**MUSCLE STRENGTH, FUNCTIONAL ENDURANCE AND HEALTH RELATED QUALITY OF LIFE**

**IN OLDER FEMALE GOLFERS** *Age and Ageing*, Volume 47, Issue suppl\_2, 1 April 2018, Pages ii2–ii3, <https://doi.org/10.1093/ageing/afy042.06> (**Published:** 27 March 2018)

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**Introduction**: Grip strength is a reliable predictor of whole body strength in older adults but

muscle characteristics of people with different activity levels have not been studied previously. The

present study examined the relationship between grip strength (GS), quadriceps peak torque

(QPT), functional endurance and health related quality of life (HRQoL) in older female golfers.

**Methods**: Twenty nine healthy female golfers (Mean age: 69.1 years, SD 3.4) participated. The

ISOCOM and JAMAR dynamometers were used to assess QPT and GS respectively. Functional

endurance tests included one minute sit to stand test (1MSTS), 30s wall press (30SWP) and two

minute stair climb (2MSC). HRQol was assessed using the SF-36 questionnaire.

**Results**: Mean GS and QPT were 27.5 ± 4 kg/f and 103.7 ± 25.1 Nm respectively. Mean scores

for the 1MSTS, 30SWP and 2MSC were 31 ± 7.7, 17.4 ± 3.5 and 237.5 ± 48.6 repetitions

respectively. GS was moderately correlated with QPT (r=0.44), 1MSTS (r=0.36), 2MSC (r=0.36)

but had weak correlation with 30SWP (r=0.003). Moderate correlation was observed between

quadriceps peak torque and the 1MSTS (r=0.50; p=0.01), 2MSC (r=0.44; p=0.02) and 30SWP

(r=0.33). 30SWP and 2MSC were significantly correlated with the SF-36 physical function score r=

0.41 (p=0.03) and r=0.61 (p<0.0005) and general well-being r=0.47 (p=0.01) and r=0.39

(p=0.04) respectively.

**Conclusion**: Quadriceps strength was more closely associated with functional endurance

measures than grip strength in older female golfers. Functional endurance was associated with

general health and physical function. A single strength measure may not reflect overall muscle

characteristics in active older females and hence assessment of both upper and lower limb

strength may be appropriate.