**Supplemental Table 1**. *Relative* *change in* *hemodynamic responses to prolonged sitting*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measure | Δ0.5 h | Δ1.0 h | Δ2.0 h | Δ3.0 h |
| HR, beats/min |  |  |  |  |
| Men | 1.0 ± 1.2 | 1.8 ± 1.9 | 3.7 ± 2.3ab | 3.4 ± 1.3ab |
| Women | 1.7 ± 1.3 | 4.1 ± 2.1\*a | 4.4 ± 2.2a | 5.1 ± 2.7a |
| SV, ml/beat |  |  |  |  |
| Men | -1.0 ± 1.2 | -2.6 ± 1.6 | -3.4 ± 1.8a | -3.5 ± 1.4a |
| Women | -1.7 ± 1.9 | -3.2 ± 3.7 | -3.9 ± 3.4a | -4.1 ± 3.1a |
| Q, L/min |  |  |  |  |
| Men | -0.01 ± 0.09 | -0.07 ± 0.08 | -0.02 ± 0.12 | -0.02 ± 0.12 |
| Women | -0.07 ± 0.15 | -0.04 ± 0.25 | -0.09 ± 0.26 | -0.09 ± 0.22 |
| SBP, mmHg |  |  |  |  |
| Men | 2.0 ± 1.1 | 4.6 ± 1.7a | 4.8 ± 4.4 | 7.0 ± 3.4ac |
| Women | 3.6 ± 2.8 | 7.1 ± 4.5a | 10.0 ± 4.6\*ab | 10.7 ± 5.3ab |
| DBP, mmHg |  |  |  |  |
| Men | 1.0 ± 1.6 | 2.8 ± 2.1 | 3.8 ± 3.0 | 4.1 ± 1.7a |
| Women | 2.0 ± 2.6 | 3.2 ± 2.9 | 4.4 ± 3.6 | 4.7 ± 3.9a |
| MAP, mmHg |  |  |  |  |
| Men | 1.3 ± 1.1 | 3.4 ± 1.0a | 4.1 ± 2.7a | 5.1 ± 1.9a |
| Women | 2.5 ± 2.0 | 4.5 ± 2.8a | 6.2 ± 3.7a | 6.7 ± 4.3ab |
| TVC, mL/min/mmHg | |  |  |  |
| Men | -0.9 ± 1.3 | -2.7 ± 1.3 | -2.3 ± 1.9 | -3.1 ± 2.1 |
| Women | -2.0 ± 2.0 | -3.1 ± 3.1 | -4.4 ± 3.4a | -4.5 ± 3.3a |

Data presented as means ± SD. HR, heart rate; SV, stroke volume; Q, cardiac output; SBP, systolic blood pressure; DBP, diastolic blood pressure; MAP, mean arterial pressure; TVC, total vascular conductance; Data were analyzed using a group by time repeated measures analysis of variance. \*, *P* < 0.05 vs. men; a, *P* < 0.05 vs. 0.5 h; b, *P* < 0.05 vs. Δ1.0 h; c, *P* < 0.05 vs. Δ2.0 h.

**Supplemental Table 2.** *Relative changes in popliteal artery and calf circumference responses to prolonged sitting.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measure | Δ0.5 h | Δ1.0 h | Δ2.0 h | Δ3.0 h |
| Diameter, mm | |  |  |  |
| Men | 0.02 ± 0.17 | 0.01 ± 0.14 | 0.06 ± 0.15 | 0.08 ± 0.16 |
| Women | 0.11 ± 0.16 | 0.12 ± 0.25 | 0.17 ± 0.28 | 0.15 ± 0.40 |
| MBV, cm/s |  |  |  |  |
| Men | -2.2 ± 1.1 | -2.8 ± 0.8a | -3.0 ± 0.9a | -3.3 ± 0.8ab |
| Women | -2.3 ± 0.7 | -2.7 ± 0.8 | -2.9 ± 0.7 | -3.1 ± 0.7abc |
| LBF, ml/min |  |  |  |  |
| Men | -37 ± 15 | -52 ± 15a | -55 ± 17a | -61 ± 18abc |
| Women | -31 ± 12 | -37 ± 13\* | -39 ± 10\* | -42 ± 12\* |
| Shear Rate, s**-**1 |  |  |  |  |
| Men | -29 ± 18 | -38 ± 14 | -40 ± 16a | -43 ± 15ab |
| Women | -35 ± 8 | -41 ± 11 | -42 ± 13 | -45 ± 14a |
| Calf Cir, cm |  |  |  |  |
| Men | 0.2 ± 0.2 | 0.6 ± 0.3a | 0.9 ± 0.3ab | 1.0 ± 0.4ab |
| Women | 0.2 ± 0.2 | 0.5 ± 0.2a | 0.8 ± 0.3a | 1.0 ± 0.2ab |

Data presented as means ± SD. MBV, mean blood velocity; LBF, leg blood flow; Cir, circumference. Data were analyzed using a group by time repeated measures analysis of variance. \*, *P* < 0.05 vs. men; a, *P* < 0.05 vs. 0.5 h; b, *P* < 0.05 vs. Δ1.0 h; c, *P* < 0.05 vs. Δ2.0 h.