Supplementary Table 1: F Ratios and p-values for each main and interaction effects for each of the muscles examined for iEMG. “Speed” is the 5 running speed conditions (12, 15, 18, 21, and 24km/h), “Incline” is 7 conditions (-15%, -10%, -5%, 0%, 5%, 10%, and 15%), and there were 3 “Bodyweight” conditions (60%, 80%, and 100% indicated bodyweight).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| iEMG | Semitendinosus | | Biceps Femoris | | Rectus Femoris | | Vastus Lateralis | | Vastus Medialis | |
| F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F |
| Speed | 761.861 | <.0001\* | 188.717 | <.0001\* | 532.306 | <.0001\* | 226.014 | <.0001\* | 432.808 | <.0001\* |
| Incline | 27.540 | <.0001\* | 17.787 | <.0001\* | 22.569 | <.0001\* | 7.515 | 0.0063\* | 17.245 | <.0001\* |
| Bodyweight | 66.048 | <.0001\* | 24.319 | <.0001\* | 36.872 | <.0001\* | 35.995 | <.0001\* | 103.378 | <.0001\* |
| Speed\*Incline | 22.155 | <.0001\* | 10.363 | 0.0013\* | 19.458 | <.0001\* | 21.025 | <.0001\* | 3.413 | 0.0651 |
| Speed\*Bodyweight | 14.476 | 0.0002\* | 3.011 | 0.0831 | 7.906 | 0.0051\* | 3.518 | 0.0611 | 7.379 | 0.0067\* |
| Incline\*Bodyweight | 0.514 | 0.4736 | 1.116 | 0.2912 | 1.147 | 0.2845 | 4.193 | 0.0409\* | 0.072 | 0.7882 |
| Speed\*Incline\*Bodyweight | 0.182 | 0.6694 | 0.365 | 0.5461 | 4.006 | 0.0457\* | 6.167 | 0.0132\* | 0.164 | 0.6853 |
|  | | | | | | | | | | |
| iEMG (cont’d) | Gluteus Maximus | | Tibialis Anterior | | Soleus | | Gastrocnemius Lateralis | | Gastrocnemius Medialis | | Gluteus Medius | |
| F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F | F Ratio | Prob > F |
| Speed | 198.502 | <.0001\* | 331.183 | <.0001\* | 241.029 | <.0001\* | 167.823 | <.0001\* | 216.428 | <.0001\* | 150.078 | <.0001\* |
| Incline | 26.589 | <.0001\* | 3.364 | 0.067 | 29.648 | <.0001\* | 7.342 | 0.0069\* | 17.336 | <.0001\* | 8.620 | 0.0034\* |
| Bodyweight | 16.760 | <.0001\* | 22.775 | <.0001\* | 42.322 | <.0001\* | 19.404 | <.0001\* | 21.055 | <.0001\* | 1.900 | 0.1685 |
| Speed\*Incline | 6.926 | 0.0087\* | 3.727 | 0.0539 | 8.378 | 0.0039\* | 3.358 | 0.0673 | 4.527 | 0.0337\* | 3.712 | 0.0544 |
| Speed\*Bodyweight | 2.375 | 0.1237 | 7.798 | 0.0054\* | 2.639 | 0.1047 | 2.903 | 0.0888 | 2.868 | 0.0908 | 2.187 | 0.1396 |
| Incline\*Bodyweight | 3.208 | 0.0737 | 0.012 | 0.9142 | 1.235 | 0.2667 | 0.289 | 0.5908 | 2.264 | 0.1328 | 0.722 | 0.3957 |
| Speed\*Incline\*Bodyweight | 0.732 | 0.3923 | 0.106 | 0.745 | 0.529 | 0.4671 | 0.195 | 0.6586 | 1.454 | 0.2282 | 0.736 | 0.3913 |