

Supplementary Table S4

Test for interaction of continuous PA and ST by APOE $\epsilon 2$ or $\epsilon 4$ allele in relation to mortality: OPACH women enrolled in 2012-2014 and followed through February 28, 2020

Model Exposure	APOE allele	$p_{\text{interaction}}^a$
Light PA	$\epsilon 2$.7721
	$\epsilon 4$.4531
MVPA	$\epsilon 2$.9872
	$\epsilon 4$.2665
Sedentary time	$\epsilon 2$.4752
	$\epsilon 4$.5465

Note. Cox proportional hazards models includes continuous Light PA, MVPA, or ST as the exposure of interest and adjusts for first five principal components to control for population stratification, accelerometer wear time, age, race/ethnicity, education, BMI, smoking status, self-reported health, alcohol consumption, physical functioning, and comorbidities. Comorbidities is defined as the sum of the following chronic conditions present at or before accelerometer wear: cancer, cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease, cognitive impairment, depression, diabetes, frequent falls, and osteoarthritis. Given sparse haplotype counts, $\epsilon 2$ or $\epsilon 4$ were coded as binary (i.e., at least one $\epsilon 2$ or $\epsilon 4$ allele vs. none). $\epsilon 2$ analytic sample is $n=4,317$ ($\epsilon 4$ excluded). $\epsilon 4$ analytic sample is $n=4,793$ ($\epsilon 2$ excluded). APOE = Apolipoprotein E; BMI = body mass index; OPACH = Objective Physical Activity and Cardiovascular Health; MVPA = moderate-to-vigorous physical activity; PA = physical activity; ST = sedentary time.

^a $p_{\text{interaction}}$ corresponds to the Wald test statistic comparing fully adjusted models with and without the continuous PA/ST by $\epsilon 2$ or $\epsilon 3$ interaction terms