

SUPPLEMENTAL MATERIALS

Supplemental Table 1. Cohort characteristics by self-reported walking pace category in women.

Characteristics	Slow pace	Average pace	Brisk pace
Women	4,567	45,627	38,877
Age, years (mean, SD)	58.2 (7.6)	56.9 (7.9)	55.1 (8.0)
Townsend Deprivation Index, n (%)			
Lower deprivation	1,034 (22.6)	15,249 (33.4)	13,985 (36.0)
Middle deprivation	1,441 (31.6)	15,816 (34.7)	13,617 (35.0)
Higher deprivation	2,092 (45.8)	14,562 (31.9)	11,275 (29.0)
Ethnicity, n (%)			
White	4,161 (91.1)	43,704 (95.8)	37,801 (97.2)
Mixed	120 (2.6)	555 (1.2)	431 (1.1)
South Asian	183 (4.0)	735 (1.6)	280 (0.7)
Black	76 (1.7)	480 (1.1)	300 (0.8)
Chinese	27 (0.6)	153 (0.3)	65 (0.2)
Education, n (%)			
College or University degree	1,290 (40.2)	16,153 (43.7)	17,214 (50.2)
A levels/AS levels or equivalent	452 (14.1)	5,107 (13.8)	5,073 (14.8)
O levels/GCSEs or equivalent	957 (29.8)	11,094 (30.0)	8,802 (25.7)
SEs or equivalent/NVQ or HND or HNC	514 (16.0)	4,638 (12.5)	3,225 (9.4)
Smoking status, n (%)			
Never	2,458 (53.8)	27,289 (59.8)	23,827 (61.3)
Previous	1,470 (32.2)	14,358 (31.5)	12,133 (31.2)
Current	639 (14.0)	3,980 (8.7)	2,917 (7.5)
Sleep categories, n (%)			
Normal (7-9 h per day)	2,893 (63.4)	34,276 (75.1)	29,906 (76.9)

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Short sleep (<7 h per day)	1,439 (31.5)	10,584 (23.2)	8,602 (22.1)
Long sleep (>9 h per day)	235 (5.2)	767 (1.7)	369 (1.0)
Diets & Lifestyles			
Alcohol intake, n (%)			
Daily or almost daily	487 (10.7)	6,946 (15.2)	7,221 (18.6)
3-4 times a week	576 (12.6)	9,109 (20.0)	9,633 (24.8)
Once or twice a week	1,010 (22.1)	12,366 (27.1)	10,571 (27.2)
1-3 times a month	626 (13.7)	6,285 (13.8)	4,725 (12.2)
Special occasions only	1,008 (22.1)	6,852 (15.0)	4,238 (10.9)
Never	860 (18.8)	4,067 (8.9)	2,489 (6.4)
Process meat intake, portion/week (mean, SD)	1.7 (1.1)	1.6 (1.0)	1.4 (1.0)
Fruit and vegetable intake, g/day (mean, SD)	337.3 (204.0)	345.1 (183.0)	377.9 (192.8)
Red meat intake, portion/week (mean, SD)	2.1 (1.5)	2.0 (1.4)	1.9 (1.3)
Total Sedentary time, h/day (mean, SD)	5.2 (2.4)	4.7 (2.0)	4.4 (1.9)
Total physical activity, MET-hr/week (mean, SD)	1,855.9 (2,254.9)	2,521.2 (2,634.2)	3,012.9 (2,952.6)
Grip strength (kg)	19.7 (6.8)	23.1 (6.0)	24.8 (5.9)
Systolic blood pressure, mmHg (mean, SD)	138.4 (19.3)	136.6 (19.3)	133.1 (19.0)
Adiposity			
Waist circumference, cm (mean, SD)	93.6 (14.3)	85.4 (11.6)	79.7 (9.8)
BMI, kg/m ² (mean, SD)	31.1 (6.7)	27.5 (4.8)	25.1 (3.8)
BMI category, n (%)			
Underweight (<18.5 kg/m ²)	22 (0.5)	238 (0.5)	431 (1.1)
Normal (18.5-24.9 kg/m ²)	784 (17.2)	14,885 (32.6)	21,144 (54.4)
Overweight (25-29.9 kg/m ²)	1,360 (29.8)	18,676 (40.9)	13,404 (34.5)

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Obese (≥ 30.0 kg/m ²)	2,401 (52.6)	11,828 (25.9)	3,898 (10.0)
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Data is presented as mean and SD for continuous variables and as frequency and % for categorical variables.

SD, standard deviation; g, gram; h, hour; MET, metabolic equivalent task; cm, centimetre; kg, kilogram; mmHg, millimetre of mercury; BMI, body mass index; m, metre

Supplemental Table 2. Cohort characteristics by self-reported walking pace category in men.

