

Table S1. CONSORT 2010 checklist of information to include when reporting a randomised trial.

Section/Topic	Item No	Checklist Item	Reported on Page No
Title and abstract			
	1a	Identification as a randomised trial in the title	1
	1b	Structured summary of trial design, methods, results, and conclusions	1
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	1–2
	2b	Specific objectives or hypotheses	2
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	2-3
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	N/A
Participants	4a	Eligibility criteria for participants	3
	4b	Settings and locations where the data were collected	3
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	3-5
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	5
	6b	Any changes to trial outcomes after the trial commenced, with reasons	N/A
Sample size	7a	How sample size was determined	3
	7b	When applicable, explanation of any interim analyses and stopping guidelines	N/A
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	3
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	3
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	3
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	3
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	N/A

Statistical methods	11b	If relevant, description of the similarity of interventions	N/A
	12a	Statistical methods used to compare groups for primary and secondary outcomes	6
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	N/A
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	Figure 2
Recruitment	13b	For each group, losses and exclusions after randomisation, together with reasons	Figure 2
	14a	Dates defining the periods of recruitment and follow-up	6
Baseline data	14b	Why the trial ended or was stopped	N/A
	15	A table showing baseline demographic and clinical characteristics for each group	Table 1
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	6
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	6–8
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	N/A
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	N/A
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	N/A
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	10
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	8–10
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	8–10
Other information			
Registration	23	Registration number and name of trial registry	N/A
Protocol	24	Where the full trial protocol can be accessed, if available	N/A
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	N/A

Table S2. Sitting, standing and stepping outcomes across the experimental regimen days ($n = 12$).

	Uninterrupted Sitting				Interrupted Sitting			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
Daily sitting time (min/day) *	674.2 (581.8, 766.5)	665.1 (572.7, 757.5)	695.3 (602.8, 787.7)	650.1 (557.7, 742.5)	599.9 (507.5, 692.4)	616.7 (524.2, 709.1)	632.7 (539.4, 726.1)	604.7 (510.8, 698.6)
Time in short 0-30 min sitting bouts (min/day) *	278.2 (211.4, 345.0)	273.8 (207.1, 340.7)	279.3 (212.5, 346.2)	307.9 (241.1, 374.7)	309.7 (242.9, 376.6)	338.8 (271.9, 405.7)	344.0 (275.6, 412.3)	335.0 (265.7, 404.4)
Time in prolonged ≥ 30 min sitting bouts (min/day) *	395.9 (306.7, 485.0)	390.7 (301.5, 479.9)	415.1 (325.8, 504.3)	341.8 (252.7, 431.0)	310.6 (221.4, 399.9)	276.8 (187.5, 366.1)	287.1 (195.8, 378.4)	271.7 (179.2, 364.2)
Time in prolonged ≥ 60 min sitting bouts (min/day) *	202.0 (111.2, 292.7)	202.0 (111.2, 292.7)	248.8 (157.9, 339.6)	207.2 (116.5, 298.1)	134.7 (43.9, 225.6)	58.3 (-32.6, 149.3)	75.6 (-18.8, 149.3)	107.0 (11.0, 202.9)
Sit-upright transitions (n)	49.8 (42.8, 56.7)	48.2 (41.2, 55.1)	50.5 (43.5, 57.4)	52.3 (45.3, 59.2)	48.4 (41.4, 55.4)	54.3 (47.3, 61.3)	54.3 (47.1, 61.5)	51.4 (44.0, 58.7)
Short sitting bouts (n)	42.5 (34.9, 50.1)	41.3 (33.7, 48.8)	43.7 (36.1, 51.3)	47.0 (39.4, 54.5)	42.8 (35.2, 50.4)	47.8 (40.2, 55.4)	48.1 (40.3, 55.9)	45.6 (37.6, 53.5)
Prolonged ≥ 30 min sitting bouts (n)	7.3 (5.7, 9.0)	7.2 (5.5, 8.8)	6.9 (5.3, 8.5)	5.6 (4.0, 7.3)	5.7 (4.1, 7.3)	6.7 (5.0, 8.3)	6.5 (4.8, 8.1)	5.9 (4.2, 7.6)
Prolonged ≥ 60 min sitting bouts (n) *	2.6 (1.6, 3.6)	2.4 (1.3, 3.4)	2.9 (1.8, 3.9)	2.4 (1.4, 3.4)	1.2 (0.2, 2.2)	0.7 (-0.3, 1.7)	0.8 (-0.2, 1.9)	1.4 (0.4, 2.5)
Standing time (min/day)	233.0 (147.5, 318.4)	238.4 (152.9, 323.8)	214.8 (129.4, 300.3)	258.1 (172.6, 343.5)	265.0 (179.5, 350.5)	252.0 (166.5, 337.4)	239.4 (153.2, 325.6)	259.9 (173.2, 346.6)
Stepping time (min/day) *	81.1 (60.8, 101.3)	84.7 (64.4, 104.9)	78.0 (57.8, 98.3)	80.0 (59.8, 100.3)	123.3 (103.0, 143.6)	119.4 (99.1, 139.7)	116.2 (95.4, 137.1)	124.2 (103.0, 145.4)
Total steps (n) *	7303 (5300, 9305)	7328 (5324, 9331)	6567 (4562, 8573)	6567 (4564, 8570)	12,592 (10,586, 14,597)	10,321 (8314, 12,328)	10,354 (8280, 12,429)	10,682 (8573, 12,792)

