

## Supplementary Online Content

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**eTable.** Association of PA With the Rate of Decline in Individual Tests of Cognition, Stratified by Concentration of NfL

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable.** Association of PA with the Rate of Decline in Individual Tests of Cognition, Stratified by Concentration of NfL

<b>Episodic Memory</b>					
	<b>Estimate (95% CI)</b>		<b>Difference (95% CI)</b>		<b>% Difference</b>
<b>Low NfL</b>					
Low PA	-0.02	(-0.047, 0.007)	Ref		Ref
Medium PA	-0.007	(-0.03, 0.016)	0.013	(-0.012, 0.038)	65%
High PA	-0.013	(-0.035, 0.009)	0.007	(-0.018, 0.033)	35%
<b>High NfL</b>					
Low PA	-0.044	(-0.083, -0.005)	Ref		Ref
Medium PA	-0.046	(-0.085, -0.008)	-0.002	(-0.036, 0.031)	5%
High PA	-0.005	(-0.042, 0.032)	0.039	(0.004, 0.074)	89%
<b>Perceptual Speed</b>					
	<b>Estimate (95% CI)</b>		<b>Difference (95% CI)</b>		<b>% Difference</b>
<b>Low NfL</b>					
Low PA	-0.073	(-0.097, -0.049)	Ref		Ref
Medium PA	-0.049	(-0.07, -0.029)	0.024	(0.002, 0.045)	33%
High PA	-0.051	(-0.07, -0.032)	0.022	(0, 0.044)	30%
<b>High NfL</b>					
Low PA	-0.091	(-0.121, -0.06)	Ref		Ref
Medium PA	-0.074	(-0.104, -0.044)	0.017	(-0.009, 0.043)	19%
High PA	-0.064	(-0.093, -0.035)	0.027	(-0.001, 0.054)	30%
<b>MMSE</b>					
	<b>Estimate (95% CI)</b>		<b>Difference (95% CI)</b>		<b>% Difference</b>
<b>Low NfL</b>					
Low PA	-0.055	(-0.078, -0.031)	Ref		Ref
Medium PA	-0.028	(-0.048, -0.007)	0.027	(0.005, 0.048)	49%
High PA	-0.034	(-0.054, -0.015)	0.02	(-0.002, 0.042)	36%
<b>High NfL</b>					
Low PA	-0.108	(-0.151, -0.064)	Ref		Ref
Medium PA	-0.081	(-0.125, -0.038)	0.026	(-0.009, 0.062)	24%
High PA	-0.093	(-0.135, -0.051)	0.015	(-0.023, 0.053)	14%

\*PA: Low activity (responded to at least four items and reported no activity for all responses), Medium activity (< 150 mins/ wk), High activity ( $\geq 150$  mins/ wk)

Serum NfL: Low ( $\leq 25.5$  pg/mL), High ( $> 25.5$  pg/mL)

All models adjusted for age, race, sex, education, chronic conditions, and APOE- $\epsilon 4$  allele.