**Table S1.** Comparison of the baseline characteristics of males according to CT-measured skeletal muscle index (SMI$_{CT}$) quartiles.

| Variable | Total (n=1406) | SMI$_{CT}$ quartiles | | | | p for trend |
| | | Q1 (n=352) | Q2 (n=351) | Q3 (n=351) | Q4 (n=352) | |
|---|---|---|---|---|---|---|
| Age, years | 53.5 ± 9.2 | 55.9 ± 9.0 | 53.7 ± 9.1 | 52.6 ± 8.4 | 51.6 ± 9.6 | <0.001 |
| Systolic BP, mmHg | 119.2 ± 12.9 | 121.6 ± 12.1 | 120.8 ± 12.7 | 117.8 ± 13.4 | 116.7 ± 12.8 | <0.001 |
| Diastolic BP, mmHg | 78.5 ± 10.1 | 79.5 ± 9.9 | 80.3 ± 9.8 | 77.4 ± 10.3 | 76.9 ± 9.8 | <0.001 |
| Height, cm | 170.2 ± 5.6 | 167.7 ± 5.4 | 169.8 ± 5.2 | 171.0 ± 5.2 | 172.3 ± 5.5 | <0.001 |
| Weight, kg | 71.1 ± 8.7 | 72.4 ± 8.7 | 72.1 ± 8.9 | 71.0 ± 8.0 | 68.7 ± 8.7 | <0.001 |
| BMI, kg/m$^2$ | 24.5 ± 2.5 | 25.7 ± 2.5 | 25.0 ± 2.3 | 24.3 ± 2.2 | 23.1 ± 2.3 | <0.001 |
| WC, cm | 88.0 ± 6.8 | 91.0 ± 6.5 | 89.1 ± 6.6 | 87.6 ± 5.8 | 84.2 ± 6.6 | <0.001 |
| Smoking | | | | | | |
| Never | 314 (22.3%) | 94 (26.7%) | 84 (23.9%) | 64 (18.2%) | 72 (20.5%) | 0.014 |
| Ex-smoker | 752 (53.5%) | 196 (55.7%) | 194 (55.3%) | 186 (53.0%) | 176 (50.0%) | 0.104 |
| Current smoker | 340 (24.2%) | 62 (17.6%) | 73 (20.8%) | 101 (28.8%) | 104 (29.5%) | <0.001 |
| Exercise | | | | | | |
| No regular exercise | 364 (25.9%) | 107 (30.4%) | 88 (25.1%) | 78 (22.2%) | 91 (25.9%) | 0.115 |
| Moderate activity | 505 (35.9%) | 103 (29.3%) | 124 (35.3%) | 150 (42.7%) | 128 (36.4%) | 0.012 |
| Rigorous activity (≥3/week) | 537 (38.2%) | 142 (40.3%) | 139 (39.6%) | 123 (35.0%) | 133 (37.8%) | 0.291 |
| Muscle, cm$^2$ | 229.2 ± 29.4 | 204.2 ± 22.1 | 222.8 ± 20.8 | 234.9 ± 21.4 | 254.9 ± 27.0 | <0.001 |
| SMI$_{CT}$, cm$^2$/(kg/m$^2$) | 9.4 ± 1.3 | 8.0 ± 0.5 | 8.9 ± 0.2 | 9.7 ± 0.3 | 11.1 ± 0.9 | <0.001 |
| TC, mg/dL | 189.9 ± 33.3 | 192.9 ± 34.0 | 192.9 ± 36.3 | 187.5 ± 32.3 | 186.4 ± 29.9 | 0.006 |
| TG, mg/dL | 131.5 ± 82.2 | 142.0 ± 90.8 | 141.3 ± 89.0 | 130.6 ± 80.1 | 112.2 ± 62.7 | <0.001 |
| HDL cholesterol, mg/dL | 50.3 ± 11.5 | 49.7 ± 11.4 | 49.3 ± 10.7 | 49.3 ± 11.0 | 53.0 ± 12.4 | <0.001 |
| LDL cholesterol, mg/dL | 119.6 ± 29.1 | 123.8 ± 30.2 | 120.0 ± 29.0 | 118.6 ± 30.7 | 116.5 ± 26.2 | 0.022 |
| Fasting glucose, mg/dL | 101.0 ± 17.3 | 101.7 ± 16.3 | 102.1 ± 16.5 | 100.5 ± 17.1 | 99.6 ± 18.9 | 0.053 |

| | | | | | | |
|---|---|---|---|---|---|---|
| HbA1c, % | 5.8 ± 0.5 | 5.8 ± 0.5 | 5.8 ± 0.5 | 5.7 ± 0.6 | 5.7 ± 0.6 | 0.017 |

Data are presented as the mean ± standard deviation or as a percentage (%).

