Title

The effect of a single bout of continuous aerobic exercise on glucose, insulin and glucagon concentrations compared to resting conditions in non-diabetic adults: A systematic review, meta-analysis and meta-regression.

Journal

Sports Medicine

Authors

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Electronic Supplementary Material Figure S5

DECLARATIONS

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Conflicts of interest

James Frampton, Benjamin Cobbold, Mikhail Nozdrin, Htet Oo, Holly Wilson, Kevin Murphy, Gary Frost and Edward Chambers declare that they have no conflicts of interest relevant to the content of this review.

Availability of Data and Material

Please contact the corresponding author for data requests.

Author Contributions

J.F and E.S.C conceived and designed the study. J.F performed databases searches. J.F, B.C, M.N, H.T.H.O and H.W participated in the screening process. J.F extracted data and performed all statistical analyses. J.F, E.S.C, K.G.M and G.F interpreted results of the analysis. J.F. wrote the initial draft of the manuscript, and critically revised by E.S.C, K.G.M and G.F. All authors read and approved the final manuscript.

Study	pmol/L with 95% CI			Weight (%)
Postprandial				
Schlierf et al. [62]	-57.60	[-96.30,	-18.90]	2.56
Hardman & Aldred [48]	-49.50	[-82.46,	-16.54]	2.75
Ezell et al. [43][a]	-22.20	[-117.78,	73.38]	1.13
Ezell et al. [43][b]	-17.40	[-107.42,	72.62]	1.22
Ezell et al. [43][c]	0.60	[-20.46,	21.66]	3.10
Ronsen et al. [19]	-94.91	[-136.05,	-53.77]	2.48
Marion-Latard et al. [54]	-1.74	[-27.54,	24.06]	2.97
Enevoldsen et al. [14]	-75.00	[-152.33,	2.33]	1.47
Tobin et al. [24]	-28.26	[-85.68,	29.16]	1.97
Ueda et al. [66]	-170.82	[-215.36,	-126.28]	2.37
Ueda et al. [16][a]	-27.12	[-97.31,	43.07]	1.63
Ueda et al. [16][b]	-14.58	[-140.30,	111.14]	0.76
Morris et al. [57]	-6.40	[-23.94,	11.15]	3.19
Farah & Gill [44]	-32.64	[-139.76,	74.48]	0.96
Gonzalez et al. [45][a]	-88.33	[-135.53,	-41.13]	2.28
Isacco et al. [50][a]	36.20	[-20.33,	92.73]	2.00
Isacco et al. [50][b]	-24.40	[-55.37,	6.57]	2.81
Nyhoff et al. [18]	-92.60	[-184.17,	-1.02]	1.19
Heterogeneity: τ^2 = 1750.68, I^2 = 81.29%, H^2 = 5.34	-42.63	[-66.18,	-19.09]	
Test of $\theta_i = \theta_j$: Q(17) = 85.16, p = 0.00				
Fasted				
Petridou et al. [59]	9.24	[-25.81,	44.29]	2.68
Bergfors et al. [37]	-15.60	[-25.35,	-5.85]	3.34
Burns et al. [15]	-16.60	[-45.29,	12.09]	2.88
Numao et al. [58]	-13.40	[-24.10,	-2.70]	3.33
King et al. [51]	-15.20	[-29.07,	-1.33]	3.27
Vendelbo et al. [67]	10.00	[-9.64,	29.64]	3.14
Balaguera-Cortes et al. [36]	17.37	[3.38,	31.37]	3.27
Gonzalez et al. [45][b]	-43.77	[-61.27,	-26.27]	3.19
Hagobian et al. [47][a]	-4.20	[-23.21,	14.81]	3.16
Hagobian et al. [47][b]	-9.00	[-23.37,	5.37]	3.26
Knudsen et al. [25]	-1.29	[-17.36,	14.78]	3.23
Broom et al. [38][a]	-47.00	[-95.54,	1.54]	2.24
Broom et al. [38][b]	18.65	[1.42,	35.88]	3.20
Edinburgh et al. [42]	0.11	[-5.07,	5.29]	3.39
Larsen et al. [52]	-10.92	[-17.74,	-4.11]	3.37
Douglas et al. [41][a]	2.98	[-2.21,	8.17]	3.39
Douglas et al. [41][b]	5.26	[-2.15,	12.67]	3.37
Mattin et al. [55]	2.00	[-21.91,	25.91]	3.03
Siopi et al. [17]	18.00	[-2.57,	38.57]	3.12
Willis et al. [68]	2.27	[-9.70,	14.23]	3.30
Heterogeneity: τ^2 = 206.91, I^2 = 86.69%, H^2 = 7.52	-3.40	[-10.74,	3.94]	
Test of $\theta_i = \theta_j$: Q(19) = 75.81, p = 0.00				
Overall	-18.07	[-30.47,	-5.66]	
Heterogeneity: τ^2 = 1174.98, I^2 = 95.39%, H^2 = 21.71				
Test of $\theta_i = \theta_j$: Q(37) = 190.11, p = 0.00				
Test of group differences: $Q_b(1)$ = 9.72, p = 0.00