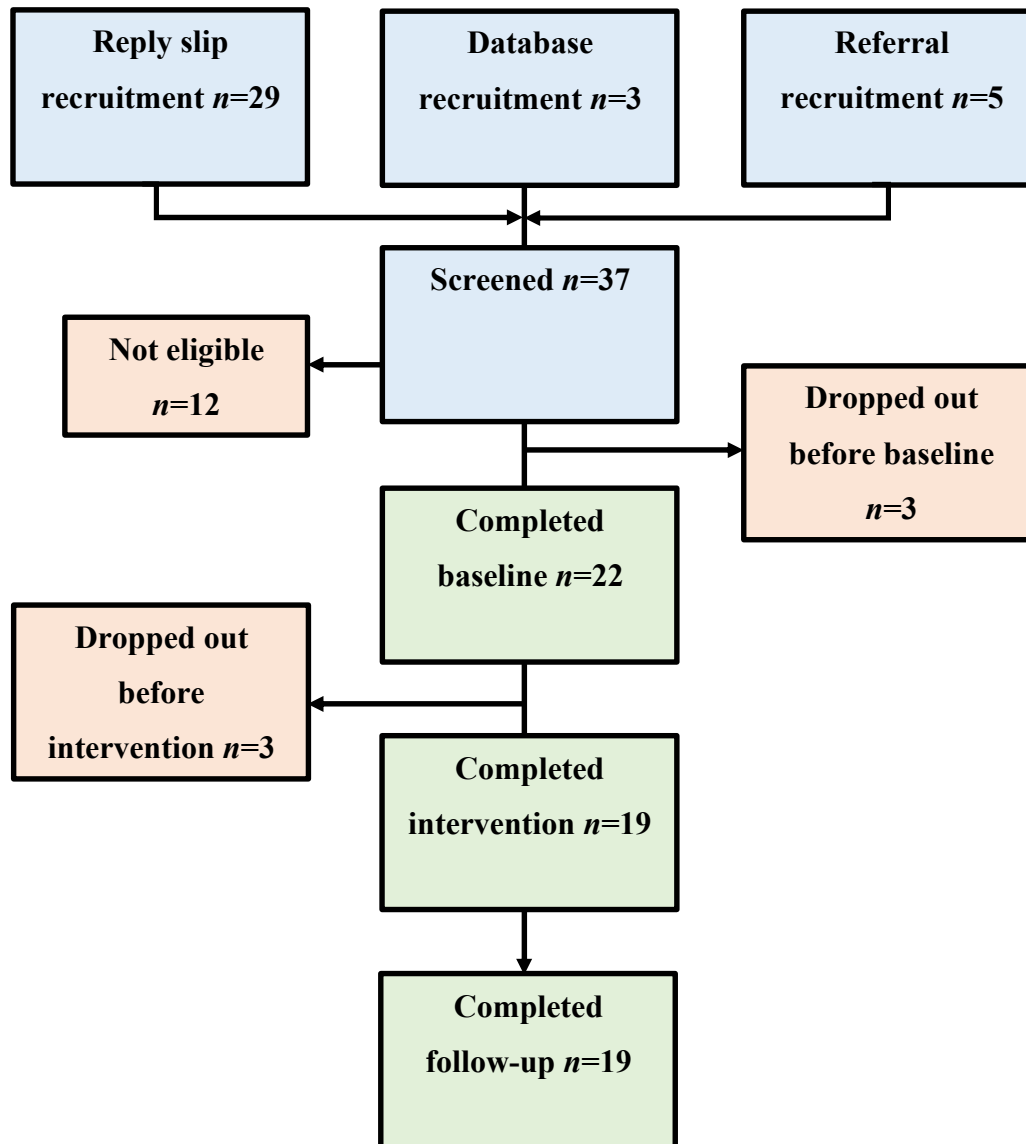
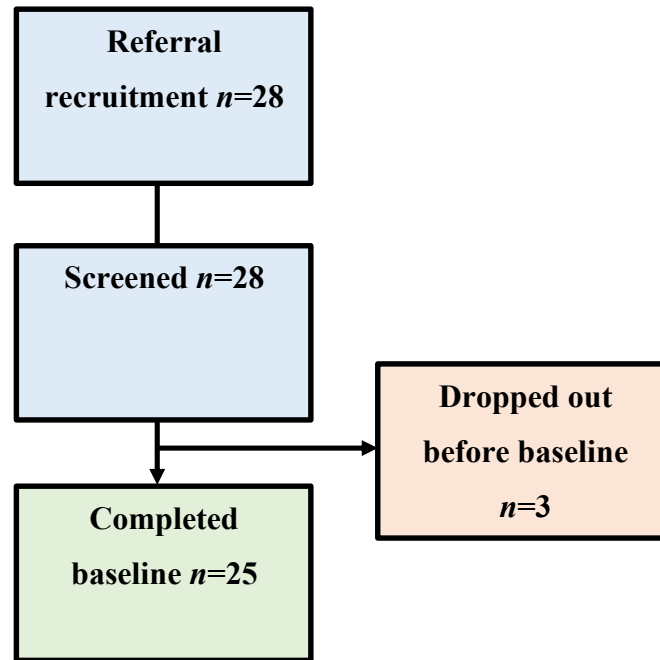




