

Table S1. Pearson partial (age) correlation analysis. $p < 0.0001$ for all correlations.

| | Females, $n = 69$ | | | | | | | Males, $n = 51$ | | | | | | |
|------|-------------------|------|------|------|------|------|------|-----------------|------|------|------|------|------|------|
| | BMI | WC | WtHR | FMI | FFMI | TMI | BMFI | BMI | WC | WtHR | FMI | FFMI | TMI | BMFI |
| BMI | 1 | 0.85 | 0.86 | 0.98 | 0.88 | 0.99 | 0.98 | 1 | 0.89 | 0.89 | 0.97 | 0.79 | 0.99 | 0.97 |
| WC | 0.85 | 1 | 0.97 | 0.80 | 0.80 | 0.83 | 0.90 | 0.89 | 1 | 0.96 | 0.84 | 0.74 | 0.86 | 0.91 |
| WtHR | 0.86 | 0.97 | 1 | 0.81 | 0.82 | 0.87 | 0.90 | 0.89 | 0.96 | 1 | 0.86 | 0.68 | 0.91 | 0.91 |
| FMI | 0.98 | 0.80 | 0.81 | 1 | 0.77 | 0.96 | 0.97 | 0.97 | 0.84 | 0.86 | 1 | 0.62 | 0.96 | 0.98 |
| FFMI | 0.88 | 0.80 | 0.82 | 0.77 | 1 | 0.87 | 0.82 | 0.79 | 0.74 | 0.68 | 0.62 | 1 | 0.75 | 0.65 |
| TMI | 0.99 | 0.83 | 0.87 | 0.96 | 0.87 | 1 | 0.96 | 0.99 | 0.86 | 0.91 | 0.96 | 0.75 | 1 | 0.96 |
| BMFI | 0.98 | 0.90 | 0.90 | 0.97 | 0.82 | 0.96 | 1 | 0.97 | 0.91 | 0.91 | 0.98 | 0.65 | 0.96 | 1 |

Table S2. Pearson partial correlations statistics (Fisher's z transformation). All results are shown as Fisher's z (95% CI).

