

Table S7. Physiological Outcomes (Per-Protocol Analysis)

	Baseline	Follow-up	Within-group change	Between-group difference
Per-protocol	Mean (SD)	Mean (SD)	Change (95% CI)	Difference (95% CI)
VO_{2peak} (L/min)^a				
EX	2.81 (0.55)	3.01 (0.58)	0.13 (-0.04 to 0.30)	0.05 (-0.21 to 0.30)
CON	2.62 (0.59)	2.70 (0.64)	0.08 (-0.10 to 0.27)	
VO_{2peak} (ml/min/kg)^a				
EX	33.7 (7.8)	36.0 (7.9)	1.7 (-0.6 to 4.0)	0.5 (-2.9 to 3.8)
CON	31.4 (8.4)	32.6 (8.6)	1.2 (-1.2 to 3.6)	
W_{peak}(watt)				
EX	230.1 (51.2)	253.4 (57.2)	15.8 (4.3 to 27.2)	12.6 (-4.1 to 29.3)
CON	208.9 (45.1)	212.6 (46.2)	3.2 (-9.0 to 15.3)	
Diastolic blood pressure (mmHg)^c				
EX	89.6 (9.8)	85.2 (7.1)	-3.5 (-7.3 to 0.2)	-5.2 (-10.6 to 0.3)
CON	87.5 (12.5)	90.7 (12.7)	1.7 (-2.3 to 5.6)	
Systolic blood pressure (mmHg)^c				
EX	143.9 (20.2)	141.7 (19.2)	0.6 (-6.3 to 7.6)	-3.6 (-13.7 to 6.6)
CON	140.2 (19.5)	148.5 (19.1)	4.2 (-3.2 to 11.5)	
Maximum heart rate (beats/min)				
EX	163.2 (13.8)	155.0 (16.7)	-8.3 (-14.8 to -1.7)	-11.0 (-20.8 to -1.3)
CON	154.2 (14.3)	154.3 (10.0)	2.8 (-3.9 to 9.5)	
Resting heart rate (beats/min)^c				
EX	63.7 (7.3)	59.0 (7.6)	-4.3 (-9.1 to 0.5)	-2.8 (-9.8 to 4.2)
CON	62.9 (9.1)	59.2 (6.8)	-1.5 (-6.6 to 3.6)	
Android fat mass (kg)				
EX	2.85 (0.93)	2.63 (0.87)	-0.22 (-0.39 to -0.06)	-0.06 (0.31 to 0.20)
CON	2.78 (1.24)	2.61 (1.31)	-0.17 (-0.36 to 0.03)	
Android fat percentage (%)				
EX	39.9 (10.6)	38.0 (10.0)	-2.0 (-3.6 to -0.3)	0.5 (-2.0 to 3.0)
CON	38.2 (10.7)	35.4 (12.7)	-2.5 (-4.4 to -0.6)	
BMI (kg/m²)				
EX	26.6 (2.3)	26.7 (2.2)	0.1 (-0.3 to 0.5)	0.4 (-0.2 to 1.0)
CON	27.2 (3.8)	27.3 (3.9)	-0.3 (-0.7 to 0.2)	