Recruitment pathway for T2D participants in the RESPONSE Study



Recruitment pathway for Healthy Control (HC) participants in the RESPONSE Study

Descriptive information for the RESPONSE Study participants

	T2D Baseline				T2D Follow-up				Healthy Control			
	<i>n</i>	25 IQR	Median	75 IQR	<i>n</i>	25 IQR	Median	75 IQR	<i>n</i>	25 IQR	Median	75 IQR
Weight (kg)	18	69.88	76.50	89.03	18	68.35	76.65	89.60	21	59.05	64.40	89.00
WC (cm)	19	94	101.9	111.2	19	94.00	96.20	104.00	25	82.6	91.2	97.6
MAT-sf	19	57.22	68.99	70.31	19	65.79	68.99	70.31	25	68.99	71.13	73.13
STS-60	19	17	21	22	19	21	26	28	25	22	26	31
4-MGST (sec)	19	2.37	2.69	3.22	19	2.19	2.31	2.59	25	2.3	2.55	3.16
L-HGS (kg)	18	20.00	27.00	35.00	18	21.75	25.50	33	24	22.00	29.50	38.00
R-HGS (kg)	18	23.75	30.00	36.50	18	23.75	29.5	39.5	24	24.00	30.00	35.00
SPPB	19	9	11	11	19	12	12	12	24	11	12	12
SARC-F	18	0	0	0.25	18	0	0	1	22	0	0	0
HADS-D	18	1	4.5	8	18	1	3.5	8.5	22	0	1	4.25
HADS-A	18	3.5	6.5	9.25	18	2.75	5	10.25	22	2	4.5	8.25
mMRC DYSP	18	0	1	1	18	0	0.5	1	22	0	0	0
CFQ-11	18	11	12	15	18	9	11	15	22	5	11	13
MEQ	18	48.75	58.5	63.0	18	52.5	60	63.25	23	51.0	59.0	65.0
NMQ	17	30	33	41	17	32	35	41	21	29.5	33	36.5
EQVAS	18	57.5	82.5	91.25	18	70	80	91.25	22	70	90	95
GENEActiv												
Acceleration (mg)	18	17.48	20.3	24.55	18	18.3	22.3	26.1	25	22.15	27.4	37.05
Intensity Gradient	18	-2.90	-2.75	-2.6	18	-2.85	-2.7	-2.6	25	-2.7	-2.6	-2.42
MVPA Time (1-min bouts) (mins)	18	13.95	27.6	50.08	18	12.05	28.2	44	25	28.17	44.35	71.13
MVPA Time (mins)	18	47.10	92.7	140.48	18	46.67	70.94	103.64	25	72.08	97.88	142.56
Peak 30-minute Step Cadence (continuous) (mg)	18	82.78	130.09	157.23	18	80.5	93.5	135.4	25	116.33	138.3	182.63
Peak 30-minute Step Cadence (total) (mg)	18	116.77	120.85	175.15	18	115.65	146.66	165.79	25	149.95	174.62	237.63
Peak 10-minute Step Cadence (continuous) (mg)	18	103.78	187.33	217.5	18	102.35	127.3	179.65	25	155.48	183.5	257.3
Peak 10-minute Step Cadence (total) (mg)	18	157.18	264.85	329.2	18	161.46	198.53	240.38	25	213.28	245.78	330.95
LPA (mins)	18	233.90	605.3	653.55	18	198.6	233.5	280.15	25	249.15	318.7	374.28
Inactive Time (mins)	18	509.90	92.7	140.48	18	588.15	645.9	677.65	25	468.45	558.1	613.03
Sleep Window (hours)	18	7.18	8.7	9.35	18	7.6	8.2	8.95	25	7.48	8.05	8.88