Cutoff values of $SMI_{CT}$ quartiles ($cm^2/(kg/m^2)$) for males, 8.53, 9.29, 10.15. Q: quartile; BP: blood pressure; BMI: body mass index; WC: waist circumference; TC: total cholesterol; TG: triglyceride; LDL: low-density lipoprotein; HDL: high-density lipoprotein; HbA1c: hemoglobin A1c.

**Table S2.** Comparison of the baseline characteristics of females according to CT-measured skeletal muscle index ($SMI_{CT}$) quartiles.

| Variable | Total (n=501) | $SMI_{CT}$ quartiles | | | | p for trend |
|---|---|---|---|---|---|---|
| | | Q1 (n=126) | Q2 (n=125) | Q3 (n=125) | Q4 (n=125) | |
| Age, years | 52.2 ± 9.2 | 55.1 ± 8.5 | 52.9 ± 9.0 | 51.3 ± 8.9 | 49.7 ± 9.4 | <0.001 |
| Systolic BP, mmHg | 111.8 ± 14.4 | 115.1 ± 15.1 | 112.6 ± 13.6 | 112.0 ± 13.6 | 107.5 ± 14.3 | <0.001 |
| Diastolic BP, mmHg | 69.8 ± 10.2 | 71.5 ± 9.6 | 70.5 ± 10.5 | 70.0 ± 10.4 | 67.4 ± 10.2 | 0.001 |
| Height, cm | 158.7 ± 5.0 | 157.3 ± 5.7 | 158.1 ± 5.2 | 159.2 ± 4.0 | 160.4 ± 4.5 | <0.001 |
| Weight, kg | 54.8 ± 6.8 | 58.3 ± 7.6 | 55.8 ± 6.5 | 53.8 ± 5.7 | 51.2 ± 5.1 | <0.001 |
| BMI, kg/m$^2$ | 21.7 ± 2.5 | 23.6 ± 2.7 | 22.3 ± 2.0 | 21.2 ± 2.0 | 19.9 ± 1.7 | <0.001 |
| WC, cm | 79.3 ± 6.8 | 83.7 ± 6.4 | 81.2 ± 6.2 | 78.1 ± 5.5 | 74.0 ± 5.1 | <0.001 |
| Smoking | | | | | | |
| Never | 465 (92.8%) | 122 (96.8%) | 118 (94.4%) | 115 (92.0%) | 110 (88.0%) | 0.005 |
| Ex-smoker | 17 (3.4%) | 1 (0.8%) | 5 (4.0%) | 5 (4.0%) | 6 (4.8%) | 0.096 |
| Current smoker | 19 (3.8%) | 3 (2.4%) | 2 (1.6%) | 5 (4.0%) | 9 (7.2%) | 0.027 |
| Exercise | | | | | | |
| No regular exercise | 184 (36.7%) | 50 (39.7%) | 47 (37.6%) | 46 (36.8%) | 41 (32.8%) | 0.265 |
| Moderate activity | 149 (29.7%) | 43 (34.1%) | 32 (25.6%) | 38 (30.4%) | 36 (28.8%) | 0.538 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Rigorous activity (≥3/week) | 168 (33.5%) | 33 (26.2%) | 46 (36.8%) | 41 (32.8%) | 48 (38.4%) | 0.083 |
| Muscle, cm$^2$ | 176.0 ± 23.2 | 156.8 ± 18.2 | 170.4 ± 15.7 | 178.2 ± 16.9 | 198.9 ± 19.0 | <0.001 |
| SMI$_{CT}$, cm$^2$/(kg/m$^2$) | 8.2 ± 1.4 | 6.7 ± 0.5 | 7.6 ± 0.2 | 8.4 ± 0.3 | 10.0 ± 1.0 | <0.001 |
| TC, mg/dL | 198.3 ± 34.9 | 203.7 ± 36.9 | 204.8 ± 38.7 | 191.7 ± 29.2 | 193.0 ± 32.1 | 0.015 |
| TG, mg/dL | 93.7 ± 60.3 | 105.1 ± 45.0 | 113.4 ± 86.3 | 84.5 ± 48.2 | 72.1 ± 42.5 | <0.001 |
| HDL cholesterol, mg/dL | 60.2 ± 13.3 | 55.9 ± 11.9 | 59.4 ± 13.3 | 61.6 ± 13.1 | 64.1 ± 13.7 | <0.001 |
| LDL cholesterol, mg/dL | 120.0 ± 30.5 | 128.4 ± 31.9 | 124.6 ± 35.1 | 113.5 ± 25.2 | 114.3 ± 27.5 | 0.008 |
| Fasting glucose, mg/dL | 92.7 ± 12.7 | 96.2 ± 11.9 | 93.9 ± 12.4 | 92.3 ± 16.1 | 88.3 ± 7.7 | <0.001 |
| HbA1c, % | 5.7 ± 0.4 | 5.8 ± 0.4 | 5.8 ± 0.5 | 5.7 ± 0.5 | 5.6 ± 0.3 | <0.001 |

Data are presented as the mean ± standard deviation or as a percentage (%).

