

# Association of walking pace and handgrip strength with all-cause, cardiovascular and cancer mortality: A UK Biobank observational study

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## Supplementary Material

**Table S1:** Hazard ratios of walking pace with all-cause, cancer, and cardiovascular mortality

**Table S2:** Hazard ratios of handgrip strength with all-cause, cancer, and cardiovascular mortality

**Figure S1:** Participant flow diagram

**Figure S2:** C-indexes and calibration plots

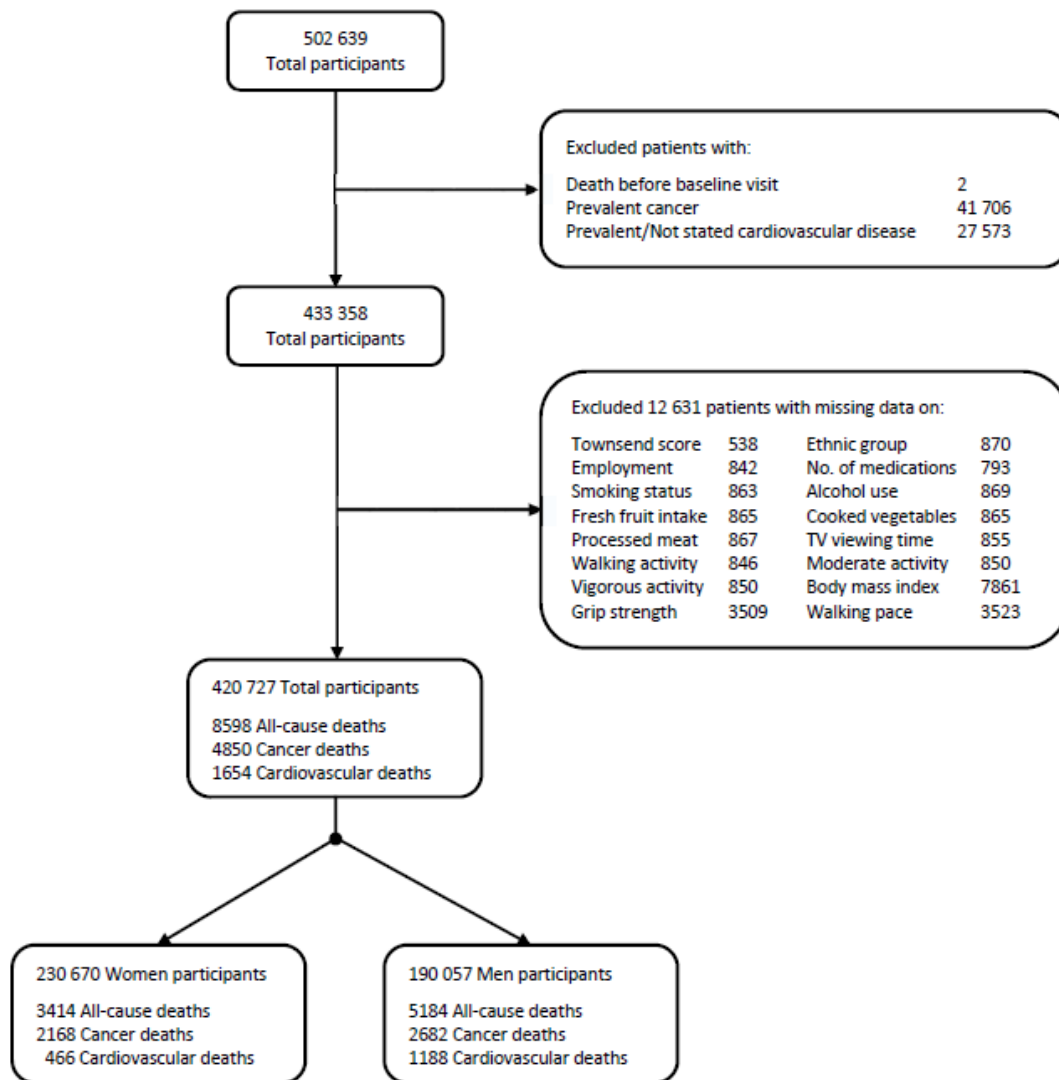
**Table S1:** Hazard ratios of walking pace with all-cause, cancer, and cardiovascular mortality

