**Supplementary table 1: Characteristics of the participants in the CALERIE study**

|  |  |  |
| --- | --- | --- |
| **Sample characteristics** | **N** | **%** |
| **Age, years1** | 38.55 | 7.16 |
| **Sex** |  |  |
| Male | 58 | 30.37 |
| Female | 133 | 69.63 |
| **Race** |  |  |
| White | 147 | 76.96 |
| African-American | 25 | 13.09 |
| Asian | 10 | 5.24 |
| Other | 9 | 4.71 |
| **Marital Status** |  |  |
| Yes | 117 | 61.26 |
| No | 74 | 38.74 |
| **Education Attainment** |  |  |
| College degree | 94 | 49.21 |
| Graduate degree | 46 | 24.08 |
| Doctoral degree | 15 | 7.85 |
| Some college | 29 | 15.18 |
| Grade 12 or less | 7 | 3.66 |
| 1 Reported data: mean, standard deviation. |  |  |

**Supplementary Table 2: Number of outliers removed using Z-Score method, by metabolic biomarker and time from baseline (n=191)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **12 months from baseline** |  | **24 months from baseline** |  | **24 months from 12 months** |
| **Original****N** | **Reduced****N** | **Outliers****Removed** | **%****Retained** |  | **Original****N** | **Reduced****N** | **Outliers****Removed** | **%****Retained** |  | **Original****N** | **Reduced****N** | **Outliers****Removed** | **%****Retained** |
| **Metabolic biomarkers** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LDL Cholesterol(mg/dL) | 187 | 187 | 0 | 100.00 |  | 190 | 190 | 0 | 100.00 |  | 188 | 187 | 1 | 99.47 |
| HDL Cholesterol(mg/dL) | 188 | 187 | 1 | 99.47 |  | 190 | 188 | 2 | 98.95 |  | 189 | 187 | 2 | 98.94 |
| Triglyceride(mg/dL) | 188 | 186 | 2 | 98.94 |  | 190 | 187 | 3 | 98.42 |  | 189 | 185 | 4 | 97.88 |
| Glucose, fasting(mg/dL) | 188 | 187 | 1 | 99.47 |  | 190 | 187 | 3 | 98.42 |  | 189 | 187 | 2 | 98.94 |
| Insulin, fasting(ulU/mL) | 188 | 186 | 2 | 98.94 |  | 190 | 190 | 0 | 100.00 |  | 189 | 189 | 0 | 100.00 |
| AUC Glucose(mg-hr/dL) | 145 | 144 | 1 | 99.31 |  | 147 | 147 | 0 | 100.00 |  | 182 | 182 | 0 | 100.00 |
| AUC Insulin(ulU-hr/mL) | 106 | 105 | 1 | 99.06 |  | 133 | 131 | 2 | 98.50 |  | 156 | 154 | 2 | 98.72 |
| C-Reactive Protein(ug/mL) | 188 | 184 | 4 | 97.87 |  | 190 | 187 | 3 | 98.42 |  | 189 | 185 | 4 | 97.88 |
| TNF-$α$(pg/mL) | 188 | 187 | 1 | 100.00 |  | 188 | 185 | 3 | 100.00 |  | 187 | 185 | 2 | 100.00 |
| T3 (Triiodothyronine)(ng/dL) | 188 | 185 | 3 | 98.40 |  | 190 | 188 | 2 | 98.95 |  | 189 | 187 | 2 | 98.94 |
| Cortisol(ug/dL) | 188 | 186 | 2 | 98.94 |  | 190 | 188 | 2 | 98.95 |  | 189 | 186 | 3 | 98.41 |
| IGF-1(ng/mL) | 187 | 186 | 1 | 99.47 |  | 189 | 188 | 1 | 99.47 |  | 189 | 185 | 4 | 97.88 |
| IGFBP-1(pg/mL) | 188 | 183 | 5 | 97.34 |  | 190 | 185 | 5 | 97.37 |  | 189 | 180 | 9 | 95.24 |

