

Published extracts of articles that have involved
the PowerTrack hand-held dynamometer.

- Shoulder strength testing: the intra- and inter-testing reliability of routine clinical tests, using the PowerTrack II Commander.

Dollings, H et al. *Shoulder & Elbow* 2012 4:131-140.

This study found that there was good to excellent reliability in measuring shoulder strength of 23 people without shoulder symptoms. The reliability of seven different muscle tests were assessed. SEM and SDD were also published.

- Hip adduction and abduction strength profiles in elite soccer players. Implications for clinical evaluation of hip adductor muscle recovery after injury.

Thorborg, K et al. *The American Journal of Sports Medicine* January 2011 39(1):121-126.

- Balance outcomes after additional sit-to-stand training in subjects with stroke: a randomised trial.

Tung, F-L et al. *Clinical Rehabilitation* 2010 24:533-542.

- The concurrent validity of a hand-held versus a stationary dynamometer in testing isometric shoulder strength.

Roy, J-S et al. *Journal of Hand Therapy* Oct-Dec 2009 320-326.

- Effect of anterior cruciate ligament injury and reconstruction on proprioceptive acuity of knee rotation in the transverse plane.

Muaidi, Qi et al. *The American Journal of Sports Medicine*, august 2009; 37(8):1618-1626

- What are the validity of the single-leg-squat test and its relationship to hip-abduction strength.

DiMattia, MA et al. Journal of Sports Rehabilitation 2005 14:108-123.

- Reliability of manual muscle testing with a computerised dynamometer Hsieh, C.Y. & Phillips, RB (1990) J Manip Phys. Ther 13(2):72-82.

The purpose of this study was to investigate the reliability of manual dynamometry. Three testers participated and performed the doctor- and patient-initiated [ie break and make tests respectively] testing methods as described in the literature. The results showed that the intratester reliability coefficients were . 0.96, 0.99 and 0.97 when the patient initiated method was used. The intertester reliability coefficients were 0.77 and 0.59 on day 1 and day 2, respectively, for the doctor- initiated method; 0.95 and 0.96 for the patient initiated method. It is concluded that manual dynamometry is an acceptable procedure for the patient initiated method “

- Reliability of 3 methods for assessing shoulder strength

Hayes, K Walton JR et al J Shoulder Elbow Surg Jan/Feb 2002 11(1):33-39

The reliability of tests for isometric strengths of the shoulder joint in symptomatic subjects [was studied]. All movements tested with the handheld dynamometer [PowerTrack MMT JTech] demonstrated excellent reliability for the interrater trial. Excellent reliability was also demonstrated for elevation, external rotation, and internal rotation for the intrarater trial.