle strength would be more suitable for assessment of functional capacity in patients with FSHD than conventional tests of balance and gait. The results showed that in comparison with conventional balance and gait tests the reported antigravity tests were more strongly associated with clinical disease severity.*