Sleep Duration (hours)	18	6.38	7.1	7.78	18	6	7	7.35	25	6.13	6.6	7.6
Sleep Efficiency (%)	18	79.40	81.85	87.08	18	73.95	82.6	88.95	25	79.8	84.75	90.1
ActivPAL												
Waking Wear Time (hours)	19	14.81	15.34	16.6	19	14.78	15.36	15.93	25	15.09	15.65	16.22
Sitting Time (hours)	19	8.84	10.11	12.03	19	7.33	9.46	11.51	25	8.4	9.35	10.42
Standing Time (hours)	19	2.58	4.08	4.64	19	2.49	3.75	5.01	25	3.25	4.08	5.34
Stepping Time (hours)	19	1.08	1.65	2.12	19	1.34	1.61	2.35	25	1.57	1.98	2.55
Sitting Bouts	19	33	49	53	19	38	42	50	25	33.5	48	57
Standing Bouts	19	293	410	510	19	322	437	525	25	375	432	587.5
Steps	19	5224	7810	10338	19	6046	8372	10472	25	7042	10086	12728
Sit to Stand Transitions	19	33	49	53	19	38	41	50	25	33.5	48	57
Brisk Steps	19	3524	4792	8018	19	3308	4896	7640	25	4299	6308	9146
Brisk Stepping Time (hours)	19	0.51	0.73	1.15	19	0.48	0.72	1.08	25	0.64	0.9	1.33
Brisk Steps (1-min bouts)	19	724	1920	4034	19	456	1610	4000	25	1471	2202	4146
Brisk Stepping Time (1-min bouts) (hours)	19	0.11	0.28	0.56	19	0.07	0.23	0.58	25	0.19	0.33	0.57
Sitting Bouts (0–30-min bouts)	19	27	43	48	19	31	36	44	25	28.5	45	51.5
Sitting Bouts (30–60-min bouts)	19	3	4	4	19	2	4	4	25	2	3	4
Sitting Bouts (60+ min bouts)	19	1	2	3	19	0	1	2	25	1	1	2
Standing Bouts (0–30-min bouts)	19	292	410	510	19	323	435	521	25	378	432	587.5
Standing Bouts (30+ min bouts)	19	0	0	0	19	0	0	0	25	0	0	0
Stepping Bouts (0–30-min bouts)	19	679	994	1239	19	803	1017	1244	25	977.5	1143	1464.5
Sitting Time (0–30-min bouts) (hours)	19	3.51	3.91	5.04	19	3.64	4.1	4.67	25	3.18	4.2	4.9
Sitting Time (30–60-min bouts) (hours)	19	2.17	2.81	3.34	19	1.86	2.73	3.33	25	1.69	2.51	2.9
Sitting Time (60+ min bouts) (hours)	19	1.47	2.75	5.06	19	1.53	2.24	4	25	1.88	2.55	3.24
Standing Time (0–30-min bouts) (hours)	19	2.58	4.02	4.64	19	2.47	3.53	4.77	25	3.24	4.08	5.35
Standing Time (30+ min bouts) (hours)	19	0	0	0.11	19	0	0	0	25	0	0	0
Stepping Time (0–30-min bouts) (hours)	19	1.1	1.69	2.1	19	1.33	1.61	2.24	25	1.51	1.92	2.51
% waking wear time standing	19	16.12	26.47	29.42	19	14.78	15.36	15.93	25	21.33	26.05	34.8
% waking wear time stepping	19	6.94	9.73	13.3	19	7.33	9.46	11.51	25	10.09	13.65	16.5
% waking wear time sitting	19	55.21	64.64	76.56	19	2.49	3.75	5.01	25	55.09	60.48	67.04
% waking wear time sitting (0–30-min bouts)	19	22.8	25.17	31.55	19	1.34	1.61	2.35	25	20.81	26.37	30.59
% waking wear time sitting (30–60-min bouts)	19	13.78	19.92	21.75	19	38	42	50	25	10.79	16.46	19.23
% waking wear time sitting (60+ min bouts)	19	9.92	18.98	32.07	19	322	437	525	25	11.95	16.92	22.43
CGMS												