Characteristics	Slow pace	Average pace	Brisk pace
Men	3,597	37,554	31,933
Age, years (mean, SD)	59.5 (7.6)	57.4 (8.1)	55.5 (8.2)
Townsend Deprivation Index, n (%)			
Lower deprivation	805 (22.4)	12,727 (33.9)	11,883 (37.2)
Middle deprivation	994 (27.6)	12,868 (34.3)	11,068 (34.7)
Higher deprivation	1,798 (50.0)	11,959 (31.8)	8,982 (28.1)
Ethnicity, n (%)			
White	3,313 (92.1)	35,847 (95.5)	31,171 (97.6)
Mixed	66 (1.8)	383 (1.0)	257 (0.8)
South Asian	155 (4.3)	847 (2.3)	315 (1.0)
Black	51 (1.4)	387 (1.0)	156 (0.5)
Chinese	12 (0.3)	90 (0.3)	34 (0.1)
Education, n (%)			
College or University degree	892 (39.3)	13,386 (44.3)	15,197 (53.1)
A levels/AS levels or equivalent	269 (11.9)	3,618 (12.0)	3,664 (12.8)
O levels/GCSEs or equivalent	622 (27.4)	7,277 (24.1)	5,672 (19.8)
SEs or equivalent/NVQ or HND or HNC	486 (21.4)	5,938 (19.7)	4,071 (14.2)
Smoking status, n (%)			
Never	1,264 (35.1)	18,090 (48.2)	17,620 (55.2)
Previous	1,592 (44.3)	14,803 (39.4)	11,278 (35.3)
Current	741 (20.6)	4,661 (12.4)	3,035 (9.5)
Sleep categories, n (%)			
Normal (7-9 h per day)	2,253 (62.6)	28,105 (74.8)	24,290 (76.1)
Short sleep (<7 h per day)	1,111 (30.9)	8,934 (23.8)	7,406 (23.2)
Long sleep (>9 h per day)	233 (6.5)	515 (1.4)	237 (0.7)
Diets & Lifestyles			

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Alcohol intake, n (%)			
Daily or almost daily	821 (22.8)	9,547 (25.4)	8,714 (27.3)
3-4 times a week	684 (19.0)	10,105 (26.9)	9,601 (30.1)
Once or twice a week	872 (24.2)	10,073 (26.8)	8,004 (25.1)
1-3 times a month	339 (9.4)	3,233 (8.6)	2,632 (8.2)
Special occasions only	430 (12.0)	2,513 (6.7)	1,651 (5.2)
Never	451 (12.5)	2,083 (5.6)	1,330 (4.2)
Process meat intake, portion/week (mean, SD)	2.30 (1.1)	2.22 (1.0)	2.08 (1.1)
Fruit and vegetable intake, g/day (mean, SD)	289.8 (217.7)	298.6 (192.0)	322.6 (192.6)
Red meat intake, portion/week (mean, SD)	2.4 (1.7)	2.3 (1.5)	2.2 (1.5)
Total Sedentary time, h/day (mean, SD)	5.8 (2.7)	5.5 (2.3)	5.1 (2.2)
Total physical activity, MET-hr/week (mean, SD)	2,199.9 (2,637.6)	3,200.7 (3,457.6)	3,243.9 (3,447.0)
Grip strength (kg)	34.7 (9.8)	39.4 (8.5)	41.3 (8.3)
Systolic blood pressure, mmHg (mean, SD)	141.4 (18.4)	142.2 (17.7)	140.0 (17.1)
Adiposity			
Waist circumference, cm (mean, SD)	102.0 (12.7)	97.3 (10.6)	93.2 (9.5)
BMI, kg/m ² (mean, SD)	29.5 (5.1)	28.0 (4.0)	26.6 (3.4)
BMI category, n (%)			
Underweight (<18.5 kg/m ²)	16 (0.4)	67 (0.2)	73 (0.2)
Normal (18.5-24.9 kg/m ²)	598 (16.6)	8,086 (21.5)	10,710 (33.5)
Overweight (25-29.9 kg/m ²)	1,492 (41.5)	19,365 (51.6)	16,465 (51.6)
Obese (≥ 30.0 kg/m ²)	1,491 (41.5)	10,036 (26.7)	4,685 (14.7)

Data is presented as mean and SD for continuous variables and as frequency and % for categorical variables.

