

Effects of Multi-Ingredient Preworkout Supplementation across a Five-Day Resistance and Endurance Training Microcycle in Middle-Aged Adults

PUENTE-FERNÁNDEZ, Joel, SEIJO, Marcos, LARUMBE-ZABALA, Eneko, JIMÉNEZ, Alfonso http://orcid.org/0000-0001-5295-9668, LIGUORI, Gary, ROSSATO, Claire JL, MAYO, Xian http://orcid.org/0000-0002-4143-701X and NACLERIO, Fernando http://orcid.org/0000-0001-7405-4894

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Supplementary Material 1

Table S1. Mean $(M) \pm$ standard deviation (SD) and 95% CI of the differences measured after the three resistance training sessions for the tensiomyography variables determined in the two assessed conditions.

| Muscles | Conditions | | PREW (n=14) | CHO (n=14) | | | | ANOVA Repeated Measures |
|-----------------------------------|-------------------------|--|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|-----------------------------------|---|
| | Variables | RT 1 | RT 2 | RT 3 | RT 1 | RT 2 | RT 3 | (3 workouts x 2 supplements) |
| Anterior Deltoids | Vc (m·s-1) | $0.002 \pm 0.04 \\ [-0.02, 0.03]$ | $0.01 \pm 0.1 \\ [-0.02, 0.04]$ | $0.02 \pm 0.1 \\ [-0.02, 0.05]$ | $-0.001 \pm 0.1 \\ [-0.03, 0.03]$ | 0.01 ± 0.1 [-0.03, 0.05] | $0.00 \pm 0.1 \\ [-0.04, 0.05]$ | Workout: F(2,24)=0.970; p=0.392; η^2 = 0.009 Supplement: F(1,13)=0.393; p=0.542; η^2 = 0.003 Workout x Supplement: F(2,24)=0.797; p=0.461; η^2 = 0.004 |
| | Dm (mm) | -0.08 ± 1.7 [-1.11, 0.95] | 0.53 ± 2.1 [-0.75, 1.82] | 0.58 ± 2.2 [-0.72, 1.89] | -0.18 ± 2.1 [-1.47, 1.10] | 0.53 ± 2.6 [-1.05, 2.11] | -0.02 ± 2.8 [-1.72, 1.68] | Workout: $F(2,24)=1.325$; $p=0.283$; $\eta^2=0.014$ Supplement: $F(1,13)=0.447$; $p=0.516$; $\eta^2=0.003$ Workout x Supplement: $F(2,24)=0.457$; $p=0.638$; $\eta^2=0.003$ |
| | Tc (ms) | $0.04 \pm 2.4 \\ [-1.42, 1.49]$ | 0.52 ± 2.0 [-0.69, 1.73] | 0.46 ± 2.4 [-0.96, 1.87] | -0.03 ± 2.1 [-1.30, 1.24] | 0.31 ± 2.3 [-1.09, 1.71] | -0.08 ± 1.8 [-1.18, 1.02] | Workout: $F(2,26)=0.490$; $p=0.618$; $\eta^2=0.006$ Supplement: $F(1,13)=0.623$; $p=0.444$; $\eta^2=0.004$ Workout x Supplement: $F(2,26)=0.199$; $p=0.821$; $\eta^2=0.002$ |
| Biceps Femoris Long Head | Vc (m·s ⁻¹) | $\begin{array}{c} 0.001 \pm 0.02 \\ [-0.01, 0.02] \end{array}$ | $0.01 \pm 0.02 \\ [-0.01, 0.02]$ | $0.02 \pm 0.02 \\ [0, 0.03]$ | $-0.004 \pm 0.02 \\ [-0.02, 0.01]$ | 0.001 ± 0.03 [-0.02, 0.02] | 0.002 ± 0.03 [-0.02, 0.02] | Workout: $F(2,24)=1.141$; $p=0.336$; $\eta^2=0.008$ Supplement: $F(1,12)=0.001$; $p=0.976$; $\eta^2=0.001$ Workout x Supplement: $F(2,24)=0.503$; $p=0.611$; $\eta^2=0.001$ |
| | Dm (mm) | -0.12 ± 1.3 [-0.94, 0.7] | 0.23 ± 1.43 [-0.67, 1.13] | $0.32 \pm 1.46 \\ [-0.60, 1.24]$ | -0.28 ± 1.20 [-1.03, 0.47] | -0.28 ± 1.70 [-1.35, 0.79] | -0.20 ± 1.75 [-1.29, 0.91] | Workout: $F(2,24)=0.272$; $p=0.765$; $\eta^2=0.001$ Supplement: $F(1,12)=0.026$; $p=0.874$; $\eta^2=0.000$ Workout x Supplement: $F(2,24)=0.040$; $p=0.961$; $\eta^2=0.000$ |
| | Tc (ms) | $-1.20 \pm 10.78 \\ [-7.81, 5.42]$ | -1.46 ± 8.94 [-6.77, 3.85] | -3.05 ± 9.49 [-8.56, 2.47] | -0.20 ± 8.4 [-5.16, 4.76] | -3.6 ± 8.85 [-8.43, 1.23] | -2.83 ± 7.98 [-7.33, 1.67] | Workout: $F(2,24)=0.397$; $p=0.677$; $\eta^2=0.003$ Supplement: $F(1,12)=0.266$; $p=0.615$; $\eta^2=0.001$ Workout x Supplement: $F(2,24)=0.474$; $p=0.628$; $\eta^2=0.038$ |
| Vastus Medialis | Vc (m·s ⁻¹) | $-0.004 \pm 0.02 \\ [-0.02, 0.01]$ | $0.001 \pm 0.03 \\ [-0.02, 0.02]$ | $-0.02 \pm 0.02 \\ [-0.02, 0.01]$ | $-0.006 \pm 0.02 \\ [-0.02, 0.01]$ | $-0.002 \pm 0.02 \\ [-0.02, 0.01]$ | $-0.01 \pm 0.02 \\ [-0.02, 0.00]$ | Workout: $F(1,12)=1.561$; $p=0.231$; $\eta^2=0.019$ Supplement: $F(1,12)=0.992$; $p=0.339$; $\eta^2=0.018$ Workout x Supplement: $F(2,24)=1.052$; $p=0.365$; $\eta^2=0.009$ |
| | Dm (mm) | -7.14 ± 1.5 [-1.64, 0.21] | -0.36 ± 1.8 [-1.46, 0.74] | -0.63 ± 1.4 [-1.44, 0.18] | -0.82 ± 1.2 [-1.54, -0.1] | -0.59 ± 1.16 [-1.3, 0.12] | -0.93 ± 1.23 [-1.68, -0.17] | Workout: $F(2,24)=1.779$; $p=0.190$; $\eta^2=0.013$ Supplement: $F(1,12)=1.364$; $p=0.265$; $\eta^2=0.013$ Workout x Supplement: $F(2,24)=0.542$; $p=0.589$; $\eta^2=0.004$ |
| | Tc (ms) | -3.37 ± 12.5 [-11.14, 4.4] | -2.57 ± 13.3 [-10.88, 5.74] | -3.9 ± 12.2 [-11.28, 3.48] | -3.62 ± 12.2 [-11.19, 3.95] | -3.38 ± 12.4 [-11.17, 4.42] | -3.37 ± 11.3 [-10.44, 3.7] | Workout: $F(2,24)=0.355$; $p=0.705$; $\eta^2=0.001$ Supplement: $F(1,12)=1.247$; $p=0.286$; $\eta^2=0.002$ Workout x Supplement: $F(2,24)=1.176$; $p=0.326$; $\eta^2=0.002$ |