**Supplementary table 3.1: Pairwise correlation matrix between Adiposity measures, changes at 12 months from baseline (n=191)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Body weight****(kg)** | **Weight loss****(percentage)** | **Body mass index** **(kg/m2)** | **Waist circumference** **(cm)** | **Fat mass** **(kg)** | **Fat-free mass** **(kg)** | **Leptin** **(pg/mL)** | **Total daily****energy intake** | **Body fat** **percentage** |
| **Body weight****(kg)** | 1.000.190 | . | . | . | . | . | . | . | . |
| **Weight loss****(percentage)** | 0.983< 0.001190 | 1.000.190 | . | . | . | . | . | . | . |
| **Body mass index** **(kg/m2)** | 0.938< 0.001190 | 0.947< 0.001190 | 1.000.191 | . | . | . | . | . | . |
| **Waist circumference** **(cm)** | 0.854< 0.001189 | 0.833< 0.001189 | 0.810< 0.001189 | 1.000.189 | . | . | . | . | . |
| **Fat mass** **(kg)** | 0.939< 0.001190 | 0.944< 0.001190 | 0.897< 0.001190 | 0.789< 0.001189 | 1.000.190 | . | . | . | . |
| **Fat-free mass** **(kg)** | 0.757< 0.001190 | 0.734< 0.001190 | 0.702< 0.001190 | 0.695< 0.001189 | .0612< 0.001190 | 1.000.190 | . | . | . |
| **Leptin** **(pg/mL)** | 0.447< 0.001188 | 0.494< 0.001188 | 0.519< 0.001188 | 0.282< 0.001187 | 0.441< 0.001188 | 0.258< 0.001188 | 1.000.188 | . | . |
| **Total daily****energy intake** | 0.692< 0.001184 | 0.682< 0.001184 | 0.618< 0.001184 | 0.559< 0.001184 | 0.634< 0.001184 | 0.580< 0.001184 | 0.261< 0.001182 | 1.000.188 | . |
| **Body fat** **percentage** | 0.759< 0.001190 | 0.792< 0.001190 | 0.745< 0.001190 | 0.655< 0.001189 | 0.920< 0.001190 | 0.436< 0.001190 | 0.310< 0.001188 | 0.503< 0.001184 | 1.000.190 |

1 Values in cells are, in order: Pearson correlation coefficient ($ρ$), p-value of significance (where null hypothesis is H0: $ρ$ = 0), number of observations with non-missing pairs of values.

2 Cells are shaded from red to green based on the magnitude of the absolute value of the Pearson correlation coefficient ($ρ$), from weakest correlation (red) to strongest correlation (green).

**Supplementary table 3.2: Pairwise correlation matrix between Adiposity measures, changes at 24 months from baseline (n=191)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Body weight****(kg)** | **Weight loss****(percentage)** | **Body mass index** **(kg/m2)** | **Waist circumference** **(cm)** | **Fat mass** **(kg)** | **Fat-free mass** **(kg)** | **Leptin** **(pg/mL)** | **Total daily****energy intake** | **Body fat** **percentage** |
| **Body weight****(kg)** | 1.000.191 | . | . | . | . | . | . | . | . |
| **Weight loss****(percentage)** | 0.987< 0.001191 | 1.000.191 | . | . | . | . | . | . | . |
| **Body mass index** **(kg/m2)** | 0.992< 0.001191 | 0.996< 0.001191 | 1.000.191 | . | . | . | . | . | . |
| **Waist circumference** **(cm)** | 0.859< 0.001191 | 0.844< 0.001191 | 0.823< 0.001191 | 1.000.191 | . | . | . | . | . |
| **Fat mass** **(kg)** | 0.912< 0.001191 | 0.921< 0.001191 | 0.916< 0.001191 | 0.769< 0.001191 | 1.000.191 | . | . | . | . |
| **Fat-free mass** **(kg)** | 0.681< 0.001191 | 0.662< 0.001191 | 0.671< 0.001191 | 0.607< 0.001191 | 0.553< 0.001191 | 1.000.191 | . | . | . |
| **Leptin** **(pg/mL)** | 0.566< 0.001190 | 0.607< 0.001190 | 0.607< 0.001190 | 0.477< 0.001190 | 0.529< 0.001190 | 0.343< 0.001190 | 1.000.190 | . | . |
| **Total daily****energy intake** | 0.578< 0.001181 | 0.567< 0.001181 | 0.570< 0.001181 | 0.460< 0.001181 | 0.530< 0.001181 | 0.518< 0.001181 | 0.296< 0.001180 | 1.000.186 | . |
| **Body fat** **percentage** | 0.727< 0.001191 | 0.761< 0.001191 | 0.739< 0.001191 | 0.614< 0.001191 | 0.929< 0.001191 | 0.396< 0.001191 | 0.368< 0.001190 | 0.418< 0.001181 | 1.000.191 |

