**Table, SDC 7, Vascular and cerebrovascular flow and function of wave 1.0 before (T1) and after (T2) 16-week reduced sitting intervention**.

| **Intervention (I)** | **Pre-intervention** | **Post-intervention** | **P-values** |
| --- | --- | --- | --- |
| **Breaks (B)** | **SIT** | **BREAKS** | **SIT** | **BREAKS** |  |  |  |  |
| **Acute (A)** | **0h** | **3h** | **0h** | **3h** | **0h** | **3h** | **0h** | **3h** | **A** | **A\*B** | **I** | **A\*B\*I** |
| Peripheral vascular flow and function |
| Blood flow patterns |
|   | Basal flow (ml/min) | 95±31 | 81±31 | 94±31 | 93±31 | 109±31 | 128±33 | 63±33 | 54±31 | 0.97 | 0.85 | 0.92 | 0.41 |
|   | Antegrade flow (ml/min) | 172±29 | 139±29 | 146±29 | 146±29 | 171±29 | 204±31 | 155±31 | 135±29 | 0.81 | 0.80 | 0.43 | 0.53 |
|   | Retrograde flow (ml/min) | -77±16 | -53±16 | -53±16 | -54±16 | -62±16 | -82±17 | -91±17 | -81±16 | 0.65 | 0.86 | **<0.01** | **0.04** |
| Flow-mediated dilation |
|   | Baseline diameter (mm) | 7.1±0.4 | 6.9±0.4 | 6.8±0.4 | 6.7±0.4 | 6.9±0.4 | 6.8±0.4 | 7.0±0.4 | 6.8±0.4 | 0.22 | 0.82 | 0.96 | 0.78 |
|   | Peak diameter (mm) | 7.3±0.4 | 7.1±0.4 | 7.0±0.4 | 7.0±0.4 | 7.1±0.4 | 7.1±0.4 | 7.2±0.4 | 7.1±0.4 | 0.40 | 0.89 | 0.85 | 0.85 |
|   | FMD (%) | 2.6±0.6 | 3.1±0.6 | 3.0±0.6 | 3.9±0.6 | 3.0±0.6 | 4.0±0.6 | 3.1±0.7 | 3.9±0.6 | 0.05 | 0.88 | 0.44 | 0.89 |
|   | SRauc (103) | 2.1±1.4 | 6.6±1.3 | 3.0±1.3 | 2.7±1.3 | 5.1±1.3 | 4.8±1.4 | 5.7±1.5 | 5.9±1.3 | 0.28 | 0.24 | 0.06 | 0.18 |
|   | FMD corrected for diameter | 2.7±0.6 | 3.1±0.5 | 2.9±0.5 | 3.9±0.5 | 3.0±0.5 | 4.3±0.6 | 3.1±0.6 | 3.5±0.5 | 0.08 | 0.79 | 0.44 | 0.61 |
|   | FMD corrected for SRauc | 2.5±0.6 | 3.1±0.6 | 2.9±0.6 | 4.0±0.6 | 3.0±0.6 | 4.4±0.6 | 3.0±0.7 | 3.5±0.6 | 0.06 | 0.72 | 0.45 | 0.53 |
| Cerebrovascular flow and function |
| At rest |
|   | MAP (mmHg) | 95±2 | 98±2 | 95±2 | 100±2 | 99±2 | 101±2 | 100±2 | 102±2 | **0.01** | 0.85 | **<0.01** | 0.57 |
|   | MCAv (cm/s) | 53.6±4.5 | 43.1±4.6 | 46.2±4.5 | 49.0±4.6 | 47.8±4.5 | 54.0±4.5 | 52.0±4.5 | 49.3±4.5 | 0.47 | 0.46 | 0.05 | **<0.01** |
