## Sheffield Hallam University

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

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Table S1. Mean $(\mathrm{M}) \pm$ 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 ( $\mathrm{n}=14$ ) |  |  | CHO (n=14) |  |  | ANOVA Repeated Measures ( 3 workouts $\times 2$ supplements) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Variables | RT 1 | RT 2 | RT 3 | RT 1 | RT 2 | RT 3 |  |
| Anterior Deltoids | $\mathrm{Vc}\left(\mathrm{m} \cdot \mathrm{s}^{-1}\right)$ | $\begin{aligned} & 0.002 \pm 0.04 \\ & {[-0.02,0.03]} \end{aligned}$ | $\begin{gathered} 0.01 \pm 0.1 \\ {[-0.02,0.04]} \end{gathered}$ | $\begin{gathered} 0.02 \pm 0.1 \\ {[-0.02,0.05]} \end{gathered}$ | $\begin{gathered} -0.001 \pm 0.1 \\ {[-0.03,0.03]} \end{gathered}$ | $\begin{gathered} 0.01 \pm 0.1 \\ {[-0.03,0.05]} \end{gathered}$ | $\begin{gathered} 0.00 \pm 0.1 \\ {[-0.04,0.05]} \end{gathered}$ | Workout: $\mathrm{F}(2,24)=0.970 ; \mathrm{p}=0.392 ; \eta^{2}=0.009$ Supplement: $\mathrm{F}(1,13)=0.393 ; \mathrm{p}=0.542 ; \eta^{2}=0.003$ Workout x Supplement: $\mathrm{F}(2,24)=0.797 ; \mathrm{p}=0.461 ; \eta^{2}=0.004$ |
|  | Dm (mm) | $\begin{gathered} -0.08 \pm 1.7 \\ {[-1.11,0.95]} \end{gathered}$ | $\begin{gathered} 0.53 \pm 2.1 \\ {[-0.75,1.82]} \end{gathered}$ | $\begin{gathered} 0.58 \pm 2.2 \\ {[-0.72,1.89]} \end{gathered}$ | $\begin{gathered} -0.18 \pm 2.1 \\ {[-1.47,1.10]} \end{gathered}$ | $\begin{gathered} 0.53 \pm 2.6 \\ {[-1.05,2.11]} \end{gathered}$ | $\begin{gathered} -0.02 \pm 2.8 \\ {[-1.72,1.68]} \end{gathered}$ | 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: $\mathrm{F}(2,24)=0.457 ; \mathrm{p}=0.638 ; \eta^{2}=0.003$ |
|  | Tc (ms) | $\begin{gathered} 0.04 \pm 2.4 \\ {[-1.42,1.49]} \end{gathered}$ | $\begin{gathered} 0.52 \pm 2.0 \\ {[-0.69,1.73]} \end{gathered}$ | $\begin{gathered} 0.46 \pm 2.4 \\ {[-0.96,1.87]} \end{gathered}$ | $\begin{gathered} -0.03 \pm 2.1 \\ {[-1.30,1.24]} \end{gathered}$ | $\begin{gathered} 0.31 \pm 2.3 \\ {[-1.09,1.71]} \end{gathered}$ | $\begin{gathered} -0.08 \pm 1.8 \\ {[-1.18,1.02]} \end{gathered}$ | Workout: $\mathrm{F}(2,26)=0.490 ; \mathrm{p}=0.618 ; \eta^{2}=0.006$ <br> Supplement: $F(1,13)=0.623 ; p=0.444 ; \eta^{2}=0.004$ <br> Workout x Supplement: $\mathrm{F}(2,26)=0.199 ; \mathrm{p}=0.821 ; \eta^{2}=0.002$ |
| Biceps Femoris Long Head | $\mathrm{Vc}\left(\mathrm{m}^{-1}\right)$ | $\begin{aligned} & 0.001 \pm 0.02 \\ & {[-0.01,0.02]} \end{aligned}$ | $\begin{gathered} 0.01 \pm 0.02 \\ {[-0.01,0.02]} \end{gathered}$ | $\begin{gathered} 0.02 \pm 0.02 \\ {[0,0.03]} \end{gathered}$ | $\begin{gathered} -0.004 \pm 0.02 \\ {[-0.02,0.01]} \end{gathered}$ | $\begin{aligned} & 0.001 \pm 0.03 \\ & {[-0.02,0.02]} \end{aligned}$ | $\begin{aligned} & 0.002 \pm 0.03 \\ & {[-0.02,0.02]} \end{aligned}$ | Workout: $\mathrm{F}(2,24)=1.141 ; \mathrm{p}=0.336 ; \eta^{2}=0.008$ <br> Supplement: $F(1,12)=0.001 ; p=0.976 ; \eta^{2}=0.001$ <br> Workout x Supplement: $F(2,24)=0.503 ; p=0.611 ; \eta^{2}=0.001$ |