Model	Category (pace)	Mortality		
		All-cause	Cancer	Cardiovascular
<b>Women (hazard ratio, 95% CI)</b>				
Reference	Brisk	1	1	1
1	Average	1.22 (1.13, 1.32)	1.15 (1.05, 1.26)	1.41 (1.12, 1.76)
1	Slow	2.54 (2.28, 2.81)	1.52 (1.31, 1.76)	4.19 (3.21, 5.47)
2	Average	1.16 (1.08, 1.26)	1.13 (1.03, 1.24)	1.28 (1.02, 1.61)
2	Slow	1.86 (1.66, 2.09)	1.32 (1.12, 1.54)	2.73 (2.04, 3.66)
3	Average	1.11 (1.03, 1.20)	1.08 (0.98, 1.19)	1.19 (0.95, 1.50)
3	Slow	1.64 (1.46, 1.85)	1.18 (1.00, 1.38)	2.21 (1.64, 2.97)
4	Average	1.10 (1.01, 1.19)	1.06 (0.96, 1.17)	1.16 (0.92, 1.47)
4	Slow	1.58 (1.39, 1.79)	1.12 (0.94, 1.34)	2.00 (1.44, 2.78)
5	Average	1.09 (1.01, 1.19)	1.06 (0.96, 1.18)	1.16 (0.91, 1.46)
5	Slow	1.56 (1.37, 1.77)	1.12 (0.94, 1.34)	1.97 (1.41, 2.74)
+ Excl. first 2 years	Average	1.07 (0.98, 1.16)	1.04 (0.94, 1.16)	1.12 (0.86, 1.45)
+ Excl. first 2 years	Slow	1.45 (1.27, 1.67)	1.03 (0.85, 1.24)	1.95 (1.35, 2.81)
<b>Men (hazard ratio, 95% CI)</b>				
Reference	Brisk	1	1	1
1	Average	1.39 (1.30, 1.48)	1.24 (1.14, 1.34)	1.63 (1.41, 1.87)
1	Slow	3.23 (2.96, 3.52)	1.77 (1.55, 2.03)	4.83 (4.06, 5.73)
2	Average	1.29 (1.21, 1.37)	1.19 (1.10, 1.30)	1.45 (1.26, 1.67)
2	Slow	2.06 (1.87, 2.27)	1.45 (1.25, 1.68)	2.52 (2.08, 3.07)
3	Average	1.21 (1.13, 1.29)	1.10 (1.01, 1.20)	1.35 (1.17, 1.56)
3	Slow	1.79 (1.63, 1.97)	1.24 (1.07, 1.43)	2.19 (1.80, 2.67)
4	Average	1.18 (1.11, 1.26)	1.07 (0.98, 1.17)	1.29 (1.12, 1.49)
4	Slow	1.67 (1.51, 1.85)	1.13 (0.97, 1.32)	1.94 (1.58, 2.39)
5	Average	1.17 (1.10, 1.25)	1.07 (0.98, 1.17)	1.27 (1.10, 1.47)
5	Slow	1.63 (1.47, 1.81)	1.13 (0.97, 1.33)	1.87 (1.52, 2.30)
+ Excl. first 2 years	Average	1.13 (1.05, 1.21)	1.05 (0.96, 1.16)	1.19 (1.01, 1.39)
+ Excl. first 2 years	Slow	1.55 (1.38, 1.73)	1.06 (0.90, 1.26)	1.75 (1.39, 2.20)

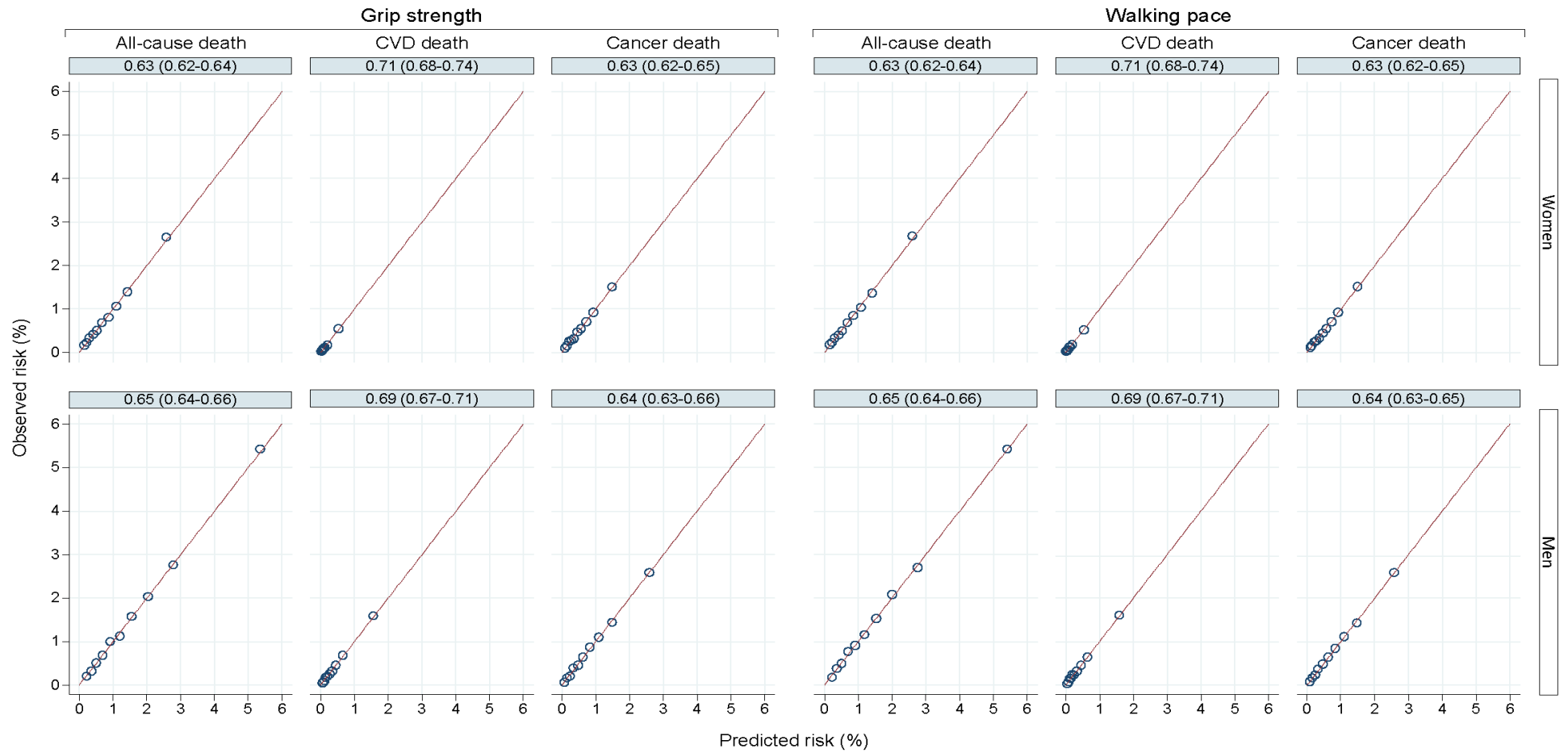
**Table S2:** Hazard ratios of handgrip strength with all-cause, cancer, and cardiovascular mortality

