

Supplementary table 1. Baseline demographics of the Northern Manhattan gait and balance sub-study and magnetic resonance imaging cohort. Data shown from the time of magnetic resonance image.

		Gait and balance sub- study with available gait speed (n = 711)	Magnetic resonance imaging cohort (n = 1290)
Age		67.3 ± 8.1	70.1 ± 9.0
Women		442 (62.2)	780 (60.5)
Race- ethnicity	Hispanic	847 (65.7)	505 (71.0)
	Non- Hispanic black	223 (17.3)	105 (14.8)
	Non- Hispanic white	191 (14.8)	89 (12.5)
Medicaid or no insurance		359 (50.5)	613 (47.5)
Did not complete high school		391 (55.0)	698 (54.1)

Moderate alcohol use*	299 (42.1)	530 (41.0)
Current tobacco user	111 (15.6)	203 (15.7)
Former tobacco user	260 (36.6)	475 (36.8)
Cardiac disease**	80 (11.3)	167 (12.9)
Diabetes	125 (17.6)	249 (19.3)
Hypertension	472 (66.4)	880 (68.2)
Waist circumference (inches)	37.7 (4.7)	37.9 (4.9)
Low-density lipoprotein cholesterol (mg/dl)	116.6 (35.4)	115.6 (35.2)
High-density lipoprotein cholesterol (mg/dl)	52.7 (16.5)	53.3 (17.0)
Mean white matter hyperintensity volume	0.55 ± 0.71	0.67 ± 0.83
Silent brain infarcts	80 (11.8)	193 (15.6)

‡ Mean ± standard deviation or n (% proportion)

\* Defined as current drinking of >1 serving/month and ≤2 servings/day \*\*Defined as coronary heart disease or prior myocardial infarction

Supplementary Table 2. Association of physical inactivity with gait speed in the Northern Manhattan gait and balance sub-study

	Model 1		Model 2		Model 3	
	Parameter estimate*	p-value	Parameter estimate*	p-value	Parameter estimate*	p-value
Physical inactivity	-0.04	<b>0.04</b>	-0.03	<b>0.05</b>	-0.04	<b>0.03</b>
White matter hyperintensity volume <sup>a</sup>			-0.02	0.09	-0.02	0.06
Silent brain infarcts			-0.04	0.11	-0.04	0.15
Arthritis					-0.04	<b>0.008</b>
Grip strength (per standard deviation increase)					0.07	<b>&lt;0.0001</b>

<sup>a</sup>log-white matter hyperintensity volume per standard deviation increase

\*All results displayed as parameter estimate ( $\beta$ ) and p-value.  $\beta$  indicates the mean difference in gait speed.

Model 1 was adjusted for age at MRI, sex, education, insurance status, and modifiable vascular risk factors (smoking, moderate alcohol consumption, cardiac disease, waist circumference, low density lipoprotein cholesterol, high density lipoprotein cholesterol, hypertension, diabetes) and time from MRI to gait assessment.

Model 2 adjusted for variables in Model 1 plus MRI markers (subclinical brain infarct, white matter hyperintensity volume)

Model 3 included additional adjustment for grip strength and diagnosis of arthritis.

Boldface indicates statistical significance ( $p < 0.05$ )