

Supplemental Table e-1. Association of Light Physical Activity and Moderate to Heavy Physical Activity and Baseline Cognitive Performance by Domain

	Processing Speed		Executive Function		Semantic Memory		Episodic Memory	
	Beta* \pm se	P	Beta* \pm se	P	Beta* \pm se	P	Beta* \pm se	P
Total Sample (N=1228)								
Light Physical Activity vs no activity								
Model 1	0.008 \pm 0.043	0.847	-0.004 \pm 0.050	0.941	0.026 \pm 0.041	0.530	-0.009 \pm 0.049	0.856
Model 2	-0.007 \pm 0.045	0.882	-0.007 \pm 0.050	0.891	0.030 \pm 0.041	0.468	-0.017 \pm 0.049	0.730
Model 3	0.013 \pm 0.045	0.766	-0.009 \pm 0.050	0.861	0.027 \pm 0.041	0.510	-0.008 \pm 0.049	0.872
Moderate to Heavy Physical Activity vs no activity								
Model 1	0.153 \pm 0.079	0.043	0.164 \pm 0.083	0.048	0.145 \pm 0.068	0.034	0.142 \pm 0.082	0.083
Model 2	0.112 \pm 0.075	0.137	0.122 \pm 0.083	0.141	0.131 \pm 0.069	0.057	0.112 \pm 0.082	0.175
Model 3	0.135 \pm 0.075	0.073	0.160 \pm 0.083	0.055	0.134 \pm 0.068	0.051	0.132 \pm 0.082	0.107
Unimpaired at Baseline (N=980)								
Light Physical Activity vs no activity								
Model 1	-0.041 \pm 0.044	0.352	0.035 \pm 0.048	0.467	0.018 \pm 0.043	0.682	-0.004 \pm 0.049	0.935
Model 2	-0.061 \pm 0.043	0.159	0.020 \pm 0.047	0.676	0.020 \pm 0.043	0.640	-0.013 \pm 0.049	0.796
Model 3	-0.033 \pm 0.043	0.451	0.034 \pm 0.048	0.475	0.020 \pm 0.433	0.644	-0.001 \pm 0.049	0.986
Moderate to Heavy Physical Activity vs no activity								
Model 1	0.125 \pm 0.067	0.065	0.141 \pm 0.073	0.057	0.106 \pm 0.041	0.112	0.120 \pm 0.076	0.116
Model 2	0.086 \pm 0.067	0.204	0.100 \pm 0.074	0.176	0.091 \pm 0.067	0.173	0.100 \pm 0.077	0.198
Model 3	0.120 \pm 0.067	0.076	0.136 \pm 0.074	0.067	0.098 \pm 0.067	0.142	0.115 \pm 0.077	0.134

Model 1: adjusted for age, sex, education, Medicare status, crystallized abilities, and time from baseline to first cognitive assessment

Model 2: model 1 plus modifiable vascular risk factors (smoking status, moderate alcohol consumption, body mass index, hypertension, diabetes)

Model 3: model 2 including magnetic resonance imaging markers (infarct, white matter disease, atrophy)

* beta represents the average z-score difference in NPE at baseline between those with light physical activity or moderate to heavy physical activity and no physical activity (as a reference)

Supplemental Table e-2. Association of Light Physical Activity and Moderate to Heavy Physical Activity and Change in Cognitive Performance

	Processing Speed		Executive Function		Semantic Memory		Episodic Memory	
	Beta* \pm se	P	Beta* \pm se	P	Beta* \pm se	P	Beta* \pm se	P
Total Sample (N=876)								
Light Physical Activity								
Model 1	0.010 \pm 0.071	0.886	0.034 \pm 0.072	0.641	-0.040 \pm 0.072	0.580	-0.237 \pm 0.071	0.001
Model 2	-0.003 \pm 0.071	0.969	0.025 \pm 0.072	0.733	-0.034 \pm 0.072	0.639	-0.244 \pm 0.071	0.001
Model 3	0.021 \pm 0.072	0.774	0.033 \pm 0.073	0.656	-0.036 \pm 0.072	0.621	-0.240 \pm 0.072	0.001
Moderate to Heavy Physical Activity								
Model 1	0.259 \pm 0.118	0.028	0.057 \pm 0.120	0.633	0.026 \pm 0.119	0.826	0.094 \pm 0.121	0.436
Model 2	0.230 \pm 0.119	0.053	0.009 \pm 0.121	0.943	0.027 \pm 0.120	0.822	0.092 \pm 0.122	0.452
Model 3	0.249 \pm 0.119	0.036	0.047 \pm 0.121	0.696	-0.003 \pm 0.120	0.983	0.090 \pm 0.122	0.461
Unimpaired at Baseline (N=728)								
Light Physical Activity								
Model 1	0.051 \pm 0.078	0.519	0.072 \pm 0.078	0.352	0.029 \pm 0.075	0.700	-0.191 \pm 0.076	0.012
Model 2	0.026 \pm 0.079	0.740	0.051 \pm 0.078	0.513	0.029 \pm 0.075	0.698	-0.191 \pm 0.076	0.012
Model 3	0.057 \pm 0.079	0.467	0.074 \pm 0.078	0.346	0.032 \pm 0.075	0.675	-0.198 \pm 0.076	0.009
Moderate to Heavy Physical Activity								
Model 1	0.270 \pm 0.123	0.029	0.084 \pm 0.122	0.491	0.087 \pm 0.118	0.461	0.130 \pm 0.121	0.286
Model 2	0.240 \pm 0.124	0.054	0.034 \pm 0.123	0.780	0.090 \pm 0.119	0.449	0.142 \pm 0.123	0.247
Model 3	0.255 \pm 0.124	0.040	0.076 \pm 0.123	0.538	0.061 \pm 0.119	0.610	0.133 \pm 0.122	0.275

Model 1: adjusted for sex, Medicare status, crystallized abilities, and time from baseline to first cognitive assessment

Model 2: model 1 plus modifiable vascular risk factors (smoking status, moderate alcohol consumption, body mass index, hypertension, diabetes)

Model 3: model 2 including magnetic resonance imaging markers (infarct, white matter disease, atrophy)

* beta represents the average z-score difference in NPE at baseline between those with a MET score of 0-3 or 3-6 and MET score >6 (as a reference)