Model	Category (tertile)	Mortality		
		All-cause	Cancer	Cardiovascular
<b>Women (hazard ratio, 95% CI)</b>				
Reference	Top	1	1	1
1	Middle	1.11 (1.01, 1.22)	1.02 (0.90, 1.14)	1.04 (0.79, 1.36)
1	Bottom	1.30 (1.19, 1.42)	1.06 (0.95, 1.18)	1.42 (1.11, 1.81)
2	Middle	1.08 (0.98, 1.19)	1.00 (0.89, 1.13)	0.99 (0.76, 1.30)
2	Bottom	1.17 (1.07, 1.28)	1.01 (0.91, 1.13)	1.20 (0.94, 1.54)
3	Middle	1.07 (0.98, 1.18)	1.00 (0.90, 1.13)	0.98 (0.75, 1.28)
3	Bottom	1.16 (1.05, 1.27)	1.01 (0.90, 1.13)	1.15 (0.90, 1.48)
4	Middle	1.07 (0.97, 1.18)	1.00 (0.89, 1.13)	0.98 (0.75, 1.28)
4	Bottom	1.13 (1.04, 1.24)	1.01 (0.90, 1.13)	1.13 (0.88, 1.45)
5	Middle	1.06 (0.96, 1.17)	1.00 (0.89, 1.12)	0.96 (0.73, 1.26)
5	Bottom	1.10 (1.00, 1.21)	1.00 (0.89, 1.12)	1.07 (0.83, 1.37)
+ Excl. first 2 years	Middle	1.05 (0.95, 1.16)	1.01 (0.90, 1.15)	0.91 (0.68, 1.23)
+ Excl. first 2 years	Bottom	1.08 (0.98, 1.20)	1.01 (0.89, 1.13)	1.01 (0.77, 1.34)
<b>Men (hazard ratio, 95% CI)</b>				
Reference	Top	1	1	1
1	Middle	1.07 (0.99, 1.15)	0.91 (0.83, 1.01)	1.31 (1.11, 1.55)
1	Bottom	1.42 (1.33, 1.53)	1.03 (0.94, 1.14)	1.81 (1.55, 2.11)
2	Middle	1.01 (0.94, 1.09)	0.89 (0.81, 0.99)	1.22 (1.03, 1.44)
2	Bottom	1.22 (1.14, 1.31)	0.97 (0.88, 1.07)	1.44 (1.23, 1.69)
3	Middle	1.00 (0.93, 1.08)	0.89 (0.80, 0.98)	1.21 (1.02, 1.43)
3	Bottom	1.21 (1.12, 1.30)	0.96 (0.87, 1.06)	1.43 (1.22, 1.67)
4	Middle	1.00 (0.93, 1.08)	0.89 (0.80, 0.99)	1.22 (1.04, 1.45)
4	Bottom	1.19 (1.11, 1.28)	0.95 (0.87, 1.05)	1.44 (1.23, 1.68)
5	Middle	1.00 (0.92, 1.07)	0.89 (0.80, 0.98)	1.21 (1.03, 1.43)
5	Bottom	1.16 (1.08, 1.25)	0.95 (0.86, 1.04)	1.38 (1.18, 1.62)
+ Excl. first 2 years	Middle	0.96 (0.89, 1.05)	0.88 (0.79, 0.98)	1.16 (0.97, 1.40)
+ Excl. first 2 years	Bottom	1.08 (1.00, 1.17)	0.89 (0.81, 0.99)	1.31 (1.10, 1.56)

**Figure S1:** Participant flow diagram



**Figure S2: C-indexes and calibration plots**



Calibration plots and C-index (95% CI) of models including covariates of model 4 plus grip strength (left) or walking pace (right), by outcome at 5 years and sex.