**Supplemental Table 1.** Linear regression analysis for the association between anthropometrics, physiological and behavioral baseline characteristics and energy intake during the *ad libitum* test meal following the rest condition.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **All participants** | | | | | **Men** | | | | | **Women** | | | | |
|  | **Energy intake (kcal)** | | | | | **Energy intake (kcal)** | | | | | **Energy intake (kcal)** | | | | |
|  | **R2** | **B** | **SE** | **β** | ***P*** | **R2** | **B** | **SE** | **β** | ***P*** | **R2** | **B** | **SE** | **β** | ***P*** |
| Sex a | 0.183 | 326.3 | 92.9 | 0.43 | **<0.001** |  |  |  |  |  |  |  |  |  |  |
| Age, years | 0.005 | 10.9 | 20.7 | 0.07 | 0.600 | 0.036 | 29.2 | 30.9 | 0.19 | 0.354 | 0.004 | 7.8 | 23.7 | 0.06 | 0.744 |
| Weight, kg | 0.122 | 13.2 | 4.8 | 0.35 | **0.008** | 0.133 | 12.1 | 6.3 | 0.36 | 0.067 | 0.003 | −2.5 | 8.7 | −0.05 | 0.772 |
| BMI, kg/m2 | 0.050 | 36.4 | 21.4 | 0.22 | 0.095 | 0.059 | 34.2 | 27.8 | 0.24 | 0.230 | 0.032 | 28.1 | 28.8 | 0.18 | 0.337 |
| Fat-free mass, kg | 0.141 | 15.9 | 5.3 | 0.38 | **0.004** | 0.127 | 15.1 | 8.1 | 0.36 | 0.074 | 0.062 | −17.5 | 12.7 | −0.25 | 0.177 |
| Total body fat, % | 0.003 | −3.6 | 8.7 | −0.06 | 0.681 | 0.028 | 11.7 | 14.1 | 0.17 | 0.414 | 0.057 | 15.3 | 11.6 | 0.24 | 0.196 |
| ***Physical activity behavior and cardiorespiratory fitness*** | | | | | | | | | | | | | | | |
| Habitual exercise, min/week | 0.056 | −0.5 | 0.3 | −0.24 | 0.084 | 0.003 | −0.2 | 0.6 | −0.06 | 0.790 | 0.137 | −0.6 | 0.3 | −0.37 | **0.048** |
| Habitual exercise days/week | 0.000 | −1.4 | 26.5 | −0.01 | 0.959 | 0.002 | 9.7 | 39.9 | 0.05 | 0.809 | 0.024 | −25.6 | 30.1 | −0.16 | 0.404 |
| MVPA, min/week | 0.006 | 0.2 | 0.4 | 0.08 | 0.572 | 0.008 | 0.2 | 0.5 | 0.09 | 0.655 | 0.002 | −0.1 | 0.5 | −0.04 | 0.831 |
| Relative VO2peak, mL/kg/min | 0.069 | 16.3 | 8.1 | 0.26 | 0.058 | 0.131 | 23.5 | 12.4 | 0.36 | 0.069 | 0.057 | −15.0 | 11.4 | −0.24 | 0.197 |
| Absolute VO2peak, L/min | 0.185 | 270.9 | 76.6 | 0.43 | **<0.001** | 0.278 | 320.8 | 105.5 | 0.53 | **0.006** | 0.083 | −288.3 | 178.1 | −0.29 | 0.116 |
| Maximal power, W | 0.188 | 3.5 | 1.0 | 0.43 | **<0.001** | 0.289 | 4.2 | 1.4 | 0.54 | **0.005** | 0.009 | −0.9 | 1.8 | −0.10 | 0.614 |
| ***Appetitive traits*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cognitive Restraint | 0.007 | −15.0 | 23.7 | −0.09 | 0.530 | 0.061 | −36.0 | 28.5 | −0.25 | 0.222 | 0.050 | 41.4 | 33.5 | 0.22 | 0.226 |
| Uncontrolled Eating | 0.050 | 18.4 | 10.8 | 0.22 | 0.095 | 0.015 | 9.2 | 15.4 | 0.12 | 0.558 | 0.101 | 23.3 | 12.9 | 0.32 | 0.081 |
| Emotional Eating | 0.005 | 8.5 | 15.7 | 0.07 | 0.592 | 0.001 | −4.5 | 28.0 | −0.03 | 0.874 | 0.084 | 25.9 | 15.8 | 0.29 | 0.113 |
| ***Appetite-regulating hormones*** | | | | | | | | | | | | | | | |
| GLP-1, pg/mL | 0.069 | −18.6 | 11.2 | −0.26 | 0.105 | 0.006 | −7.3 | 24.4 | −0.08 | 0.770 | 0.154 | −16.2 | 8.3 | −0.39 | 0.064 |
| PYY, pg/mL | 0.017 | 1.0 | 1.3 | 0.13 | 0.435 | 0.255 | 4.3 | 2.0 | 0.51 | 0.056 | 0.045 | −1.0 | 1.0 | −0.21 | 0.331 |
| Ghrelin, pg/mL | 0.000 | 0.0 | 0.2 | 0.02 | 0.912 | 0.057 | 0.2 | 0.2 | 0.24 | 0.392 | 0.008 | −0.1 | 0.2 | −0.09 | 0.701 |
| Adiponectin, ng/mL | 0.002 | −2.2 | 8.8 | −0.04 | 0.802 | 0.030 | 10.9 | 16.5 | 0.17 | 0.502 | 0.047 | 7.5 | 7.5 | 0.22 | 0.330 |

Bold font indicates statistical significance (*P*<0.05). Dependent variable in all models: Energy intake during the *ad libitum* test meal following the rest condition (kcal).

a Female = 0, male = 1.

Abbreviations: B, unstandardized regression coefficient; β, standardized regression coefficient; BMI, body mass index; GLP-1, Glucagon-like Peptide 1; MVPA, moderate-to-vigorous physical activity; PYY, peptide YY; SE, standard error.