| Females (n = 69) | TG | HDL | HOMA-IR | SPB | DBP | HbA1c | Glycemia 0' | Glycemia 120' | Insulin 0' |
|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------------|---------------------|
| BMI | -0.1 (-0.37, 0.17) | -0.08 (-0.35, 0.19) | 0.25 (-0.02, 0.49) | 0.46 (0.22, 0.65) * | 0.37 (0.1, 0.58) * | 0.47 (0.23, 0.66) * | 0.07 (-0.21, 0.34) | 0.26 (-0.01, 0.5) | 0.27 (0, 0.5) |
| WC | -0.04 (-0.31, 0.24) | -0.19 (-0.44, 0.09) | 0.3 (0.03, 0.53) | 0.44 (0.19, 0.64) * | 0.37 (0.11, 0.59) * | 0.32 (0.06, 0.55) * | 0.1 (-0.17, 0.37) | 0.26 (-0.01, 0.5) | 0.31 (0.04, 0.54) |
| WtHR | -0.08 (-0.34, 0.2) | -0.09 (-0.35, 0.19) | 0.28 (0.01, 0.52) * | 0.43 (0.18, 0.63) * | 0.32 (0.05, 0.55) * | 0.31 (0.04, 0.54) * | 0.11 (-0.16, 0.38) | 0.25 (-0.02, 0.49) | 0.29 (0.02, 0.52) * |
| FMI | -0.12 (-0.38, 0.16) | -0.08 (-0.35, 0.19) | 0.21 (-0.06, 0.46) | 0.43 (0.18, 0.63) * | 0.35 (0.08, 0.57) * | 0.44 (0.19, 0.64) * | 0 (-0.28, 0.27) | 0.2 (-0.08, 0.45) | 0.24 (-0.04, 0.48) |
| FFMI | -0.07 (-0.34, 0.2) | -0.04 (-0.31, 0.24) | 0.32 (0.06, 0.55) * | 0.46 (0.21, 0.65) * | 0.31 (0.04, 0.54) * | 0.46 (0.21, 0.65) * | 0.18 (-0.1, 0.43) | 0.37 (0.11, 0.58) * | 0.31 (0.05, 0.54) * |
| TMI | -0.12 (-0.38, 0.16) | -0.02 (-0.29, 0.25) | 0.25 (-0.03, 0.49) | 0.45 (0.2, 0.64) * | 0.33 (0.06, 0.55) * | 0.45 (0.2, 0.64) * | 0.08 (-0.2, 0.35) | 0.25 (-0.03, 0.49) | 0.26 (-0.02, 0.5) |
| BMFI | -0.1 (-0.37, 0.18) | -0.12 (-0.38, 0.16) | 0.23 (-0.05, 0.47) | 0.46 (0.21, 0.65) * | 0.37 (0.11, 0.58) * | 0.41 (0.15, 0.61) * | 0.02 (-0.25, 0.29) | 0.21 (-0.06, 0.46) | 0.25 (-0.02, 0.49) |
| Males (n = 51) | | | | | | | | | |
| BMI | 0.3 (0.02, 0.55) * | -0.12 (-0.4, 0.18) | 0.39 (0.11, 0.61) * | 0.52 (0.27, 0.71) * | 0.43 (0.17, 0.64) * | 0.45 (0.18, 0.65) * | 0.15 (-0.14, 0.42) | 0.27 (-0.02, 0.52) | 0.38 (0.1, 0.6) * |
| WC | 0.38 (0.1, 0.6) * | -0.18 (-0.45, 0.12) | 0.44 (0.17, 0.64) * | 0.5 (0.24, 0.69) * | 0.35 (0.06, 0.58) * | 0.41 (0.14, 0.63) * | 0.03 (-0.26, 0.32) | 0.21 (-0.08, 0.47) | 0.45 (0.18, 0.65) * |
| WtHR | 0.32 (0.03, 0.56) * | -0.13 (-0.4, 0.17) | 0.4 (0.12, 0.62) * | 0.52 (0.27, 0.7) * | 0.48 (0.22, 0.67) * | 0.37 (0.09, 0.6) * | 0.01 (-0.28, 0.3) | 0.16 (-0.14, 0.43) | 0.4 (0.13, 0.62) * |
| FMI | 0.26 (-0.03, 0.51) | -0.08 (-0.36, 0.21) | 0.36 (0.08, 0.59) * | 0.53 (0.28, 0.71) * | 0.5 (0.24, 0.69) * | 0.4 (0.13, 0.62) * | 0.18 (-0.11, 0.45) | 0.25 (-0.04, 0.51) | 0.34 (0.06, 0.58) * |
| FFMI | 0.31 (0.02, 0.55) * | -0.16 (-0.43, 0.13) | 0.37 (0.09, 0.6) * | 0.32 (0.03, 0.56) | 0.16 (-0.14, 0.43) | 0.48 (0.22, 0.68) * | 0.08 (-0.22, 0.36) | 0.29 (0, 0.54) | 0.39 (0.11, 0.61) * |
| TMI | 0.27 (-0.03, 0.52) | -0.09 (-0.37, 0.21) | 0.36 (0.08, 0.59) * | 0.53 (0.29, 0.71) * | 0.5 (0.25, 0.69) * | 0.42 (0.15, 0.63) * | 0.14 (-0.16, 0.41) | 0.23 (-0.07, 0.49) | 0.35 (0.07, 0.58) * |
| BMFI | 0.29 (0, 0.54) * | -0.11 (-0.39, 0.18) | 0.38 (0.1, 0.6) * | 0.54 (0.3, 0.72) * | 0.45 (0.18, 0.65) * | 0.41 (0.14, 0.63) * | 0.14 (-0.16, 0.41) | 0.24 (-0.06, 0.49) | 0.37 (0.08, 0.59) * |

Partial variable: age. * Association between parameters of MetS and adiposity indexes.