1 Values in cells are, in order: Pearson correlation coefficient ($ρ$), p-value of significance (where null hypothesis is H0: $ρ$ = 0), number of observations with non-missing pairs of values.

2 Cells are shaded from red to green based on the magnitude of the absolute value of the Pearson correlation coefficient ($ρ$), from weakest correlation (red) to strongest correlation (green).

**Supplementary table 3.3: Pairwise correlation matrix between Adiposity measures, changes at 24 months from 12 months (n=191)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Body weight****(kg)** | **Weight loss****(percentage)** | **Body mass index** **(kg/m2)** | **Waist circumference** **(cm)** | **Fat mass** **(kg)** | **Fat-free mass** **(kg)** | **Leptin** **(pg/mL)** | **Total daily****energy intake** | **Body fat** **percentage** |
| **Body weight****(kg)** | 1.0000.000190 | . | . | . | . | . | . | . | . |
| **Weight loss****(percentage)** | 0.990< 0.001190 | 1.0000.000190 | . | . | . | . | . | . | . |
| **Body mass index** **(kg/m2)** | 0.754< 0.001190 | 0.759< 0.001190 | 1.0000.000191 | . | . | . | . | . | . |
| **Waist circumference** **(cm)** | 0.663< 0.001189 | 0.659< 0.001189 | 0.463< 0.001189 | 1.0000.000189 | . | . | . | . | . |
| **Fat mass** **(kg)** | 0.779< 0.001190 | 0.771< 0.001190 | 0.648< 0.001190 | 0.538< 0.001189 | 1.0000.000190 | . | . | . | . |
| **Fat-free mass** **(kg)** | 0.422< 0.001190 | 0.403< 0.001190 | 0.376< 0.001190 | 0.298< 0.001189 | 0.2400.001190 | 1.0000.000190 | . | . | . |
| **Leptin** **(pg/mL)** | 0.617< 0.001189 | 0.642< 0.001189 | 0.545< 0.001189 | 0.448< 0.001188 | 0.550< 0.001189 | 0.2730.000189 | 1.0000.000189 | . | . |
| **Total daily****energy intake** | 0.449< 0.001180 | 0.443< 0.001180 | 0.361< 0.001180 | 0.322< 0.001180 | 0.279< 0.001180 | 0.2080.005180 | 0.1640.029179 | 1.0000.000185 | . |
| **Body fat** **percentage** | 0.445< 0.001190 | 0.443< 0.001190 | 0.413< 0.001190 | 0.329< 0.001189 | 0.897< 0.001190 | 0.0240.740190 | 0.351< 0.001189 | 0.1180.113180 | 1.0000.000190 |

1 Values in cells are, in order: Pearson correlation coefficient ($ρ$), p-value of significance (where null hypothesis is H0: $ρ$ = 0), number of observations with non-missing pairs of values.

2 Cells are shaded from red to green based on the magnitude of the absolute value of the Pearson correlation coefficient ($ρ$), from weakest correlation (red) to strongest correlation (green).

