**Table SDC** **1.** **Additional Cardiovascular and Metabolic Markers.**

Data for NT, OT, and OU groups reported as mean (SD). \* P<0.05; \*\*\* P<0.001. Regarding significance, NT vs. OU is denoted on NT and NT vs. OT is denoted on OT. Bold font denotes significant ANOVA differences.

cIMT: carotid intima media thickness; VEGF: vascular endothelial growth factor; MMP-9: matrix metallopeptidase-9; PAI-1 total: plasminogen activator inhibitor-1 total; sE-selectin: soluble E-selectin; sICAM-1: soluble intercellular adhesion molecule-1; sVCAM-1: soluble vascular cell adhesion molecule-1; MPO: myeloperoxidase; MCP-1: monocyte chemoattractant protein-1; IL-8: interleukin-8; TNF-α: tumor necrosis factor-α.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Outcomes** | **NT** | **OT** | **OU** | **P-Value** |
|
| **cIMT outer wall (mm)** | 0.52 (0.04) | 0.52 (0.06) | 0.51 (0.04) | 0.795 |
| **cIMT inner wall (mm)** | 0.54 (0.04) | 0.54 (0.05) | 0.53 (0.05) | 0.276 |
| **VEGF (pg/mL)** | 561.7 (694.8) | 562.4 (452.2) | 622.1 (1143.8) | 0.979 |
| **MMP-9 (ng/mL)** | 271.6 (155.8) | 231.3 (109.6) | 216.6 (85.3) | 0.204 |
| **PAI-1 total (ng/mL)** | 136.3 (55.9) | 131.1 (38.8) | 143.4 (73.9) | 0.711 |
| **sE-Selectin (ng/mL)** | 38.2 (20.6) | 36.7 (15.4) | 38.0 (13.3) | 0.932 |
| **sICAM-1 (ng/mL)** | 134.1 (112.3) | 121.6 (31.7) | 161.6 (81.3) | 0.152 |
| **sVCAM-1 (ng/mL)** | 1057.2 (379.6)\* | 871.6 (206.9)\* | 888.4 (342.7) | **0.049** |
| **MPO (ng/mL)** | 363.8 (244.8)\*\*\* | 256.3 (114.1)\* | 173.2 (159.0) | **0.0003** |
| **MCP-1 (pg/mL)** | 434.0 (194.5) | 421.4 (189.6) | 456.1 (205.6) | 0.794 |
| **IL-8 (pg/mL)** | 65.1 (82.4) | 49.3 (46.2) | 67.6 (173.6) | 0.847 |
| **TNF-α (pg/mL)** | 33.9 (69.7) | 23.6 (34.7) | 29.1 (59.7) | 0.832 |
| **Cortisol (ug/dL)** | 16.9 (5.8) | 17.1 (4.0) | 14.6 (6.0) | 0.147 |
| **Free Testosterone (ng/dL)** | 10.7 (3.7) | 10.2 (3.5) | 12.4 (3.5) | 0.059 |

**Table SDC** **2. Strength and Body Fat Correlation Analyses.**

Relative strength and body fat percentage associations with cardiovascular and metabolic phenotypes that differed between the groups.

Significant associations were bolded if p-value≤ 0.001.

PWV: pulse wave velocity; AIx: aortic augmentation index; SEVR: sub-endocardial viability ratio; cSBP: central systolic blood pressure; cDBP: central diastolic blood pressure; bSBP: brachial systolic blood pressure; bDBP: brachial diastolic blood pressure; HDL: high-density lipoproteins; LDL: low-density lipoproteins; TG: triglyceride; oxLDL: oxidized low-density lipoproteins; HOMA: homeostasis model assessment; QUICKI: quantitative insulin sensitivity check index; SHBG: sex hormone-binding globulin; FAI: free androgen index (ratio calculated by 100\*(total testosterone/SHBG)).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Outcomes** | **Relative Strength** | | **Percent Body Fat** | |
| **R-Value** | **P-value** | **R-Value** | **P-Value** |
| **PWV (m/s)** | -0.11 | 0.242 | 0.14 | 0.143 |
| **AIx** | -0.02 | 0.885 | 0.12 | 0.247 |
| **SEVR** | **0.37** | **<0.0001** | **-0.47** | **<0.0001** |
| **cSBP (mmHg)** | -0.18 | 0.081 | 0.29 | 0.005 |
| **cDBP (mmHg)** | -0.18 | 0.082 | 0.26 | 0.019 |
| **bSBP (mmHg)** | -0.18 | 0.085 | **0.32** | **0.001** |
| **bDBP (mmHg)** | -0.22 | 0.032 | 0.29 | 0.008 |
| **Heart Rate (bpm)** | -0.22 | 0.029 | **0.33** | **<0.0001** |
| **Cholesterol (mg/dL)** | -0.21 | 0.045 | 0.28 | 0.004 |
| **HDL (mg/dL)** | **0.40** | **<0.0001** | **-0.51** | **<0.0001** |
| **LDL (mg/dL)** | -0.24 | 0.025 | **0.33** | 0.002 |
| **TG (mg/dL)** | **-0.43** | **<0.0001** | **0.55** | **<0.0001** |
| **oxLDL (U/L)** | **-0.40** | **<0.0001** | **0.52** | **<0.0001** |
| **CRP (mg/L)** | -0.28 | 0.012 | 0.36 | 0.009 |
| **MPO (ng/mL)** | **0.29** | **<0.0001** | **-0.38** | **<0.0001** |
| **Fasting Glucose (mg/dL)** | **-0.32** | **0.001** | **0.49** | **<0.0001** |
| **Fasting Insulin (mU/mL)** | -0.28 | 0.004 | **0.59** | **<0.0001** |
| **HOMA** | 0.16 | 0.218 | **0.62** | **<0.0001** |
| **QUICKI** | 0.23 | 0.061 | **-0.42** | **<0.0001** |
| **Leptin (pM)** | -0.39 | 0.003 | **0.64** | **<0.0001** |
| **Adiponectin (ng/mL)** | 0.13 | 0.161 | -0.24 | 0.003 |
| **Total Amylin (pmol/L)** | **-0.33** | **0.001** | **0.52** | **<0.0001** |
| **SHBG (nmol/L)** | **0.47** | **<0.0001** | **-0.61** | **<0.0001** |
| **Testosterone (ng/dL)** | 0.25 | 0.006 | **-0.36** | **<0.0001** |
| **FAI** | **-0.46** | **<0.0001** | **0.52** | **<0.0001** |