**Info for readme file to accompany *PLOS ONE* data archive**

Archived data pertaining to article: Wilson, C., Perkin, O.J., McGuigan, M.P. & Stokes, K. (2016). **The effect of age on technique variability and outcome variability during a leg press [ISRCTN31521726].** *PLOS ONE.* **In-Press.**

HEIGHT

Distance from the floor (feet against the wall, barefoot, ankles together) to the top of the head (against the wall, looking ahead) after maximal inspiration and straight legs was measured to the nearest 0.1 cm using a wall-mounted stadiometer (SECA GmbH, Birmingham).

BODY MASS

The weight of each patient was measured to the nearest 100 g using electronic scales (TANITA Inner Scan Body Composition Monitor-BC453, Tokyo) whilst they wore minimal clothing (lightweight shorts only for males; lightweight shorts plus lightweight vest-top for females), with the same clothing standardised between baseline and follow-up.

BMI

The BMI of each participant was calculated by dividing body mass (in kg) by height (in m) squared:

BMI = mass [kg] / height2 [m]

1RM VALUE

The 1-RM value of each participant was determined during a preliminary trial, which was completed seven days prior to the main trial. Participants performed a 1-RM test in which discrete repetitions to failure were attempted at participant-selected increments in resistance. Repetition velocity and rest periods between repetitions were self-selected, with participants instructed to aim to reach their 1-RM within 20 repetitions.

PEAK POWER

Peak power values were determined for each participant during the main trial in which they performed 8 discrete repetitions of the leg press exercise at 40% 1-RM resistance with 60 seconds recovery between repetitions. Participants were instructed to perform the repetitions as fast as possible and the peak power value was the highest recorded value of power during the repetition.

COUPLING ANGLE VARIABILITY

The coupling angle for each percentage of the leg phase for all participants for both the ankle-knee coupling (‘CouplingAngle(K-A)Variability’) and knee-hip (‘CouplingAngle(K-A)Variability’) coupling were determined as follows;

Sagittal plane joint angles for the left ankle (plantar-dorsiflexion), knee (flexion-extension) and hip (flexion-extension) were derived for each leg press as 2D projections on the y-z plane. The joint angle data were subsequently low pass filtered using a cut-off frequency of 8 Hz, and normalised to 100% of the leg extension phase. Angle-angle plots were created for each coupling and coupling angles were determined using the angle of the vector joining two adjacent points on the angle-angle plots. The standard deviation of coupling angle across repetitions was calculated for each percent of the leg extension phase, with a mean value of the standard deviation across the leg extension phase being subsequently calculated for each participant. Intra-individual trial means and standard deviations were calculated using circular statistics.