Total fat percentage (%)				
EX	29.4 (7.5)	27.7 (7.2)	-1.7 (-3.0 to -0.4)	-0.1 (-2.2 to 2.0)
CON	28.5 (6.7)	27.1 (8.3)	-1.6 (-3.2 to -0.1)	
Total fat mass (kg)				
EX	24.2 (6.9)	22.8 (6.6)	-1.4 (-2.7 to -0.1)	0.1 (-1.9 to 2.1)
CON	23.6 (8.0)	22.5 (8.8)	-1.5 (-3.0 to 0.1)	
Gynoid fat percentage (%)				
EX	29.9 (6.6)	28.3 (6.7)	-1.6 (-3.8 to 0.6)	-1.2 (-4.6 to 2.1)
CON	30.7 (5.2)	30.9 (8.1)	-0.4 (-2.9 to 2.2)	
Gynoid fat mass (kg)				
EX	3.65 (0.97)	3.49 (0.96)	-0.15 (-0.36 to 0.05)	0.096 (-0.22 to 0.41)
CON	3.64 (0.95)	3.54 (1.0)	-0.25 (-0.49 to -9.78)	
Lean mass (kg)				
EX	57.40 (6.80)	58.90 (6.93)	1.50 (0.74 to 2.25)	0.69 (-0.48 to 1.85)
CON	57.27 (6.38)	58.46 (7.32)	0.81 (-0.08 to 1.70)	
Hip circumference (cm)				
EX	101.4 (2.8)	102.2 (3.7)	0.8 (-1.0 to 2.5)	1.5 (-1.2 to 4.1)
CON	101.6 (5.8)	101.6 (6.0)	-0.7 (-2.7 to 1.3)	
Waist circumference (cm)				
EX	100.8 (7.7)	100.5 (8.0)	-0.3 (-2.7 to 2.2)	0.6 (-3.2 to 4.3)
CON	101.5 (12.2)	101.6 (13.5)	-0.8 (-3.7 to 2.0)	
Weight (kg)				
EX	85.1 (8.6)	85.1 (8.6)	0.1 (-1.2 to 1.4)	1.0 (-0.9 to 3.0)
CON	84.3 (13.0)	84.1 (12.9)	-0.9 (-2.4 to 0.6)	
C-peptid (pmol/l)^d				
EX	891.20 (252.82)	749.45 (262.84)	-123.5 (-235 to -12.1)	-90.6 (-257 to 76.2)
CON	891.40 (363.75)	804.62 (227.59)	-32.9 (-157 to 91.3)	
Fasting glucose mmol/l				
EX	5.7 (0.5)	5.7 (0.4)	0.0 (-0.3 to 0.3)	0.2 (-0.3 to 0.7)
CON	5.7 (0.5)	5.5 (0.4)	-0.2 (-0.6 to 0.15)	
Insulin (pm/l)^d				
EX	76.80 (26.59)	57.91 (28.87)	-17.0 (-32.9 to -1.13)	-16.2 (-40.8 to 8.4)
CON	75.10 (61.49)	57.86 (36.45)	-0.8 (-19.6 to 18.04)	
HbA1c (mmol/mol)				
EX	34 (3.0)	34 (2.7)	0.0 (-1.1 to 1.1)	-0.1 (-1.8 to 1.6)
CON	36 (2.8)	37 (2.3)	0.1 (-1.2 to 1.4)	
HDL Cholesterol (mmol/l)				
EX	1.6 (0.3)	1.5 (0.3)	-0.1 (-0.2 to -0.01)	-0.2 (-0.3 to -0.04)

