**Table S1. Estimated mean differences within intervention groups with 95% confidence intervals.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ENT | | | HIIT | | | RET | | |
|  | **∆** Pre-Post | **∆** Post-DT | **∆** Pre-DT | **∆** Pre-Post | **∆** Post-DT | **∆** Pre-DT | **∆** Pre-Post | **∆** Post-DT | **∆** Pre-DT |
| Body mass (kg) | -0.1 (-1.8 , 1.9) | -0.1 (-1.7 , 2.0) | -0.2 (-1.7 , 2.1) | 1.0 (-2.8 , 1.0) | 0.1 (-2.0 , 1.7) | 1.1 (-0.8 , 2.9) | 1.8 (-0.2 , 3.7) | 0.9 (-1.1 , 3.0) | 2.7 (0.7 , 4.7) |
| BMI (kg.m-2) | 0.0 (-0.4 , 0.4) | 0.0 (-0.5 , 0.4) | 0.0 (-0.4 , 0.5) | 0.2 (-0.3 , 0.6) | 0.1 (-0.3 , 0.6) | 0.3 (-0.1 , 0.7) | 0.5 (0.0 , 0.9)a | -0.1 (-0.5 , 0.4) | 0.4 (-0.1 , 0.9) |
| Lean mass (kg) | 0.4 (-0.3 , 1.2) | -0.1 (-0.8 , 0.7) | 0.4 (-0.4 , 1.2) | 1.0 (0.2 , 1.7)a | 0.0 (-0.8 , 0.8) | 1.0 (0.2 , 1.7)c | 2.0 (1.2 , 2.8)a | -0.8 (-1.6 , 0.1) | 1.2 (0.4 , 2.1)c |
| Leg lean mass (kg) | 0.3 (-0.3 , 0.8) | 0.1 (-0.5 , 0.6) | 0.3 (-0.2 , 0.9) | 0.8 (0.2 , 1.3) | 0.1 (-0.5 , 0.6) | 0.8 (0.3 – 1.4) | 1.0 (0.4 , 1.6) | 0.2 (-0.4 , 0.8) | 0.8 (0.2 , 1.4) |
| Fat mass (kg) | -0.5 (-1.4 , 0.4) | -0.01 (-1.0 , 0.8) | -0.5 (-1.4 , 0.3) | 0.0 (-0.9 , 0.9) | 0.1 (-0.8 , 1.0) | 0.1 (-0.8 , 1.0) | -0.2 (-1.1 , 0.8) | 0.3 (-0.6 , 1.3) | 0.2 (-0.8 , 1.1) |
| Type I CSA (μm2) | 462 (-399 , 1322) | 46 (-791 , 882) | 507 (-329 , 1343) | 865 (14 , 1745) | -962 (-1842 , -83) | -97 (-1005 , 812) | -68 (-784 , 920) | -242 (-1197, 714) | -309 (-1264 , 643) |
| Type II CSA (μm2) | 569 (-292 , 1429) | -122 (-958 , 714) | 447 (-389 , 1283) | 462 (-417 , 1341) | -236 (-1116 , 643) | 226 (-682 , 1134) | 473 (-378 , 1325) | -403 (-1358 , 552) | 70 (-885 , 1025) |
| Leg press 1RM (kg) | 16 (1 , 31)a | 19 (4 , 36)b | 35 (20 , 50)c | 27 (12 , 42)a | 2 (-13 , 18) | 29 (14 , 44)c | 73 (57 , 88)a | -8 (-24 , 8) | 64 (48 , 80)c |
| Leg press 1RM (kg.kg BM-1) | 0.2 (0.0 ,0.4)a | 0.2 (0.0 ,0.4)b | 0.4 (0.2 , 0.6)c | 0.3 (0.1 , 0.4)a | 0.0 (0.0 , 0.0) | 0.3 (0.1 , 0.5)c | 0.7 (0.1 , 0.9)a | -0.1 (-0.2 , 0,1) | 0.7 (0.4 , 0.8)c |
| Leg extension 1RM (kg) | 8 (0 , 16) | 3 (-5 , 11) | 11 (3 , 19)c | 11 (3 , 19)a | 2 (-6 , 11) | 13 (5 , 22)c | 23 (15 , 32)a | 0 (-9 , 9) | 23 (15 , 32)c |
| Leg extension 1RM (kg.kg BM-1) | 0.1 (0.0 , 0.2) | 0.0 (0.0 , 0.1) | 0.1 (0.0 , 0.2) | 0.1 (0.0 , 0.2) | 0.0 (-0.1 , 0.1) | 0.1 (0.0 , 0.2) | 0.2 (0.1 , 0.3) | 0.0 (-0.1 , 0.1) | 0.2 (0.1 , 0.3) |
| Bench press 1RM (kg) | 3 (-3 , 8) | -1 (-7 , 4) | 1 (-4 , 6) | 5 (0 , 11)a | -2 (-7 , 3) | 4 (-1 , 9) | 10 (5 , 16)a | 4 (-1 , 10) | 15 (9 , 20)c |
| Bench press 1RM (kg.kg BM-1) | 0.0 (0.0 , 0.1) | 0.0 (-0.1 , 0.0) | 0.0 (-0.1 , 0.0) | 0.1 (0.0 , 0.1) | 0.0 (-0.1 , 0.0) | 0.0 (0.0 , 0.0) | 0.1 (0.0 , 0.1)a | 0.1 (0.1 , 0.2) | 0.1 (0.0 , 0.1)c |
