

Acute running and coronary heart disease risk markers in male cigarette smokers and non-smokers: a randomised crossover trial

Authors: Tareq F. Alotaibi, Alice E. Thackray, Matthew J. Roberts, Turki M. Alanazi, Nicolette C. Bishop, Alex J. Wadley, James A. King, Emma O'Donnell, Michael C. Steiner, Sally J. Singh, David J. Stensel

Supplemental Table 2. Time-averaged incremental positive area under the curve values (0-8 h) for postprandial plasma concentrations on day 2 of the control and exercise conditions in cigarette smokers and non-smokers.

	Cigarette smokers (<i>n</i> = 12)		Non-smokers (<i>n</i> = 12)		Non-smokers vs cigarette smokers		Control vs exercise	
	Control	Exercise	Control	Exercise	Mean difference (95% CI) ¹	<i>d</i>	Mean difference (95% CI) ¹	<i>d</i>
TAG (mmol/L h)	1.16 (0.91)	1.15 (0.82)	0.84 (0.48)	0.53 (0.23)	0.47 (-0.05, 1.00)	0.65	-0.16 (-0.38, 0.05)	0.22
NEFA (mmol/L h)	0.16 (0.05)	0.16 (0.05)	0.17 (0.07)	0.18 (0.08)	-0.01 (-0.06, 0.04)	0.19	0.01 (-0.02, 0.03)	0.14
Glucose (mmol/L h)	0.41 (0.19)	0.55 (0.34)	0.40 (0.25)	0.49 (0.30)	0.03 (-0.15, 0.22)	0.16	0.11 (-0.02, 0.24)	0.51
Insulin (pmol/L h)	148 (67)	119 (50)	117 (54)	102 (32)	24 (-16, 64)	0.39	-22 (-41, -2) ³	0.35
CRP (mg/L h)	0.10 (0.09)	0.16 (0.15)	0.03 (0.03)	0.04 (0.05)	0.09 (0.03, 0.15) ²	1.34	0.03 (-0.02, 0.09)	0.49
IL-6 (pg/mL h)	1.57 (1.63)	1.53 (1.42)	1.89 (1.67)	1.53 (1.20)	-0.16 (-1.32, 1.00)	0.10	-0.20 (-0.70, 0.31)	0.12
SOD3 (ng/mL h)	0.14 (0.08)	0.12 (0.10)	0.13 (0.08)	0.11 (0.09)	0.01 (-0.05, 0.08)	0.17	-0.02 (-0.06, 0.01)	0.28
PRDX-4 (ng/mL h)	1.84 (1.06)	1.85 (1.45)	1.70 (1.78)	2.30 (2.00)	-0.15 (-1.21, 0.91)	0.10	0.30 (-0.56, 1.16)	0.21

Values are mean (SD). Calculations for TAG, glucose, insulin, IL-6 and PRDX-4 used the fasting concentration as the reference value. Calculations for NEFA, CRP and SOD3 used the nadir concentration as the reference value due to the propensity for concentrations to decline in response to meal intake. Incremental area under the curve calculations were performed using the automated tool developed by Narang *et al.* (1). Data were analysed using linear mixed models with group (cigarette smokers or non-smokers) and condition (exercise or control) included as fixed factors.

¹ Mean absolute difference (95% CI of the mean absolute difference between the groups or conditions).

² Main effect of group *P* = 0.004.

³ Main effect of condition *P* = 0.029.

Linear mixed models revealed no group-by-condition interactions *P* ≥ 0.146.

CI, confidence interval; TAG, triacylglycerol; NEFA, non-esterified fatty acids; CRP, C-reactive protein; IL-6, interleukin-6; SOD3, superoxide dismutase 3; PRDX-4, peroxiredoxin 4.

References

1. Narang BJ, Atkinson G, Gonzalez JT, Betts JA. A tool to explore discrete-time data: the time series response analyser. *Int J Sports Nutr Ex Metab.* 2020;30:374–81.