

Study	Duration	Participants	Intervention	Wearable based/ Multi-faceted	n	Age (yr)	BMI	Gender
Ashe, Winters et al. # [29]	6 months	Sedentary women (55-70yrs)	Intervention – Group based education + Fitbit One AT Control – Group based education	Multi-faceted	20	63.9 (4.7)	29.9 (6.8)	F: 100%
Ashton, Morgan et al. # [30]	3 months	Sedentary young men (18-25yrs)	Intervention – Group based education + Jawbone AT Control – Waitlist	Multi-faceted	50	21.1 (2.0)	25.5 (4.6)	M: 100%
Barwais, Cuddihy et al. # [31]	4 weeks	Sedentary Adults	Intervention – Gruve AT with online software Control – Usual lifestyle	Wearable-based	33	27.7 (3.7)	WEIGHT: 78.0 (22.5)	F: 33.3%
Brakenridge, Fjdsoe et al. # [32]	12 months	Office workers	Intervention – Organisational wellness program + LUMOback AT Control – Organisational wellness program	Multi-faceted	153	38.9 (8.0)	24.6 (3.4)	F: 46%
Cadmus-Bertram, Marcus et al. # [21]	16 weeks	Sedentary, post menopausal women with BMI >25	Intervention – Fitbit One AT + written information + phone call Control – Pedometer + written information	Multi-faceted	52	59.9 (7.0)	29.1 (3.5)	F: 100%
Duncan, Vandelanotte et al. # [33]	9 weeks	Sedentary Adults (18-55yrs)	Intervention – Fitbit Charge HR AT+ study specific smartphone app Control – Smartphone app	Wearable-based	64	35.8 (10.2)	27.3 (4.5)	F: 75%
Finkelstein, Haaland et al. # [34]	6-month intervention 6 month follow-up	Office workers (21-65yrs)	Intervention 1 – Fitbit Zip AT + written information Intervention 2 – Fitbit Zip AT + written information + charity donation incentives Intervention 3 – Fitbit Zip AT + written information + cash incentives Control – Written information	Wearable-based Multi-faceted Multi-faceted	800	35.5 (8.5)	WEIGHT: 66.1 (64.1-68.0) ^a	F: 53.7%
Hartman, Nelson et al. 2016 # [35]	6 months	Women with BMI >27.5 & elevated breast cancer risk (40-75yrs)	Intervention – Fitbit One AT + regular phone calls Control – Written information + 2 x brief phone calls	Multi-faceted	54	59.6 (5.7)	31.7 (3.5)	F: 100%

Hartman, Nelson et al. 2018 # [36]	12 weeks	Sedentary, female breast cancer survivors (21-85 yrs)	Intervention – Fitbit One AT + 2 x phone calls + regular emails Control – Waitlist + regular emails (generic health topics)	Multi-faceted	87	57.2 (10.3)	27 (6.3)	F: 100%
Jakicic, Davis et al. # [37]	24 months	Adults with BMI >25 but <40 (25-40yrs)	Intervention – 0-6 months: group-based education. 7-24 months: FitCore AT + group-based education + weekly text messages + monthly phone calls Control – As per intervention but no activity tracker provided	Multi-faceted	470	30.9 (18. – 35.9) ^b	1.2 (24.4 – 39.9) ^b	F: 71.1%
Jauho, Pyly et al. # [38]	3 months	Conscription aged men (assessed in the year they turned 18)	Intervention – Polar Active AT Control – Blinded Polar Active AT	Wearable-based	276	18.0 (0.9)	23.4 (4.5)	M: 100%
Li, Sayre et al. # [39]	1 month	Adults with knee OA (50yrs +)	Intervention – Fitbit Flex AT + weekly phone calls + education sessions Control – Waitlist	Multi-faceted	34	55.5 (8.6)	27.2 (4.7)	F: 82%
Lyons, Swarz et al. # [40]	12 weeks	Adults with BMI >25 but <35 (55-79yrs)	Intervention – Jawbone UP 24 AT + idle alert + weekly phone calls Control – Waitlist	Multi-faceted	40	61.5 (5.6)	30.3 (3.5)	F: 85%
Martin, Feldman et al. # [41]	P1: 2 wks P2: 2 wks	Adults (18-69yrs)	Intervention – Fitbug AT + 3 x daily text messages Control – Blinded Fitbug AT	Wearable-based	48	58 (8)	31 (6)	F: 46%
Melton, Buman et al. # [42]	6 weeks 8-week follow-up	College aged African American women (18-24yrs)	Intervention – Jawbone UP AT + weekly emails Control – Dietary intake self-monitoring through MyFitnessPal + weekly emails	Wearable-based	69	19.7 (1.8)	27.3 (6.8)	F: 100%
Pellegrini, Vebra et al. # [43]	6 months	Overweight adults (21-55yrs)	Intervention 1 – Group based education + BodyMedia Fit AT Intervention 2 – BodyMedia Fit AT + written information + phone calls Control – Group education sessions	Multi-faceted Multi-faceted	51	44.2 (8.7)	33.7 (3.6)	F: 86.3%
Poirier, Bennett et al	6 weeks	Office workers	Intervention – Pebble+ AT + online walking program + 4 x daily text messages Control – Usual lifestyle	Wearable-based	265	39.9 (11.7)	-	F: 66%