**Supplementary table 4.1: Pairwise correlation matrix of Adiposity with Metabolic Biomarkers, changes at 24 months from baseline (n=191)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Total mass** **(kg)** | **Weight loss****(percentage)** | **Body mass index** **(kg/m2)** | **Waist circumference** **(cm)** | **Fat mass** **(kg)** | **Fat-free mass** **(kg)** | **Leptin** **(pg/mL)** | **Total daily****energy intake** | **Body fat** **percentage** |
| **LDL Cholesterol** **(mg/dL)** | **r** | 0.359 | 0.352 | 0.359 | 0.335 | 0.341 | 0.199 | 0.029 | 0.111 | 0.301 |
| **p-value** | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | 0.006 | 0.689 | 0.138 | < 0.001 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **HDL Cholesterol** **(mg/dL)** | **r** | -0.331 | -0.318 | -0.319 | -0.271 | -0.255 | -0.204 | -0.138 | -0.119 | -0.183 |
| **p-value** |  0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | 0.005 | 0.057 | 0.113 | 0.011 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **Triglyceride** **(mg/dL)** | **r** | 0.386 | 0.366 | 0.374 | 0.358 | 0.315 | 0.324 | 0.166 | 0.152 | 0.234 |
| **p-value** | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | 0.022 | 0.042 | 0.001 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **Glucose, fasting** **(mg/dL)** | **r** | 0.040 | 0.033 | 0.034 | 0.076 | -0.003 | -0.036 | -0.065 | -0.019 | -0.006 |
| **p-value** | 0.580 | 0.655 | 0.638 | 0.297 | 0.964 | 0.624 | 0.374 | 0.804 | 0.932 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **Insulin, fasting** **(ulU/mL)** | **r** | 0.481 | 0.464 | 0.473 | 0.402 | 0.441 | 0.317 | 0.279 | 0.290 | 0.357 |
| **p-value** | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **AUC Glucose** **(mg-hr/dL)** | **r** | 0.188 | 0.195 | 0.198 | 0.155 | 0.209 | 0.101 | 0.160 | 0.065 | 0.155 |
| **p-value** | 0.022 | 0.018 | 0.016 | 0.061 | 0.011 | 0.224 | 0.053 | 0.441 | 0.061 |
| **n** | 147 | 147 | 147 | 147 | 147 | 147 | 147 | 141 | 147 |
| **AUC Insulin** **(ulU-hr/mL)** | **r** | 0.479 | 0.459 | 0.464 | 0.425 | 0.466 | 0.332 | 0.354 | 0.215 | 0.382 |
| **p-value** | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | 0.015 | < 0.001 |
| **n** | 133 | 133 | 133 | 133 | 133 | 133 | 133 | 127 | 133 |
| **C-Reactive Protein** **(ug/mL)** | **r** | 0.278 | 0.279 | 0.273 | 0.240 | 0.283 | 0.206 | 0.147 | 0.097 | 0.246 |
| **p-value** | < 0.001 | < 0.001 | < 0.001 | 0.001 | < 0.001 | 0.004 | 0.043 | 0.193 | 0.001 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **TNF-**$α$**(pg/mL)** | **r** | 0.144 | 0.158 | 0.147 | 0.159 | 0.148 | 0.052 | 0.112 | -0.004 | 0.149 |
| **p-value** | 0.049 | 0.031 | 0.044 | 0.029 | 0.043 | 0.476 | 0.127 | 0.959 | 0.041 |
| **n** | 188 | 188 | 188 | 188 | 188 | 188 | 188 | 178 | 188 |
| **T3 (Triiodothyronine)****(ng/dL)** | **r** | 0.203 | 0.209 | 0.203 | 0.188 | 0.250 | 0.098 | 0.191 | 0.173 | 0.260 |
| **p-value** | 0.005 | 0.004 | 0.005 | 0.010 | 0.001 | 0.179 | 0.008 | 0.020 | < 0.001 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **Cortisol** **(ug/dL)** | **r** | -0.160 | -0.156 | -0.160 | -0.136 | -0.178 | -0.052 | -0.170 | -0.001 | -0.139 |
| **p-value** | 0.028 | 0.032 | 0.027 | 0.062 | 0.014 | 0.478 | 0.019 | 0.995 | 0.055 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |
| **IGF-1** **(ng/mL)** | **r** | -0.053 | -0.068 | -0.069 | -0.027 | -0.075 | 0.080 | -0.184 | -0.103 | -0.072 |
| **p-value** | 0.469 | 0.355 | 0.344 | 0.708 | 0.308 | 0.272 | 0.011 | 0.170 | 0.326 |
| **n** | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 179 | 189 |
| **IGFBP-1** **(pg/mL)** | **r** | -0.243 | -0.225 | -0.237 | -0.264 | -0.230 | -0.180 | -0.042 | -0.175 | -0.175 |
| **p-value** | 0.001 | 0.002 | 0.001 | < 0.001 | 0.001 | 0.013 | 0.568 | 0.019 | 0.016 |
| **n** | 190 | 190 | 190 | 190 | 190 | 190 | 190 | 180 | 190 |