CON	1.3 (0.23)	1.4 (0.2)	0.1 (-0.02 to 0.2)	
LDL Cholesterol (mmol/l)				
EX	3.6 (0.7)	3.4 (0.6)	-0.2 (-0.6 to 0.2)	-0.3 (-0.9 to 0.3)
CON	3.3 (0.8)	3.5 (1.2)	0.1(-0.4 to 0.5)	
Total cholesterol (mmol/l)				
EX	5.4 (0.8)	4.9 (0.6)	-0.5 (-0.9 to -0.1)	-0.5 (-1.2 to 0.1)
CON	4.9 (0.9)	5.1 (1.2)	0.03 (-0.5 to 0.5)	
Triglycerides (mmol/l)				
EX	1.4 (0.8)	1.1 (0.5)	-0.3 (-0.6 to 0.03)	-0.01 (-0.5 to 0.5)
CON	1.3 (0.5)	1.1 (0.4)	-0.3 (-0.6 to 0.1)	
Leucocytes (10⁹/L)				
EX	5.44 (1.73)	5.16 (1.45)	-0.27 (-0.73 to 0.18)	-0.33 (-1.03 to 0.37)
CON	6.30 (2.73)	5.86 (1.90)	0.06 (-0.47 to 0.59)	
Neutrophils (10⁹/L)				
EX	3.25 (1.20)	2.99 (1.15)	-0.26 (-0.65 to 0.14)	-0.28 (-0.88 to 0.33)
CON	3.95 (2.39)	3.50 (1.37)	0.02 (-0.44 to 0.48)	
IL-1Ra (pg/ml)				
EX	149.52 (58.70)	162.56 (66.04)	13.0 (-26.9 to 52.9)	32.8 (-28.3 to 93.8)
CON	199.80 (132.26)	175.71 (77.97)	-19.7 (-65.9 to 26.5)	
Cortisol (nmol/l)^d				
EX	331.5 (106.1)	293.8 (87.0)	-33.1 (-80.9 to 14.8)	-49.6 (-121.0 to 22.0)
CON	275.5 (97.2)	283.4 (89.6)	16.5 (-36.7 to 69.6)	
Lymphocytes (10⁹/L)				
EX	1.51 (0.50)	1.50 (0.36)	-0.01 (-0.15 to 0.13)	-0.09 (-0.30 to 0.13)
CON	1.58 (0.44)	1.69 (0.57)	0.08 (-0.08 to 0.24)	
Hs-CRP (mg/L)^b				
EX	3.42 (6.05)	5.03 (10.53)	0.84 (0.43 to 1.65)	0.75 (0.35 to 1.64)
CON	5.13 (11.17)	1.68 (2.06)	1.07 (0.49 to 2.35)	
IL-6 (pg/ml)				
EX	0.65 (0.42)	0.66 (0.64)	0.01 (-0.17 to 0.20)	-0.02 (-0.30 to 0.27)
CON	4.09 (11.10)	0.60 (0.21)	0.03 (-0.19 to 0.25)	
TNF-alpha (pg/ml)				
EX	2.52 (0.60)	2.50 (0.46)	-0.02 (-0.21 to 0.17)	-0.06 (-0.36 to 0.23)
CON	2.56 (0.74)	2.45 (0.63)	0.05 (-0.18 to 0.27)	
PSA (µg/L)^b				
EX	11.28 (8.93)	9.92 (6.80)	0.897 (0.78 to 1.04)	0.889 (0.8 to 1.1)
CON	15.71 (13.91)	16.31 (13.69)	0.992 (0.84 to 1.18)	

Means (SD) are based on all available data for EX and CON at baseline and follow-up (per-protocol analysis EX, n=11 at baseline and follow-up; CON, baseline n=10 and follow-up n=8). The mean differences are estimated means from the mixed models, and therefore, within-group change may not reflect the numerical difference between baseline and follow-up.

^aVO₂peak and W_{peak} are based on cardiorespiratory tests meeting two of the following test criteria: peak RER ≥ 1.10, PRE ≥ 18, and a VO₂ plateau (EX, baseline n=10, follow-up n= 19; CON, baseline and follow-up n=8).

^bPSA and hs-CRP are analyzed on log-transformed data and estimates for within-group changes and between-group differences are back-transformed and reported as median relative changes/differences with back-transformed 95% CIs.

^cSystolic and diastolic blood pressure, and resting heart rate analysis is based on EX n=9, due to missing data.

^dC-peptide, insulin and cortisol analysis is based on EX n=10, due to missing data.

Abbreviations: BMI, body mass index; CON, control group; EX, exercise group; HDL, high-density lipoproteins; Hs-CRP, high-sensitivity C-reactive protein; IL, interleukin; LDL, low-density lipoproteins; PSA, prostate-specific antigen; Ra, receptor antagonist; RER, respiratory exchange ratio; RPE, rate of perceived exertion; TNF, tumor necrosis factor; W_{peak}, peak power output.