|  | Dm (mm) | $\begin{gathered} -0.12 \pm 1.3 \\ {[-0.94,0.7]} \end{gathered}$ | $\begin{gathered} 0.23 \pm 1.43 \\ {[-0.67,1.13]} \end{gathered}$ | $\begin{gathered} 0.32 \pm 1.46 \\ {[-0.60,1.24]} \end{gathered}$ | $\begin{gathered} -0.28 \pm 1.20 \\ {[-1.03,0.47]} \end{gathered}$ | $\begin{gathered} -0.28 \pm 1.70 \\ {[-1.35,0.79]} \end{gathered}$ | $\begin{aligned} & -0.20 \pm 1.75 \\ & {[-1.29,0.91]} \end{aligned}$ | Workout: $\mathrm{F}(2,24)=0.272 ; \mathrm{p}=0.765 ; \eta^{2}=0.001$ <br> Supplement: $F(1,12)=0.026 ; p=0.874 ; \eta^{2}=0.000$ <br> Workout x Supplement: $\mathrm{F}(2,24)=0.040 ; \mathrm{p}=0.961 ; \eta^{2}=0.000$ |
|  | Tc (ms) | $\begin{gathered} -1.20 \pm 10.78 \\ {[-7.81,5.42]} \end{gathered}$ | $\begin{aligned} & -1.46 \pm 8.94 \\ & {[-6.77,3.85]} \end{aligned}$ | $\begin{gathered} -3.05 \pm 9.49 \\ {[-8.56,2.47]} \end{gathered}$ | $\begin{gathered} -0.20 \pm 8.4 \\ {[-5.16,4.76]} \end{gathered}$ | $\begin{gathered} -3.6 \pm 8.85 \\ {[-8.43,1.23]} \end{gathered}$ | $\begin{gathered} -2.83 \pm 7.98 \\ {[-7.33,1.67]} \end{gathered}$ | Workout: $\mathrm{F}(2,24)=0.397 ; \mathrm{p}=0.677 ; \eta^{2}=0.003$ <br> Supplement: $F(1,12)=0.266 ; p=0.615 ; \eta^{2}=0.001$ <br> Workout x Supplement: $F(2,24)=0.474 ; p=0.628 ; \eta^{2}=0.038$ |
| Vastus <br> Medialis | $\mathrm{Vc}\left(\mathrm{m} \cdot \mathrm{s}^{-1}\right)$ | $\begin{gathered} -0.004 \pm 0.02 \\ {[-0.02,0.01]} \end{gathered}$ | $\begin{aligned} & 0.001 \pm 0.03 \\ & {[-0.02,0.02]} \end{aligned}$ | $\begin{gathered} -0.02 \pm 0.02 \\ {[-0.02,0.01]} \end{gathered}$ | $\begin{gathered} -0.006 \pm 0.02 \\ {[-0.02,0.01]} \end{gathered}$ | $\begin{gathered} -0.002 \pm 0.02 \\ {[-0.02,0.01]} \end{gathered}$ | $\begin{gathered} -0.01 \pm 0.02 \\ {[-0.02,0.00]} \end{gathered}$ | Workout: $\mathrm{F}(1,12)=1.561 ; \mathrm{p}=0.231 ; \eta^{2}=0.019$ Supplement: $F(1,12)=0.992 ; p=0.339 ; \eta^{2}=0.018$ <br> Workout x Supplement: $F(2,24)=1.052 ; p=0.365 ; \eta^{2}=0.009$ |
|  | Dm (mm) | $\begin{gathered} -7.14 \pm 1.5 \\ {[-1.64,0.21]} \end{gathered}$ | $\begin{gathered} -0.36 \pm 1.8 \\ {[-1.46,0.74]} \end{gathered}$ | $\begin{gathered} -0.63 \pm 1.4 \\ {[-1.44,0.18]} \end{gathered}$ | $\begin{gathered} -0.82 \pm 1.2 \\ {[-1.54,-0.1]} \end{gathered}$ | $\begin{gathered} -0.59 \pm 1.16 \\ {[-1.3,0.12]} \end{gathered}$ | $\begin{aligned} & -0.93 \pm 1.23 \\ & {[-1.68,-0.17]} \end{aligned}$ | Workout: $\mathrm{F}(2,24)=1.779 ; \mathrm{p}=0.190 ; \eta^{2}=0.013$ <br> Supplement: $F(1,12)=1.364 ; p=0.265 ; \eta^{2}=0.013$ <br> Workout x Supplement: $\mathrm{F}(2,24)=0.542 ; \mathrm{p}=0.589 ; \eta^{2}=0.004$ |
|  | Tc (ms) | $\begin{gathered} -3.37 \pm 12.5 \\ {[-11.14,4.4]} \end{gathered}$ | $\begin{gathered} -2.57 \pm 13.3 \\ {[-10.88,5.74]} \end{gathered}$ | $\begin{gathered} -3.9 \pm 12.2 \\ {[-11.28,3.48]} \end{gathered}$ | $\begin{gathered} -3.62 \pm 12.2 \\ {[-11.19,3.95]} \end{gathered}$ | $\begin{gathered} -3.38 \pm 12.4 \\ {[-11.17,4.42]} \end{gathered}$ | $\begin{aligned} & -3.37 \pm 11.3 \\ & {[-10.44,3.7]} \end{aligned}$ | Workout: $\mathrm{F}(2,24)=0.355 ; \mathrm{p}=0.705 ; \eta^{2}=0.001$ <br> Supplement: $F(1,12)=1.247 ; p=0.286 ; \eta^{2}=0.002$ <br> 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 $\mathrm{P}>0.05$