1 Values in cells are, in order: Pearson correlation coefficient ($ρ$), p-value of significance (where null hypothesis is H0: $ρ$ = 0), number of observations with non-missing pairs of values.

2 Cells are shaded based on the magnitude of the absolute value of the Pearson correlation coefficient ($ρ$), from weakest correlation (no highlight) to strongest correlation (orange).

**Supplementary table 4.2: Pairwise correlation matrix of Adiposity with Metabolic Biomarkers, changes at 24 months from 12 months (n=191)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Total mass** **(kg)** | **Weight loss****(percentage)** | **Body mass index** **(kg/m2)** | **Waist circumference** **(cm)** | **Fat mass** **(kg)** | **Fat-free mass** **(kg)** | **Leptin** **(pg/mL)** | **Total daily****energy intake** | **Body fat** **percentage** |
| **LDL Cholesterol** **(mg/dL)** | **r** | 0.189 | 0.203 | 0.196 | 0.111 | 0.196 | 0.210 | 0.127 | 0.106 | 0.168 |
| **p-value** | 0.009 | 0.005 | 0.007 | 0.131 | 0.007 | 0.004 | 0.083 | 0.161 | 0.021 |
| **n** | 188 | 188 | 188 | 187 | 188 | 188 | 188 | 178 | 188 |
| **HDL Cholesterol** **(mg/dL)** | **r** | -0.139 | -0.119 | -0.121 | -0.061 | -0.205 | 0.078 | 0.030 | 0.110 | -0.203 |
| **p-value** | 0.057 | 0.104 | 0.098 | 0.403 | 0.005 | 0.287 | 0.681 | 0.142 | 0.005 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **Triglyceride** **(mg/dL)** | **r** | 0.146 | 0.153 | 0.093 | 0.230 | 0.147 | 0.152 | 0.137 | 0.170 | 0.116 |
| **p-value** | 0.045 | 0.036 | 0.202 | 0.002 | 0.044 | 0.037 | 0.061 | 0.023 | 0.111 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **Glucose, fasting** **(mg/dL)** | **r** | 0.054 | 0.056 | 0.052 | 0.086 | -0.062 | 0.125 | <.001 | -0.019 | -0.119 |
| **p-value** | 0.464 | 0.448 | 0.480 | 0.239 | 0.399 | 0.086 | 0.996 | 0.796 | 0.103 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **Insulin, fasting** **(ulU/mL)** | **r** | 0.218 | 0.237 | 0.152 | 0.231 | 0.120 | 0.147 | 0.366 | -0.001 | 0.036 |
| **p-value** | 0.003 | 0.001 | 0.037 | 0.002 | 0.099 | 0.043 | < 0.001 | 0.985 | 0.625 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **AUC Glucose** **(mg-hr/dL)** | **r** | 0.127 | 0.133 | 0.174 | 0.155 | 0.153 | 0.097 | 0.126 | 0.059 | 0.135 |
| **p-value** | 0.088 | 0.074 | 0.019 | 0.038 | 0.039 | 0.192 | 0.091 | 0.442 | 0.070 |
| **n** | 182 | 182 | 182 | 181 | 182 | 182 | 182 | 173 | 182 |
| **AUC Insulin** **(ulU-hr/mL)** | **r** | 0.169 | 0.174 | 0.187 | 0.138 | 0.168 | 0.069 | 0.270 | 0.088 | 0.126 |