|   | CVCi (cm/s/mmHg) | 0.57±0.05 | 0.44±0.05 | 0.49±0.05 | 0.47±0.05 | 0.48±0.05 | 0.54±0.05 | 0.53±0.05 | 0.50±0.05 | 0.07 | 0.28 | 0.80 | **<0.01** |
|  | Gain BRS | 5.4±1.4 | 4.7±1.4 | 3.2±1.4 | 3.4±1.4 | 8.3±1.4 | 3.7±1.7 | 3.7±1.4 | 3.8±1.5 | 0.17 | 0.13 | 0.44 | 0.32 |
| During hypocapnia |
|   | MAP (mmHg) | 80±3 | 85±3 | 84±3 | 86±3 | 89±3 | 89±3 | 90±3 | 91±3 | 0.30 | 0.76 | **<0.01** | 0.58 |
|   | MCAv (cm/s) | 37.1±2.9 | 30.5±3.0 | 32.9±2.9 | 31.9±2.9 | 34.6±2.9 | 36.8±2.9 | 37.1±2.9 | 33.1±2.9 | **0.02** | 0.89 | **0.02** | **<0.01** |
|   | CVCi (cm/s/mmHg) | 0.47±0.03 | 0.36±0.04 | 0.40±0.03 | 0.38±0.04 | 0.39±0.03 | 0.42±0.03 | 0.41±0.03 | 0.38±0.04 | **<0.01** | 0.65 | 0.90 | **<0.01** |
| During hypercapnia |
|   | MAP (mmHg) | 114±3 | 112±3 | 114±3 | 116±3 | 118±3 | 123±3 | 121±3 | 119±3 | 0.68 | 0.83 | **<0.01** | 0.19 |
|   | MCAv (cm/s) | 67.8±6.4 | 54.5±6.7 | 61.3±6.2 | 62.3±6.3 | 67.0±6.2 | 72.3±6.2 | 73.7±6.2 | 70.3±6.3 | 0.25 | 0.53 | **<0.01** | **0.01** |
|   | CVCi (cm/s/mmHg) | 0.63±0.06 | 0.48±0.06 | 0.54±0.05 | 0.54±0.05 | 0.57±0.05 | 0.59±0.05 | 0.65±0.05 | 0.58±0.06 | **0.02** | 0.47 | **0.03** | **0.01** |
| Pooled analysis |
|   | MAP (mmHg) | 96±2 | 98±2 | 98±2 | 101±2 | 102±2 | 104±2 | 104±2 | 104±2 | 0.05 | 0.81 | **<0.01** | 0.41 |
|   | MCAv (cm/s) | 52.7±4.2 | 43.1±4.3 | 46.8±4.2 | 47.7±4.2 | 49.8±4.2 | 54.4±4.2 | 54.3±4.2 | 51.1±4.2 | 0.09 | 0.52 | **<0.01** | **<0.01** |
|   | CVCi (cm/s/mmHg) | 0.56±0.04 | 0.43±0.04 | 0.48±0.04 | 0.46±0.04 | 0.48±0.04 | 0.51±0.04 | 0.53±0.04 | 0.49±0.04 | **<0.01** | 0.40 | 0.06 | **<0.01** |
| Cerebrovascular vasomotor reactivity (CVMR) |
|   | MAP reactivity | 0.35±0.03 | 0.28±0.03 | 0.31±0.03 | 0.30±0.03 | 0.29±0.03 | 0.33±0.03 | 0.32±0.03 | 0.28±0.03 | 0.41 | 0.73 | 0.81 | 0.13 |
|   | MCAv reactivity | 0.60±0.06 | 0.56±0.06 | 0.61±0.05 | 0.66±0.06 | 0.68±0.05 | 0.65±0.05 | 0.71±0.05 | 0.71±0.05 | 0.85 | 0.33 | **<0.01** | 0.63 |
|   | CVCi reactivity | 0.33±0.06 | 0.28±0.06 | 0.30±0.04 | 0.36±0.05 | 0.32±0.05 | 0.32±0.04 | 0.43±0.05 | 0.42±0.05 | 0.92 | 0.45 | 0.10 | 0.37 |
| Slow sit-stands |