Glucose (mmol/L)	19	6.3	7.59	8.68	19	6.35	7.36	8.55	24	4.78	5.09	5.55
HbA1c (%)	19	5.59	6.4	7.09	19	5.62	6.26	7.01	24	4.64	4.83	5.12
Variability SD	19	1.45	1.64	1.99	19	1.51	1.73	2.13	24	0.83	0.86	0.96
Variability %CV	19	0.19	0.23	0.26	19	0.21	0.22	0.26	24	0.15	0.17	0.21
TAR 1 (% of day)	19	0	0	0.52	19	0	0	7.81	24	0	0	0
TAR 2 (% of day)	19	2.83	10.24	24.1	19	3.36	7.99	30.02	24	0	0	0.1
TIR (% of day)	19	75.9	89.43	94.66	19	55.59	92.01	94.97	24	88.18	96.93	99.72
TBR 1 (% of day)	19	0	0	0.74	19	0	0.17	1.89	24	0.28	2.81	10.78
TBR 2 (% of day)	19	0	0	0.13	19	0	0	0	24	0	0	0.55
LBGI	19	0.07	0.17	1.18	19	0.04	0.35	0.94	24	1.14	2.78	3.87
HBGI	19	1.18	2.44	5.31	19	0.96	2.08	8.3	24	0.03	0.1	0.18
Hypoglycaemic Events	19	0	0	7	19	0	0	12	24	0	12.5	26.5
Severe Hypoglycaemic Events	19	0	0	0	19	0	0	0	24	0	0	7.75
Hyperglycaemic Events	19	4	16	27	19	6	14	30	24	0	0	0
Severe Hyperglycaemic Events	19	0	0	0	19	0	0	0	24	0	0	0
AUC	19	1090.75	1208.22	1671.28	19	1032.54	1276.34	1663.74	24	655.27	976.3	1088.62

Comparison between T2D participants and HC participants at baseline and follow-up

	Difference (T2D- BL/HC)	95% CI	<i>p</i>	Difference (T2D- FU/HC)	95%CI	<i>p</i>
Weight (kg)	1.42	-8.55, 11.39	0.780	0.41	-9.23, 10.05	0.934
WC (cm)	8.26	0.81, 15.71	0.030	6.50	-1.01, 14.02	0.090
MAT-sf	-5.63	-9.41, - 1.85	0.004	-4.48	-7.64, - 1.32	0.005
STS-60	-6.10	-9.39, - 2.80	<0.001	-2.63	-6.09, 0.84	0.138
4-MGST (sec)	-0.00	-0.35, 0.35	0.994	-0.32	-0.63, 0.00	0.051
L-HGS (kg)	-3.20	-7.02, 0.62	0.101	-3.23	-7.77, 1.30	0.163
R-HGS (kg)	-1.92	-5.64, 1.80	0.311	-1.35	-5.29, 2.78	0.521
SPPB	-0.81	-3.10, 1.48	0.489	0.85	-1.54, 3.23	0.487
SARC-F	0.64	0.16, 1.13	0.010	0.90	0.32, 1.48	0.002
HADS-D	3.72	2.30, 5.14	<0.001	3.83	2.48, 5.17	<0.01
HADS-A	2.19	0.47, 3.91	0.013	2.28	0.63, 3.93	0.007
mMRC DYSP	0.56	0.09, 1.03	0.020	0.67	0.21, 1.14	0.004
CFQ-11	2.19	-0.20, 4.58	0.072	1.56	-0.78, 3.89	0.191
MEQ	-3.08	-8.43, 2.28	0.260	-3.11	-8.44, 2.23	0.254
NMQ	4.94	0.55, 9.32	0.027	6.67	2.01, 11.33	0.005
EQVAS	-11.06	-17.34, - 4.79	<0.001	-10.19	-16.54, - 3.83	0.002
ActivPAL						
Waking Wear Time (hours)	0.38	-0.42, 1.19	0.348	0.35	-0.40, 1.09	0.361
Sitting Time (hours)	0.63	-0.56, 1.81	0.300	0.76	-0.55, 2.07	0.253
Standing Time (hours)	0.37	-0.62, 1.36	0.461	-0.12	-1.18, 0.95	0.831
Stepping Time (hours)	-0.61	-1.03, - 0.20	0.004	-0.30	-0.71, 0.12	0.158
Sitting Bouts	-1.64	-6.41, 3.12	0.500	0.94	-3.85, 5.73	0.700
Standing Bouts	-55.51	-69.75, - 41.28	<0.001	-12.54	-27.41, 2.32	0.098
Steps	-3131	-5526, - 736	0.010	-1341	-3786, 1104	0.282
Sit to Stand Transitions	-1.60	-6.35, 3.15	0.508	1.04	-3.74, 5.82	0.670