| Muscle thickness (cm) | 0.0 (-0.1 , 0.1) | 0.0 (-0.1 , 0.1) | 0.0 (-0.1 , 0.1) | 0.2 (0.1 , 0.3)a | -0.1 (-0.2 , 0.0) | 0.2 (0.1 , 0.3)c | 0.3 (0.2 , 0.4)a | -0.3 (-0.4 , -0.2)b | 0.0 (-0.1 , 0.1) |
| VO2peak (L.min-1) | 0.3 (0.2 , 0.4)a | -0.1 (-0.2 , 0.0) | 0.2 (0.0 , 0.3)c | 0.4 (0.3 , 0.5)a | -0.2 (-0.3 , -0.1)b | 0.2 (0.1 , 0.4)c | 0.1 (-0.1 , 0.2) | -0.1 (-0.3 , 0.0) | 0.0 (-0.1 , 0.2) |
| VO2peak (mL.kg-1.min-1) | 3.5 (2.0 , 5.0)a | -2.0 (-3.0 , -0.1)b | 2.0 (0.1 , 3.0)c | 4.0 (2.0 , 6.0)a | -2.0 (-3.0 , -0.1)b | 2.0 (0.1 , 4.0)c | 0.1 (-1.0 , 2.1) | -1.4 (-3 , 0.0) | -0.1 (-3 , 0.1) |
| MAP (W) | 26 (18 , 34)a | -4 (-11 , 4) | 22 (15 , 30)c | 30 (21 , 38)a | -16 (-25 , -9)b | 13 (5 , 21)c | 8 (0.1 , 17)a | -4 (-12 , 5) | 5 (-4 , 13) |
| MAP (W.kg-1) | 0.3 (0.2 , 0.4)a | -0.1 (-0.2 , 0.0) | 0.2 (0.1 , 0.3)c | 0.4 (0.3 , 0.5)a | -0.2 (-0.4 , -0.1)b | 0.2 (0.0 , 0.3)c | 0.1 (-0.1 , 0.2) | 0.0 (-0.2 , 0.1) | 0.0 (-0.1 , 0.2) |
| REE (kJ.d-1) | -6 (-104 , 91) | -42 (-147 , 63) | -48 (-153 , 57) | -14 (-112 , 84) | -19 (-120 , 83) | -33 (-134 , 69) | -43 (-145 , 60) | 14 (-101 , 130) | -28 (-143 , 88) |
| Fasting plasma glucose (mmol.L-1) | -0.2 (-0.5 , 0.2) | 0.3 (-0.5 , 0.5) | 0.1 (-0.2 , 0.4) | -0.1 (-0.4 , 0.2) | 0.1 (-0.2 , 0.4) | 0.0 (-0.3 , 0.3) | 0.3 (0.1 , 0.7)a | -0.4 (-0.7 , -0.1)b | -0.1 (-0.4 , 0.2) |
| AUCtotal glucose (mmol.h-1.L-1) | -68 (-153 , 16) | 65 (-154 , 24) | 3 (-86 , 92) | -5 (-80 , 90) | 7 (-80 , 94) | 2 (-86 , 89) | -56 (-144 , 32) | -46 (-136 , 43) | -103 (-192 , -13)c |
| Fasting plasma insulin (mIU.L-1) | -1.4 (-3.6 , 0.8) | 0.8 (-3.2 , 0.5) | -0.6 (-2.9 , 1.8) | 0.2 (-1.9 , 2.4) | -1.0 (-3.2, 1.2) | -0.8 (-3.0 , 1.5) | -1.7 (-4.0 , -0.5) | -1.0 (-3.3 , 1.3) | -2.8 (-5.1 , -0.5) |
| AUCtotal insulin (mmol.h-1.L-1) | -1 (-1879 , 1881) | 964 (-1085 , 3013) | 963 (-1086 , 3012) | -608 (-2785 , 1273) | 114 (-1823 , 2051) | -493 (-2431 , 1444) | -2006 (-3970 , -42) | -580 (2574 , 1415) | -2586 (-4580 , -591) |
| HOMA2-IR | -0.2 (-0.5 , 0.0) | 0.1 (-0.1 , 0.4) | -0.1 (-0.3 , 0.2) | 0.0 (-0.2 , 0.2) | -0.1 (-0.3 , 0.2) | -0.1 (-0.4 , 0.2) | -0.1 (-0.4 , 0.2) | -0.1 (-0.4 , 0.2) | -0.2 (-0.5 , 0.1) |
| Steps (steps.d-1) | 2077 (-183 , 4337) | -1811 (-4071 , 449) | 266 (-1994 , 2526) | 1076 (-1534 , 3685) | -1196 (-3805 , 1414) | -120 (-2729 , 2490) | -259 (-2519 , 2001) | -790 (-3050 , 1470) | -1049 (-3309 , 1211) |

ENT, endurance exercise training; HIIT, high-intensity interval training; RET, resistance exercise training. 1RM, one-repetition maximum; BMI, body mass index; CSA, muscle fiber cross-sectional area; HOMA2-IR, homeostatic model assessment of insulin resistance; MAP; maximal aerobic power; REE, resting energy expenditure. a, *P*<0.05 for Pre-Post change within group; b, *P*<0.05 for Post-DT change within group; c, *P*<0.05 for Pre-DT change within group.