SD, standard deviation; g, gram; h, hour; MET, metabolic equivalent task; cm, centimetre; kg, kilogram; mmHg, millimetre of mercury; BMI, body mass index; m, metre

Supplemental Table 3. Association of T2D incidence and self-reported walking pace by tertiles of total physical activity

		Model 0		Model 1	
Walking pace categories	Physical Activity Tertiles	HR (95% CI)	<i>P</i> -value	HR (95% CI)	<i>P</i> -value
Women					
Brisk pace	High	1.00 (Ref)		1.00 (Ref)	
	Middle	1.18 (0.92;1.52)	.185	1.20 (0.93; 1.54)	.160
	Low	1.31 (1.01; 1.69)	.037	1.30 (1.01; 1.69)	.043
Average pace	High	2.47 (2.00; 3.04)	<.001	2.24 (1.82; 2.76)	<.001
	Middle	2.27 (1.84; 2.80)	<.001	2.07 (1.68; 2.55)	<.001
	Low	2.44 (1.99; 3.00)	<.001	2.20 (1.79; 2.71)	<.001
Slow pace	High	3.49 (2.40; 5.07)	<.001	2.70 (1.85; 3.93)	<.001
	Middle	5.71 (4.30; 7.59)	<.001	4.36 (3.27; 5.82)	<.001
	Low	5.98 (4.65; 7.54)	<.001	4.61 (3.61; 5.89)	<.001
		<i>P</i> -interaction	.559	<i>P</i> -interaction	.614
Men					
Brisk pace	High	1.00 (Ref)		1.00 (Ref)	

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	Middle	1.15 (0.94; 1.40)	.169	1.16 (0.95; 1.42)	.138
	Low	1.42 (1.17; 1.72)	<.001	1.40 (1.15; 1.71)	.001
Average pace	High	1.84 (1.55; 2.18)	<.001	1.74 (1.46; 2.06)	<.001
	Middle	1.92 (1.61; 2.27)	<.001	1.82 (1.53; 2.16)	<.001
	Low	2.40 (2.03; 2.83)	<.001	2.24 (1.90; 2.65)	<.001
Slow pace	High	2.71 (1.97; 3.74)	<.001	2.27 (1.64; 3.13)	<.001
	Middle	3.44 (2.63; 4.49)	<.001	2.80 (2.14; 3.67)	<.001
	Low	3.59 (2.88; 4.48)	<.001	3.00 (2.40; 3.75)	<.001
		<i>P</i> -interaction	.410	<i>P</i> -interaction	.378

Data is presented as hazard ratio (HR) and 95% CI by walking pace and total physical activity tertiles. Brisk walkers with high levels of physical activity were set as the reference group (Ref.). Models were adjusted incrementally, Model 0 (minimally adjusted) included age, ethnicity, deprivation index, and education. Model 1 was adjusted as in model 0 but also included smoking, fruit and vegetable intake, red meat intake, processed meat intake, alcohol intake, total sedentary time, and sleep time.

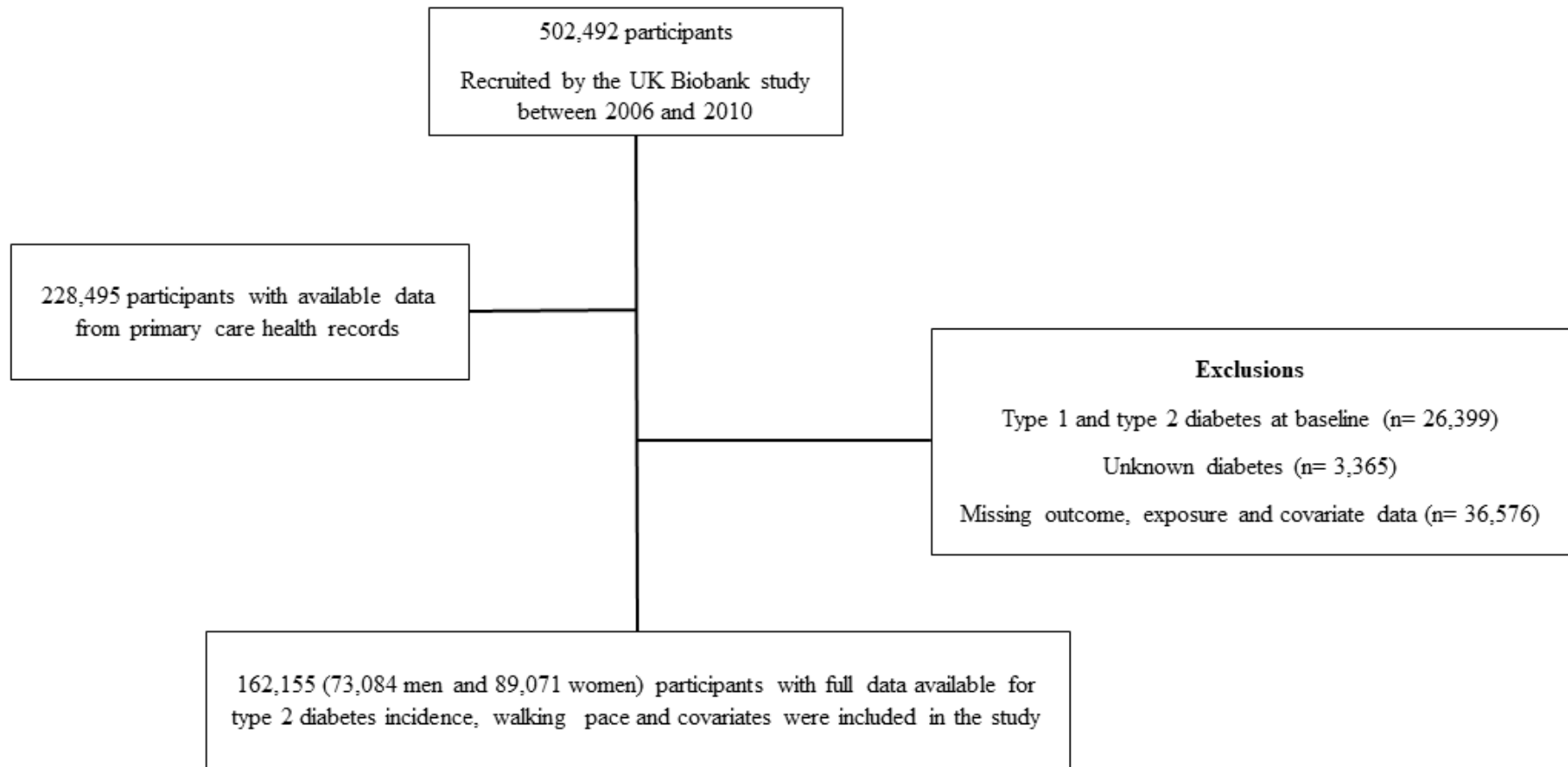
Supplemental Table 4. Association of T2D incidence and self-reported walking pace by tertiles of walking time