Brisk Steps	-1818	-4119, 483	0.122	-396	-2794, 2003	0.746
Brisk Stepping Time (hours)	-0.26	-0.59, 0.07	0.125	-0.06	-0.41, 0.28	0.721
Brisk Steps (1-min bouts)	-1386	-3407, 635	0.179	-610	-2850, 1629	0.593
Brisk Stepping Time (1-min bouts) (hours)	-0.20	-0.50, 0.09	0.174	-0.10	-0.43, 0.22	0.541
Sitting Bouts (0–30-min bouts)	-1.95	-6.40, 2.51	0.392	0.53	-3.98, 5.03	0.819
Sitting Bouts (30–60-min bouts)	0.22	-1.05, 1.48	0.734	0.34	-0.92, 1.60	0.596
Sitting Bouts (60+ min bouts)	0.04	-0.81, 0.89	0.926	0.08	-0.75, 0.90	0.856
Standing Bouts (0–30-min bouts)	-55.98	-70.22, -41.74	<0.001	-13.26	-28.12, 1.61	0.080
Standing Bouts (30+ min bouts)	0.18	-0.06, 0.41	0.141	0.00	0.00, 0.00	0.339
Stepping Bouts (0–30-min bouts)	-247.80	-270.15, -225.44	<0.001	-109.26	-132.61, -85.91	<0.001
Sitting Time (0–30-min bouts) (hours)	0.27	-0.40, 0.95	0.426	0.61	-0.03, 1.24	0.060
Sitting Time (30–60-min bouts) (hours)	0.20	-0.34, 0.73	0.474	0.21	-0.32, 0.73	0.445
Sitting Time (60+ min bouts) (hours)	-0.23	-1.20, 0.74	0.641	0.02	-0.96, 1.00	0.975
Standing Time (0–30-min bouts) (hours)	0.12	-0.80, 1.05	0.791	-0.18	-1.18, 0.81	0.718
Standing Time (30+ min bouts) (hours)	0.23	0.00, 0.46	0.047	0.03	-0.15, 0.21	0.749
Stepping Time (0–30-min bouts) (hours)	-0.59	-0.99, -0.18	0.004	-0.29	-0.69, 0.11	0.151
% waking wear time standing	1.90	-4.22, 8.01	0.543	3.21	-3.48, 9.90	0.347
% waking wear time stepping	-4.37	-6.90, -1.85	<0.001	-3.10	-5.66, -0.54	0.018
% waking wear time sitting	2.47	-4.79, 9.73	0.505	-0.11	-8.10, 7.88	0.979
% waking wear time sitting (0–30-min bouts)	1.55	-2.77, 5.86	0.482	2.59	-1.21, 6.39	0.182
% waking wear time sitting (30–60-min bouts)	1.03	-2.77, 4.83	0.594	-0.04	-3.86, 3.79	0.985
% waking wear time sitting (60+ min bouts)	-2.51	-8.26, 3.25	0.393	-2.74	-8.53, 3.05	0.353
GENEActiv						
Acceleration (mg)	-9.41	-17.22, -1.59	0.018	-6.52	-12.81, -0.23	0.042
Intensity Gradient	-0.24	-0.47, -0.01	0.045	-0.09	-0.30, 0.11	0.363
MVPA Time (1-min bouts) (mins)	-51.18	-71.65, -30.71	<0.001	-27.59	-48.15, -7.03	0.009