| **p-value** | 0.035 | 0.030 | 0.020 | 0.087 | 0.036 | 0.392 | 0.001 | 0.287 | 0.118 |
| **n** | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 149 | 156 |
| **C-Reactive Protein** **(ug/mL)** | **r** | 0.073 | 0.075 | 0.083 | 0.038 | 0.058 | 0.036 | 0.207 | -0.066 | 0.049 |
| **p-value** | 0.319 | 0.303 | 0.254 | 0.608 | 0.424 | 0.624 | 0.004 | 0.377 | 0.503 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **TNF-**$α$**(pg/mL)** | **r** | -0.073 | -0.059 | -0.080 | -0.054 | -0.004 | -0.168 | 0.030 | -0.230 | 0.034 |
| **p-value** | 0.322 | 0.419 | 0.277 | 0.464 | 0.960 | 0.022 | 0.680 | 0.002 | 0.641 |
| **n** | 187 | 187 | 187 | 186 | 187 | 187 | 187 | 177 | 187 |
| **T3 (Triiodothyronine)** **(ng/dL)** | **r** | 0.050 | 0.061 | -0.035 | 0.062 | 0.052 | -0.025 | 0.222 | 0.005 | 0.039 |
| **p-value** | 0.495 | 0.403 | 0.636 | 0.394 | 0.477 | 0.731 | 0.002 | 0.943 | 0.590 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **Cortisol** **(ug/dL)** | **r** | -0.127 | -0.137 | -0.155 | -0.014 | -0.087 | -0.024 | -0.043 | -0.026 | -0.059 |
| **p-value** | 0.081 | 0.061 | 0.033 | 0.851 | 0.233 | 0.739 | 0.558 | 0.732 | 0.421 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **IGF-1** **(ng/mL)** | **r** | -0.036 | -0.034 | -0.134 | 0.047 | -0.047 | 0.066 | -0.006 | -0.052 | -0.056 |
| **p-value** | 0.626 | 0.642 | 0.066 | 0.520 | 0.524 | 0.370 | 0.940 | 0.492 | 0.443 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |
| **IGFBP-1** **(pg/mL)** | **r** | -0.178 | -0.178 | -0.123 | -0.200 | -0.193 | -0.103 | -0.076 | -0.069 | -0.147 |
| **p-value** | 0.014 | 0.014 | 0.093 | 0.006 | 0.008 | 0.158 | 0.298 | 0.359 | 0.044 |
| **n** | 189 | 189 | 189 | 188 | 189 | 189 | 189 | 179 | 189 |

1 Values in cells are, in order: Pearson correlation coefficient ($ρ$), p-value of significance (where null hypothesis is H0: $ρ$ = 0), number of observations with non-missing pairs of values.

2 Cells are shaded from red to green based on the magnitude of the absolute value of the Pearson correlation coefficient ($ρ$), from weakest correlation (no highlight) to strongest correlation (orange).

**Supplementary Figure 1. Regression overlays of spline (five knots) and linear regressions on the associations between adiposity measures and metabolic** **biomarkers**

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**Supplementary Figure 2. Regression overlays of spline (five knots) and linear regressions on the associations between adiposity measures and hormonal** **biomarkers**

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