|   | MAP (mmHg) | 98±2 | 100±2 | 97±2 | 102±2 | 105±2 | 105±2 | 104±2 | 106±2 | **0.04** | 0.38 | **<0.01** | 0.97 |
|   | MCAv (cm/s) | 49.9±4.7 | 42.3±4.5 | 42.5±4.2 | 49.0±4.3 | 45.6±4.3 | 50.8±4.3 | 49.3±4.3 | 44±4.2 | 0.87 | 0.63 | 0.42 | **<0.01** |
|  | CVCi (cm/s/mmHg) | 0.51±0.05 | 0.42±0.05 | 0.44±0.04 | 0.48±0.04 | 0.43±0.04 | 0.48±0.04 | 0.48±0.04 | 0.42±0.04 | 0.45 | 0.77 | 0.58 | **<0.01** |
|  | Gain | 0.42±0.06 | 0.41±0.06 | 0.41±0.05 | 0.45±0.05 | 0.36±0.05 | 0.43±0.05 | 0.39±0.05 | 0.35±0.05 | 0.62 | 0.68 | 0.17 | 0.15 |
|  | nGain | 0.87±0.10 | 0.95±0.09 | 0.97±0.08 | 0.93±0.09 | 0.79±0.09 | 0.84±0.09 | 0.77±0.09 | 0.77±0.08 | 0.62 | 0.38 | **0.01** | 0.71 |
|  | Phase | 45±7 | 38±7 | 42±6 | 45±6 | 42±6 | 50±6 | 37±6 | 42±6 | 0.66 | 0.69 | 0.91 | 0.41 |
|   | Coherence | 0.64±0.06 | 0.63±0.06 | 0.64±0.05 | 0.63±0.05 | 0.56±0.05 | 0.61±0.05 | 0.62±0.05 | 0.57±0.05 | 0.76 | 0.43 | 0.12 | 0.37 |
|  | Gain BRS | 3.3±1.4 | 3.1±1.4 | 2.3±1.3 | 3.0±1.3 | 4.4±1.3 | 3.0±1.3 | 3.9±1.3 | 3.1±1.3 | 0.54 | 0.55 | 0.28 | 0.94 |
| 0.05Hz repeated sit-stands |
|   | MAP (mmHg) | 99±2 | 102±2 | 98±2 | 102±2 | 104±2 | 107±3 | 106±2 | 108±2 | 0.05 | 0.94 | **<0.01** | 0.62 |
|   | MCAv (cm/s) | 49.3±4.6 | 42.1±4.6 | 42.0±4.6 | 42.1±4.5 | 46±4.6 | 47.2±5.1 | 49.5±4.5 | 46.4±4.8 | 0.32 | 0.72 | 0.13 | 0.20 |
|  | CVCi (cm/s/mmHg) | 0.50±0.05 | 0.41±0.05 | 0.43±0.05 | 0.42±0.05 | 0.45±0.05 | 0.44±0.05 | 0.47±0.05 | 0.44±0.05 | 0.15 | 0.62 | 0.64 | 0.29 |
|  | Gain | 0.59±0.08 | 0.56±0.08 | 0.56±0.08 | 0.57±0.08 | 0.6±0.08 | 0.56±0.09 | 0.62±0.08 | 0.51±0.08 | 0.25 | 0.85 | 0.98 | 0.50 |
|  | nGain | 1.16±0.12 | 1.34±0.12 | 1.33±0.12 | 1.38±0.11 | 1.31±0.12 | 1.20±0.13 | 1.22±0.11 | 1.05±0.12 | 0.82 | 0.41 | 0.07 | 0.76 |
|  | Phase | 49±4 | 46±4 | 48±4 | 49±4 | 49±4 | 52±5 | 47±4 | 45±5 | 0.89 | 0.98 | 0.98 | 0.41 |
|   | Coherence | 0.80±0.05 | 0.86±0.05 | 0.81±0.05 | 0.89±0.04 | 0.79±0.05 | 0.77±0.05 | 0.78±0.04 | 0.81±0.05 | 0.23 | 0.63 | 0.09 | 0.76 |
|  | Gain BRS | 3.4±1.0 | 4.7±1.0 | 3.7±1.0 | 4.3±1.0 | 6.1±1.0 | 3.0±1.2 | 2.8±1.0 | 4.1±1.1 | 0.94 | 0.11 | 0.97 | **0.04** |

n=9. Data are reported as mean±SEM.