Table S2. Responses to the questionnaire of sensitive feelings

| Question | Condition | RT 1 | RT 2 | RT 3 | Average |
| :---: | :---: | :---: | :---: | :---: | :---: |
| My energy level is | PREW | $3.7 \pm 1$ | $3.5 \pm 1$ | $4.0 \pm 1$ | $3.7 \pm 1$ |
|  | CHO | $3.7 \pm 1$ | $3.9 \pm 1$ | $3.7 \pm 1$ | $3.8 \pm 1$ |
| My fatigue level is | PREW | $1.9 \pm 1$ | $3.5 \pm 1$ | $2.0 \pm 1$ | $2.1 \pm 1$ |
|  | CHO | $1.9 \pm 1$ | $3.9 \pm 1$ | $1.9 \pm 1$ | $1.9 \pm 1$ |
| My feeling of alertness is | PREW | $3.7 \pm 1$ | $3.6 \pm 1$ | $3.8 \pm 1$ | $3.7 \pm 1$ |
|  | CHO | $3.6 \pm 1$ | $4.0 \pm 1$ | $3.9 \pm 1$ | $3.9 \pm 1$ |
| My feeling of focus for task is: | PREW | $3.8 \pm 1$ | $3.9 \pm 1$ | $4.1 \pm 1$ | $3.9 \pm 1$ |
|  | CHO | $3.6 \pm 1$ | $4.0 \pm 1$ | $4.0 \pm 1$ | $3.9 \pm 1$ |

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