		Model 0		Model 1	
Walking pace categories	Walking time tertiles	HR (95% CI)	<i>P</i> -value	HR (95% CI)	<i>P</i> -value
Women					
Brisk pace	High	1.00 (Ref)		1.00 (Ref)	
	Middle	1.23 (0.96; 1.57)	.098	1.24 (0.98; 1.59)	.079
	Low	1.21 (0.94; 1.56)	.148	1.21 (0.94; 1.56)	.146
Average pace	High	2.18 (1.77; 2.68)	<.001	2.16 (1.76; 2.65)	<.001
	Middle	2.39 (1.94; 2.93)	<.001	2.00 (1.62; 2.46)	<.001
	Low	2.33 (1.91; 2.86)	<.001	2.10 (1.71; 2.57)	<.001
Slow pace	High	4.09 (2.96; 5.66)	<.001	3.09 (2.23; 4.29)	<.001
	Middle	5.36 (4.26; 6.73)	<.001	4.08 (3.24; 5.15)	<.001
	Low	5.58 (4.21; 7.39)	<.001	4.35 (3.28; 5.78)	<.001
		<i>P</i> -interaction	.462	<i>P</i> -interaction	.504
Men					
Brisk pace	High	1.00 (Ref)		1.00 (Ref)	

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	Middle	1.08 (0.89; 1.30)	.446	1.09 (0.90; 1.32)	.365
	Low	1.11 (0.92; 1.34)	.263	1.11 (0.92; 1.33)	.298
Average pace	High	1.81 (1.55; 2.12)	<.001	1.71 (1.46; 2.01)	<.001
	Middle	1.83 (1.55; 2.15)	<.001	1.73 (1.47; 2.04)	<.001
	Low	1.86 (1.59; 2.18)	<.001	1.73 (1.47; 2.03)	<.001
Slow pace	High	3.09 (2.35; 4.05)	<.001	2.52 (1.92; 3.31)	<.001
	Middle	2.72 (2.09; 3.55)	<.001	2.26 (1.73; 2.95)	<.001
	Low	3.44 (2.81; 4.20)	<.001	2.79 (2.28; 3.42)	<.001
		<i>P</i> -interaction	.333	<i>P</i> -interaction	.308

Data are presented as hazard ratio (HR) and 95% CI by walking pace and total physical activity tertiles. Brisk walkers with high levels of walking time were set as the reference group (Ref.). Models were adjusted incrementally; Model 0 (minimally adjusted) included age, ethnicity, deprivation index, and education. Model 1 was adjusted as in model 0 but also included smoking, fruit and vegetable intake, red meat intake, processed meat intake, alcohol intake, total sedentary time, and sleep time.



Supplemental Figure 1. Flowchart participants