MVPA Time (mins)	-46.03	-74.35, -17.70	0.001	-39.54	-69.21, -9.86	0.009
Peak 30-minute Step Cadence (continuous) (mg)	-55.50	-203.31, 92.32	0.462	-48.81	-161.08, 63.46	0.394
Peak 30-minute Step Cadence (total) (mg)	-58.53	-163.58, 46.52	0.275	-47.83	-153.48, 57.83	0.375
Peak 10-minute Step Cadence (continuous) (mg)	-62.44	-208.24, 83.36	0.401	-53.51	-168.84, 61.81	0.363
Peak 10-minute Step Cadence (total) (mg)	-85.06	-202.59, 32.59	0.156	-71.24	-189.98, 47.51	0.240
LPA (mins)	-27.48	-110.29, 55.33	0.515	-79.98	-138.05, -21.92	0.007
Inactive Time (mins)	87.80	16.81, 158.80	0.015	71.05	2.98, 139.11	0.041
Sleep Window (hours)	0.09	-0.91, 1.08	0.863	-0.25	-0.56, 1.06	0.546
Sleep Duration (hours)	0.17	-0.65, 0.98	0.691	-0.15	-0.89, 0.60	0.703
Sleep Efficiency (%)	0.61	-3.55, 4.78	0.773	-5.01	-9.45, -0.58	0.027
CGMS						
Glucose (mmol/L)	2.36	1.63, 3.09	<0.001	2.44	1.49, 3.40	<0.001
HbA1c (%)	1.49	1.02, 1.95	<0.001	1.54	0.94, 2.14	<0.001
Variability SD	0.75	0.33, 1.17	<0.001	1.10	0.59, 1.61	<0.001
Variability %CV	0.04	-0.02, 0.09	0.162	0.08	0.02, 0.14	0.009
TAR 1 (% of day)	1.33	-0.59, 3.24	0.174	3.49	-0.15, 7.14	0.060
TAR 2 (% of day)	14.18	7.03, 21.33	<0.001	17.84	5.64, 30.04	0.004
TIR (% of day)	-6.76	-16.63, 3.11	0.179	-11.40	-25.36, 2.56	0.109
TBR 1 (% of day)	-7.63	-14.40, -0.86	0.027	-6.44	-13.26, 0.38	0.064
TBR 2 (% of day)	-0.31	-1.12, 0.51	0.458	-0.29	-1.04, 0.47	0.459
LBGI	-2.20	-3.30, -1.10	<0.001	-2.02	-3.10, -0.95	<0.001
HBGI	3.12	1.64, 4.61	<0.001	3.85	1.47, 6.23	0.002
Hypoglycaemic Events	-9.51	-11.80, -7.23	<0.001	-8.36	-10.54, -6.18	<0.001
Severe Hypoglycaemic Events	-2.76	-3.90, -1.62	<0.001	-3.01	-3.93, -2.09	<0.001
Hyperglycaemic Events	18.45	15.91, 20.99	<0.001	14.26	11.88, 16.64	<0.001
Severe Hyperglycaemic Events	1.60	0.81, 2.39	<0.001	1.25	0.55, 1.95	<0.001

AUC	325.25	35.91, 614.59	0.028	401.85	72.26, 731.44	0.017
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Change from baseline to follow-up for the intervention in T2D

