Supplemental Data for:

Ambient Fine Particulate Matter Alters Cerebral Hemodynamics in the Elderly

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Table S1: Association of blood flow velocity and cerebrovascular resistance with $PM_{2.5}$ levels averaged over the 28 days prior to evaluation, overall and stratified by participant characteristics.

Participant Subgroup	% Difference in Flow Velocity* (95% CI)	P_h	% Difference in Resistance* (95% CI)	P_h
Overall	-7.5 (-10.6, -4.2)†		8.6 (3.7, 13.8)†	
Sex				
Female	-6.2 (-9.7, -2.6)	0.078	7.0 (1.6, 12.6)	0.14
Male	-9.4 (-13.1, -5.6)		11.3 (5.1, 17.8)	
Hypertension Status				
Normotension	-5.4 (-9.6, -1.0)	0.13	5.6 (-0.8, 12.4)	0.40
Controlled Hypertension	-7.6 (-11.2, -3.8)		10.3 (4.5, 16.4)	
Uncontrolled Hypertension	-10.7 (-15.1, -6.0)		9.4 (2.1, 17.3)	
Diabetes				
No	-7.6 (-10.8, -4.2)	0.86	8.4 (3.3, 13.8)	0.75
Yes	-7.1 (-12.0, -1.9)		9.6 (1.8, 18.1)	
Obesity				
BMI<30	-7.5 (-10.8, -4.0)	0.99	9.5 (4.2, 15.1)	0.34
BMI≥30	-7.5 (-11.7, -3.0)		6.3 (-0.4, 13.4)	
Season				
Cool	-10.6 (-14.7, -6.2)	0.084	8.2 (1.3, 15.5)	0.81
Warn	-5.1 (-9.6, -0.4)		9.4 (2.4, 16.9)	

*Estimates represent the percent difference in each outcome per interquartile range increase in $PM_{2.5}$ levels. †:$p<0.05$. BMI: body mass index. IQR: interquartile range. P_h: P-value from test for homogeneity.

Table S2: Association between cerebral vasoreactivity and $PM_{2.5}$ levels averaged 1 to 28 days prior to assessment.

$PM_{2.5}$ Averaging Period (Days)	IQR ($\mu g/m^3$)	Difference in Cerebral Vasoreactivity* (95% CI)
1	4.8	3.0 (-0.8, 6.9)
3	4.4	0.9 (-3.7, 5.5)
5	3.9	0.0 (-4.7, 4.7)
7	3.8	-0.3 (-5.5, 4.8)
14	3.4	-0.6 (-6.1, 4.8)
21	3.2	-2.8 (-8.7, 3.1)
28	3.0	-1.5 (-7.7, 4.7)

*Change in cerebral vasoreactivity is expressed in units of (100 cm/s)/mmHg per interquartile range increase in $PM_{2.5}$. IQR: interquartile range.