# [44]									
Polzien, Jakicic et al.	12 weeks	Adults (18-55yrs)	Intervention 1 – BodyMedia Sensewear armband AT + individual counselling sessions Intervention 2 – As per intervention 1 but AT only worn during weeks 1, 5 and 9 Control - Individual education sessions	Multi-faceted	57	41.3 (8.7)	33.1 (2.8)	F: 98%	
# [45]				Multi-faceted					
Rogers, Lang et al.	6 months	Adults (21-55yrs)	Intervention 1 – BodyMedia Fit + written information + monthly phone calls Intervention 2 – BodyMedia Fit + smartphone app + written information + monthly phone calls Control – Group based education	Multi-faceted	39	39.9 (11.5)	39.5 (2.8)	F: 79.5%	
# [46]				Multi-faceted					
Shin, Yun et al.	12 weeks	Male students (19-45yrs)	Intervention 1 – Fitmeter AT + study specific smartphone app + written information Intervention 2 – As per intervention 1 plus financial incentives for reaching step and body weight goals Control – Written information	Wearable-based	35	27.8 (5.0)	29.8 (2.7)	M: 100%	
# [47]				Multi-faceted					
Skrepnik, Spritzer et al.	90 days	Adults with knee OA eligible for Hylan G-F 20 (30-80yrs)	Intervention – Jawbone UP 24 AT + study specific smartphone app + written information Control – Blinded Jawbone UP 24 AT + written information	Wearable-based	211	62.6 (9.4)	29.3 (3.7)	F:50.2%	
# [22]									
Slootmaker, Chinapaw et al.	3 months	Office workers (20-40yrs)	Intervention – Pam AT + interactive website Control – Written information	Wearable-based	102	31.8(3.5)	25.2 (4.1)	F: 60%	
# [48]									
Thompson, Kuhle et al. ^c	12 months (6-month cross over)	Sedentary, overweight older adults (65-95yrs)	Intervention – Fitbit AT + written information + weekly phone calls + bi-monthly individual education sessions Control – Blinded Fitbit AT	Multi-faceted	48	79.5 (7.0)	WEIGHT: 78.4 (13.5)	F: 81%	
# [49]									
Thorndike, Mills et al.	Phase 1: 6 weeks Phase 2: 6 weeks	Medical residents	Intervention –Fitbit AT + weekly email reminders with offer of incentives for wearing device Control – As per intervention but with a blinded Fitbit AT	Multi-faceted	104	29 (23-37) ^a	24.1 (17.8-35.6) ^a	F: 54%	
# [50]									

Unick, O'Leary et al. # [51]	6 months	Obese, sedentary adults (21-55yrs)	Intervention – Group based education + Body Media Fit AT Control – Group based education	Multi-faceted	29	42.4 (9.2)	45.0 (3.9)	F: 82%
Valle, Deal et al. # [52]	6 months	African American breast cancer survivors (18yrs +)	Intervention 1 – Individual education sessions, weekly emails, smartphone app paired with wi-fi scales. <i>No use of an activity tracker</i> Intervention 2 – As per intervention 1 + Withings AT Control – waitlist	No AT used Multi-faceted	35	53.1 (9.1)	34.0 (6.0)	F: 100%
van der Weegen, Verwey et al. # [53]	6 months 3-month follow-up	Primary care patients with T2DM or COPD (40-70yrs)	Intervention 1 – 4 x consultations with practice nurse. <i>No use of an AT</i> Intervention 2 – As per intervention 1 + unspecified AT + smartphone and web app Control – Usual care	No AT used Multi-faceted	199	57.9 (7.6)	29.4 (5.3)	F: 51.3%
Van Hoya, Boen et al. ^c # [54]	4-weeks	Adults aged (19-67 yrs)	Intervention 1 – Pedometer. <i>No use of an AT</i> Intervention 2 – BodyMedia Sensewear armband AT Intervention 3 – BodyMedia Sensewear armband AT + weekly sessions with a personal coach Control – Baseline measures discussed in relation to national activity recommendations	No AT used Wearable-only Multi-faceted	221	42.4 (10.4)	27.1 (4.0)	F: 54.3%

AT = Activity tracker, ^a = range, ^b = 25th-75th percentile, ^c = studies not included in meta-analysis