## SUPPLEMENTAL MATERIAL

**Table S1.** Characteristics of the excluded cohort at baseline visit by physical activity, 2000-2004

	AHA Physical Activity Categories				
Variable	Overall	Poor Health *	Intermediate	Ideal Health ‡	P-value
	(n = 1235)	(n = 687)	Health †	(n = 202)	
			(n = 341)		
Age (years)	$56.51 \pm 14.10$	$59.49 \pm 13.40$	$54.01 \pm 14.24$	$50.63 \pm 13.58$	< 0.001
Sex					0.020
Female	746 (60.40)	414 (60.26)	222 (65.10)	107 (52.97)	
Male	489 (39.60)	273 (39.74)	119 (34.90)	95 (47.03)	
Body Mass Index (kg/m <sup>2</sup> )	$31.97 \pm 7.82$	$31.93 \pm 7.61$	$32.14 \pm 8.02$	$31.85 \pm 8.22$	0.890
Smoking Status					0.453
Never	753 (60.97)	412 (59.97)	209 (61.29)	132 (65.35)	
Current	220 (17.82)	134 (19.51)	56 (16.42)	30 (14.85)	
Former	262 (21.21)	141 (20.52)	76 (22.29)	40 (19.80)	
Hypertension	837 (67.99)	508 (74.27)	218 (64.12)	109 (53.96)	< 0.001
Diabetes Mellitus	347 (29.56)	221 (33.79)	87 (26.85)	38 (19.90)	< 0.001
Chronic Obstructive Pulmonary	119 (13.08)	70 (14.06)	31 (12.35)	18 (11.46)	0.641
Disease					
Coronary Heart Disease	210 (17.00)	139 (20.23)	50 (14.66)	21 (10.40)	0.002
Atrial Fibrillation	11 (0.90)	7 (1.04)	2 (0.59)	2 (1.00)	0.771
Chronic Kidney Disease	142 (12.41)	99 (15.71)	29 (9.12)	13 (6.81)	0.001
Incident Coronary Heart	75 (7.40)	44 (8.15)	23 (7.99)	8 (4.42)	0.233
Disease§					

Data are presented as mean  $\pm$  standard deviation or n (%).

Physical activity is based on the American Heart Association Life's Simple 7. \* Poor health is defined as 0 minutes of moderate and vigorous physical activity. † Intermediate health is defined as 1-149 minutes of moderate physical activity, 1-75 minutes of vigorous activity, or 1-149 minutes of combined moderate and vigorous physical activity. ‡ Ideal health is defined as  $\geq$  150 minutes of moderate physical activity,  $\geq$  75 minutes of vigorous physical activity, or  $\geq$  150 minutes of combined moderate and vigorous physical activity.

<sup>§</sup> Incident coronary heart disease excluding missing values (n = 3,862)

Table S2. Unadjusted and adjusted hazard ratio of incident heart failure hospitalization

Models	Sub-HR (95% CI)	P <sub>trend</sub>
Physical Activity Crude		< 0.001
Poor Health	1.00 (Referent)	
Intermediate Health	0.44 (0.26-0.74)	
Ideal Health	0.23 (0.10-0.54)	
Physical Activity + Age + Sex		0.008
Poor Health	1.00 (Referent)	
Intermediate Health	0.57 (0.34-0.96)	
Ideal Health	0.32 (0.14-0.75)	
Physical Activity + Age + Sex + BMI* + Smoking		0.042
status + Hypertension + $COPD^{\dagger}$ + Atrial		
fibrillation + Diabetes + CKD <sup>‡</sup> + iCHD <sup>§</sup>		
Poor Health	1.00 (Referent)	
Intermediate Health	0.69 (0.41-1.15)	
Ideal Health	0.42 (0.19-0.97)	

across physical activity levels accounting for the competing risk of death.

\*Body mass index

† Chronic obstructive pulmonary disease

‡ Chronic kidney disease

§ Incident coronary heart disease

**Table S3.** Unadjusted and adjusted hazard ratio of incident heart failure hospitalization across physical activity levels with full model adjusting for incident coronary heart disease or excluding participants with incident coronary heart disease.

Models	HR (95% CI)	P <sub>trend</sub>
Model adjusting for iCHD		0.003
Poor Health	1.00 (Referent)	
Intermediate Health	0.82 (0.55-1.23)	
Ideal Health	0.29 (0.12-0.66)	
Model excluding iCHD		0.030
Poor Health	1.00 (Referent)	
Intermediate Health	0.83 (0.52-1.33)	
Ideal Health	0.39 (0.17-0.91)	

iCHD = Incident coronary heart disease

**Table S4.** Unadjusted and adjusted hazard ratio of incident heart failure hospitalization across physical activity levels with full model excluding participants with incident coronary heart disease, COPD, or atrial fibrillation.

Models	HR (95% CI)	P <sub>trend</sub>
Model excluding iCHD		0.030
Poor Health	1.00 (Referent)	
Intermediate Health	0.83 (0.52-1.33)	
Ideal Health	0.39 (0.17-0.91)	
Model excluding COPD		0.014
Poor Health	1.00 (Referent)	
Intermediate Health	0.91 (0.60-1.39)	
Ideal Health	0.35 (0.15-0.80)	
Model excluding atrial fibrillation		0.002
Poor Health	1.00 (Referent)	
Intermediate Health	0.83 (0.56-1.23)	
Ideal Health	0.24 (0.10-0.60)	

iCHD = incident coronary heart disease

COPD = chronic obstructive pulmonary disease