Cutoff values of SMI$_{CT}$ quartiles (cm$^2$/(kg/m$^2$)) for females, 7.26, 7.94, 8.94. Q: quartile; BP: blood pressure; BMI: body mass index; WC: waist circumference; TC: total cholesterol; TG: triglyceride; LDL: low-density lipoprotein; HDL: high-density lipoprotein; HbA1c: hemoglobin A1c.

**Table S3.** Comparison of PFT values between males according to CT-measured skeletal muscle index (SMI$_{CT}$) quartiles.

| Variable | Total (n=1406) | SMI$_{CT}$ quartiles | | | | p for trend |
|---|---|---|---|---|---|---|
| | | Q1 (n=352) | Q2 (n=351) | Q3 (n=351) | Q4 (n=352) | |
| FVC, liters | 4.2 ± 0.6 | 3.9 ± 0.6 | 4.1 ± 0.6 | 4.3 ± 0.6 | 4.4 ± 0.6 | <0.001 |
| FVC, % predicted | 96.2 ± 11.3 | 94.0 ± 11.0 | 96.0 ± 11.4 | 97.0 ± 11.4 | 98.0 ± 11.0 | <0.001 |
| Predicted FVC (%) < 80% | 86 (6.1%) | 30 (8.5%) | 20 (5.7%) | 22 (6.3%) | 14 (4.0%) | 0.022 |
| FEV1, liters | 3.3 ± 0.6 | 3.1 ± 0.5 | 3.3 ± 0.5 | 3.4 ± 0.6 | 3.5 ± 0.6 | <0.001 |
| FEV1, % predicted | 103.3 ± 13.5 | 101.4 ± 13.7 | 102.7 ± 13.5 | 103.8 ± 13.8 | 105.3 ± 12.6 | <0.001 |
| Predicted FEV1 (%) < 80% | 54 (3.8%) | 19 (5.4%) | 17 (4.8%) | 12 (3.4%) | 6 (1.7%) | 0.006 |
| FEV1/FVC (%) | 78.9 ± 6.4 | 78.8 ± 6.4 | 78.6 ± 6.1 | 78.8 ± 6.4 | 79.3 ± 6.5 | 0.153 |
| FEV1/FVC < 70% | 95 (6.8%) | 26 (7.4%) | 23 (6.6%) | 24 (6.8%) | 22 (6.2%) | 0.601 |

Data are presented as the mean ± standard deviation or as a percentage (%). Cutoff values of $SMI_{CT}$ quartiles ($cm^2/(kg/m^2)$) for males, 8.53, 9.29, 10.15.

**Table S4.** Comparison of PFT values between females according to CT-measured skeletal muscle index ($SMI_{CT}$) quartiles.

| Variable | Total (n=501) | $SMI_{CT}$ quartiles | | | | p for trend |
| --- | --- | --- | --- | --- | --- | --- |
| | | Q1 (n=126) | Q2 (n=125) | Q3 (n=125) | Q4 (n=125) | |
| FVC, liters | 3.0 ± 0.4 | 2.9 ± 0.5 | 3.0 ± 0.4 | 3.1 ± 0.4 | 3.1 ± 0.4 | <0.001 |
| FVC, % predicted | 98.2 ± 12.0 | 98.0 ± 11.8 | 98.8 ± 10.9 | 98.3 ± 13.3 | 97.6 ± 11.9 | 0.539 |
| Predicted FVC (%) < 80% | 15 (3.0%) | 5 (4.0%) | 4 (3.2%) | 3 (2.4%) | 3 (2.4%) | 0.418 |
| FEV1, liters | 2.5 ± 0.4 | 2.3 ± 0.4 | 2.4 ± 0.4 | 2.5 ± 0.4 | 2.6 ± 0.4 | <0.001 |
| FEV1, % predicted | 106.7 ± 14.0 | 107.3 ± 13.9 | 106.7 ± 12.9 | 106.2 ± 15.2 | 106.8 ± 13.9 | 0.952 |
| Predicted FEV1 (%) < 80% | 10 (2.0%) | 2 (1.6%) | 2 (1.6%) | 3 (2.4%) | 3 (2.4%) | 0.562 |
| FEV1/FVC (%) | 81.8 ± 6.2 | 81.5 ± 5.7 | 81.1 ± 5.6 | 81.6 ± 6.3 | 83.1 ± 7.1 | 0.008 |
| FEV1/FVC < 70% | 10 (2.0%) | 2 (1.6%) | 1 (0.8%) | 4 (3.2%) | 3 (2.4%) | 0.387 |

Data are presented as the mean ± standard deviation or as a percentage (%). Cutoff values of $SMI_{CT}$ quartiles ($cm^2/(kg/m^2)$) for females, 7.26, 7.94, 8.94.