

Supplementary Data

SUPPLEMENTARY TABLE S1. LUMBAR SPINE, TOTAL HIP, AND CUMULATIVE SITE BONE MINERAL DENSITY BY FITNESS CATEGORIES

	<i>Low fit^a, N = 120</i>	<i>Moderate fit^a, N = 461</i>	<i>High fit^a, N = 1,139</i>
Lumbar spine (L1–L4)			
Bone mineral density (g/cm ²)	1.15 ± 0.16	1.16 ± 0.17	1.14 ± 0.16
T-score	-0.22 ± 1.33	-0.15 ± 1.44	-0.36 ± 1.36
Osteoporosis	4 (3.3)	17 (3.7)	56 (4.9)
Osteopenia	27 (22.5)	118 (25.6)	322 (28.3)
Normal	89 (74.2)	326 (70.7)	761 (66.8)
Total hip			
Bone mineral density (g/cm ²)	0.94 ± 0.14	0.94 ± 0.13	0.93 ± 0.12
T-score	-0.56 ± 1.08	-0.53 ± 1.03	-0.66 ± 0.95
Osteoporosis	3 (2.5)	9 (2.0)	31 (2.7)
Osteopenia	42 (35.0)	148 (32.1)	386 (33.9)
Normal	75 (62.5)	304 (65.9)	722 (63.4)
Cumulative skeletal sites^b			
T-score	-1.15 ± 0.99	-1.06 ± 0.99	-1.15 ± 0.95
Osteoporosis	9 (7.5)	27 (5.9)	95 (8.3)
Osteopenia	55 (45.8)	222 (48.2)	560 (49.2)
Normal	56 (46.7)	212 (46.0)	484 (42.5)

Data presented as mean ± SD or *N* (%) when categorical.

^aLow fit, category 1 age-defined cut points of cardiorespiratory fitness; moderate fit, categories 2–3; high fit, categories 4–5.

^bMinimum T-score of femoral neck, L1–L4, and total hip.

SUPPLEMENTARY TABLE S2. ODDS RATIO TO PREDICT RISK OF T-SCORE ≤ -2.5
WITH FITNESS MODELED CATEGORICALLY, FULLY ADJUSTED MODEL

	<i>T-score at hip ≤ -2.5</i>		<i>T-score L1-L4 ≤ -2.5</i>		<i>Cumulative T-score ≤ -2.5</i>	
	<i>Odds ratio (95% CI)</i>	<i>p</i>	<i>Odds ratio (95% CI)</i>	<i>p</i>	<i>Odds ratio (95% CI)</i>	<i>p</i>
Age (per 10 years)	1.72 (1.17–2.53)	0.006	2.17 (1.61–2.93)	<0.001	1.93 (1.51–2.46)	<0.001
Weight (per 5 kg)	0.56 (0.45–0.68)	<0.001	0.74 (0.65–0.84)	<0.001	0.69 (0.62–0.76)	<0.001
Moderate fit versus low fit ^a	0.46 (0.12–1.84)	0.273	0.73 (0.23–2.28)	0.583	0.47 (0.20–1.08)	0.074
High fit versus low fit ^a	0.48 (0.13–1.75)	0.269	0.76 (0.25–2.29)	0.629	0.51 (0.23–1.12)	0.093
Resistance activity, 2–7 versus 0–1 days/week	0.29 (0.13–0.64)	0.002	0.94 (0.58–1.55)	0.820	0.73 (0.49–1.08)	0.113

^aLow fit, category 1 age-defined cut points of cardiorespiratory fitness; moderate fit, categories 2–3; high fit, categories 4–5.
CI, confidence interval.

SUPPLEMENTARY TABLE S3. ODDS RATIO TO PREDICT RISK OF T-SCORE ≤ -1.0
WITH FITNESS MODELED CATEGORICALLY, FULLY ADJUSTED MODEL

	<i>T-score at hip ≤ -1.0</i>		<i>T-score L1-L4 ≤ -1.0</i>		<i>Cumulative T-score ≤ -1.0</i>	
	<i>Odds ratio (95% CI)</i>	<i>p</i>	<i>Odds ratio (95% CI)</i>	<i>p</i>	<i>Odds ratio (95% CI)</i>	<i>p</i>
Age (per 10 years)	1.57 (1.35–1.83)	<0.001	1.25 (1.07–1.44)	0.004	1.57 (1.35–1.83)	<0.001
Weight (per 5 kg)	0.76 (0.72–0.80)	<0.001	0.85 (0.81–0.90)	<0.001	0.80 (0.76–0.84)	<0.001
Moderate fit versus low fit ^a	0.52 (0.33–0.83)	0.006	0.90 (0.56–1.45)	0.676	0.66 (0.43–1.03)	0.068
High fit versus low fit ^a	0.40 (0.26–0.64)	<0.001	0.87 (0.55–1.39)	0.564	0.54 (0.35–0.85)	0.007
Resistance activity, 2–7 versus 0–1 days/week	0.91 (0.73–1.14)	0.420	0.95 (0.76–1.18)	0.638	0.97 (0.78–1.20)	0.777

^aLow fit, category 1 age-defined cut points of cardiorespiratory fitness; moderate fit, categories 2–3; high fit, categories 4–5.