	Change	95% CI	p
Weight (kg)	-0.93	-1.78, -0.09	0.031
WC (cm)	-1.08	-2.87, 0.71	0.237
MAT-sf	1.55	-0.36, 3.46	0.111
STS-60	4.47	3.22, 5.72	<0.001
4-MGST (sec)	-0.33	-0.50, -0.15	<0.001
L-HGS (kg)	0.22	-0.29, 2.74	0.862
R-HGS (kg)	1.28	-0.68, 3.24	0.201
SPPB	1.63	1.08, 2.18	<0.001
SARC-F	0.14	-0.12, 0.40	0.303
HADS-D	-0.50	-1.69, 0.69	0.411
HADS-A	-0.63	-1.82, 0.56	0.298
mMRC DYSP	0.05	-0.21, 0.30	0.714
CFQ-11	-0.97	-2.42, 0.48	0.190
MEQ	0.47	-1.20, 2.13	0.581
NMQ	-0.69	-2.85, 1.47	0.532
EQVAS	3.93	-3.20, 11.06	0.280
ActivPAL			
Waking Wear Time (hours)	-0.45	-1.03, 0.13	0.125
Sitting Time (hours)	-0.61	-1.21, -0.00	0.049
Standing Time (hours)	0.06	-0.34, 0.47	0.761
Stepping Time (hours)	0.09	-0.09, 0.27	0.306
Sitting Bouts	-0.58	-4.36, 3.20	0.764
Standing Bouts	24.21	-19.49, 67.91	0.278
Steps	472.63	-571.24, 1516.50	0.375
Sit to Stand Transitions	-0.53	-4.26, 3.21	0.783
Brisk Steps	306.32	-615.06, 1227.69	0.515
Brisk Stepping Time (hours)	0.04	-0.09, 0.17	0.559
Brisk Steps (1-min bouts)	165.47	-786.00, 1116.95	0.733
Brisk Stepping Time (1-min bouts) (hours)	0.02	-0.12, 0.15	0.790
Sitting Bouts (0–30-min bouts)	-0.11	-4.16, 3.95	0.959
Sitting Bouts (30–60-min bouts)	-0.16	-0.67, 0.35	0.545
Sitting Bouts (60+ min bouts)	-0.32	-0.76, 0.12	0.159
Standing Bouts (0–30-min bouts)	23.58	-20.89, 68.05	0.299
Standing Bouts (30+ min bouts)	-0.05	-0.15, 0.05	0.304
Stepping Bouts (0–30-min bouts)	61.47	-52.83, 177.78	0.300
Sitting Time (0–30-min bouts) (hours)	0.15	-0.22, 0.52	0.419
Sitting Time (30–60-min bouts) (hours)	-0.20	-0.55, 0.16	0.278
Sitting Time (60+ min bouts) (hours)	-0.21	-0.62, 0.20	0.323
Standing Time (0–30-min bouts) (hours)	0.13	-0.27, 0.53	0.519
Standing Time (30+ min bouts) (hours)	-0.08	-0.18, 0.01	0.079
Stepping Time (0–30-min bouts) (hours)	0.08	-0.11, 0.26	0.421
% waking wear time standing	1.01	-1.39, 3.41	0.408
% waking wear time stepping	0.97	-0.20, 2.13	0.104
% waking wear time sitting	-1.98	-4.98, 1.03	0.197
% waking wear time sitting (0–30-min bouts)	1.63	-0.44, 3.70	0.122
% waking wear time sitting (30–60-min bouts)	-0.80	-3.19, 1.60	0.515
% waking wear time sitting (60+ min bouts)	-0.46	-3.21, 2.30	0.746
GENEActiv			
Acceleration (mg)	1.38	-0.39, 3.14	0.126
Intensity Gradient	0.07	0.02, 0.13	0.007

MVPA Time (1-min bouts) (mins)	1.28	-6.09, 8.65	0.734
MVPA Time (mins)	4.35	-5.77, 14.47	0.400
Peak 30-minute Step Cadence (continuous) (mg)	8.73	-6.49, 23.95	0.261
Peak 30-minute Step Cadence (total) (mg)	8.50	-2.29, 19.28	0.122
Peak 10-minute Step Cadence (continuous) (mg)	15.39	-3.30, 34.07	0.106
Peak 10-minute Step Cadence (total) (mg)	17.18	-0.89, 35.24	0.062
LPA (mins)	-40.65	-63.09, -18.21	<0.001
Inactive Time (mins)	26.93	-14.86, 68.73	0.207
Sleep Window (hours)	-0.37	-0.72, -0.03	0.034
Sleep Duration (hours)	-0.43	-0.69, -0.18	<0.001
Sleep Efficiency (%)	-1.54	-3.53, 0.45	0.130
CGMS			
Glucose (mmol/L)	0.26	-0.25, 0.77	0.311
HbA1c (%)	0.17	-0.16, 0.49	0.311
Variability SD	0.09	-0.06, 0.23	0.228
Variability %CV	0.01	-0.01, 0.03	0.420
TAR 1 (% of day)	2.17	0.02, 4.32	0.048
TAR 2 (% of day)	4.97	-2.20, 12.14	0.174
TIR (% of day)	-4.79	-11.84, 2.27	0.184
TBR 1 (% of day)	0.10	-0.75, 0.94	0.826
TBR 2 (% of day)	-0.20	-0.54, 0.15	0.263
LBGI	-0.06	-0.36, 0.24	0.676
HBGI	0.92	-0.34, 2.18	0.154
Hypoglycaemic Events	0.79	-4.90, 6.48	0.786
Severe Hypoglycaemic Events	-1.53	-3.45, 0.40	0.120
Hyperglycaemic Events	-0.58	-6.01, 4.85	0.835
Severe Hyperglycaemic Events	2.84	-2.58, 8.26	0.304
AUC	72.61	-192.84, 338.05	0.592