Data displayed as mean (95% confidence interval) *Significant main effect of experimental regimen.

Table S3. Glycaemic responses across the experimental regimen days ($n = 12$).

	Uninterrupted Sitting				Interrupted Sitting			
	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
24-h period								
Mean glucose concentration (mmol/L)	5.7 (5.2, 6.2)	5.5 (5.0, 6.0)	5.7 (5.2, 6.2)	5.7 (5.2, 6.2)	5.5 (5.0, 6.0)	5.6 (5.1, 6.1)	5.6 (5.1, 6.1)	5.6 (5.1, 6.1)
Glucose total AUC (mmol/L·24 h)	131.8 (120.3, 143.3)	124.4 (112.9, 135.9)	134.6 (123.1, 146.2)	136.7 (125.1, 148.2)	136.5 (124.5, 148.5)	133.9 (122.3, 145.4)	131.9 (120.4, 143.4)	136.8 (125.3, 148.3)
Glucose net iAUC (mmol/L·24 h)	4.2 (-3.6, 12.1)	7.2 (-0.7, 15)	5.9 (-2, 13.7)	6.2 (-1.7, 14)	6.9 (-1.1, 14.8)	5.2 (-2.6, 13.1)	4 (-3.8, 11.9)	6.1 (-1.7, 14)
Coefficient of variation, %	19.3 (16.4, 22.1)	19.6 (16.8, 22.3)	20.5 (17.7, 23.2)	16.8 (14.0, 19.7)	19.7 (16.6, 22.7)	19.7 (16.8, 22.5)	19.1 (16.3, 22.0)	16.8 (14.0, 19.7)
Waking hours								
Mean glucose concentration (mmol/L)	5.7 (5.2, 6.2)	6.0 (5.5, 6.5)	5.9 (5.4, 6.4)	5.9 (5.4, 6.4)	5.6 (5.0, 6.1)	5.9 (5.3, 6.4)	5.8 (5.3, 6.4)	5.9 (5.4, 6.5)
Glucose total AUC (mmol/L·waking hours)	98.8 (89.8, 107.7)	103.8 (94.8, 112.7)	100.4 (91.4, 109.3)	101.7 (92.8, 110.7)	101.0 (91.9, 110.1)	100.6 (91.7, 109.6)	98.4 (89.5, 107.3)	100.8 (91.9, 109.7)
Glucose net iAUC (mmol/L·waking hours)	5.4 (-0.7, 11.6)	7.7 (1.6, 13.8)	7.5 (1.4, 13.6)	6.6 (0.5, 12.7)	6.1 (-0.1, 12.4)	4.9 (-1.2, 11.0)	6.1 (0, 12.2)	5.2 (-0.9, 11.3)
Coefficient of variation, %	21.3 (18.7, 23.9)	19.6 (17.0, 22.2)	19.3 (16.7, 21.9)	17.5 (14.9, 20.1)	21.3 (18.4, 24.2)	20.0 (17.2, 22.8)	19.9 (16.9, 22.8)	17.3 (14.1, 20.6)

Data displayed as mean (95% confidence interval). AUC, area under the curve; iAUC, net incremental area under the curve.