Notes: All values are adjusted using sex as covariate. All P>0.05

Table S2. Responses to the questionnaire of sensitive feelings

| Question | Condition | RT 1 | RT 2 | RT 3 | Average |
|-------------------------|-----------|---------|-------------|-------------|---------|
| My energy level is | PREW | 3.7 ± 1 | 3.5 ± 1 | 4.0 ± 1 | 3.7 ± 1 |
| wry chergy level is | СНО | 3.7 ± 1 | 3.9 ± 1 | 3.7 ± 1 | 3.8 ± 1 |
| My fatigue level is | PREW | 1.9 ± 1 | 3.5 ± 1 | 2.0 ± 1 | 2.1 ± 1 |
| , , | СНО | 1.9 ± 1 | 3.9 ± 1 | 1.9 ± 1 | 1.9 ± 1 |
| My feeling of alertness | PREW | 3.7 ± 1 | 3.6 ± 1 | 3.8 ± 1 | 3.7 ± 1 |
| is | СНО | 3.6 ± 1 | 4.0 ± 1 | 3.9 ± 1 | 3.9 ± 1 |
| My feeling of focus for | PREW | 3.8 ± 1 | 3.9 ± 1 | 4.1 ± 1 | 3.9 ± 1 |
| task is: | СНО | 3.6 ± 1 | 4.0 ± 1 | 4.0 ± 1 | 3.9 ± 1 |

PREW = Preworkout supplement; CHO = Carbohydrate supplement. All data are reported as Mean \pm SD.