

Table S1: Association of age acceleration with physical capability at age 53 for NSHD participants

Variable	Model ¹	Blood (n=152)			Buccal (n=790)		
		Regression Coefficient (difference per year AA)	95% confidence interval	p-value	Regression Coefficient (difference per year AA)	95% confidence interval	p-value
Grip strength (kg)	Unadjusted	0.05	-0.25,0.36	0.73	-0.015	-0.12,0.09	0.78
	Adjusted for age, height, BMI	0.07	-0.21,0.36	0.61	-0.004	-0.10,0.10	0.94
	Adjusted for height, BMI, smoking, education and SEP	0.19	-0.14,0.51	0.26	0.010	-0.09,0.11	0.85
Chair rise speed (stands/minute)	Unadjusted	-0.29	-0.65,0.07	0.11	0.0001	-0.12,0.12	0.99
	Adjusted for age, height, BMI	-0.25	-0.60,0.09	0.15	0.025	-0.09,0.14	0.68
	Adjusted for height, BMI, smoking, education and SEP	-0.19	-0.57,0.18	0.31	0.002	-0.12,0.12	0.97
Balance time, eyes closed (log seconds)	Unadjusted	0.003	-0.02,0.03	0.81	0.003	-0.01,0.01	0.49
	Adjusted for age, height, BMI	0.005	-0.02,0.03	0.69	0.005	-0.003,0.013	0.20
	Adjusted for height, BMI, smoking, education and SEP	0.004	-0.02,0.03	0.71	0.004	-0.003,0.012	0.27
Composite score	Unadjusted	0.002	-0.01,0.01	0.77	0.001	-0.003,0.006	0.60
	Adjusted for age, height, BMI	0.003	-0.01,0.02	0.63	0.003	-0.002,0.007	0.22
	Adjusted for height, BMI, smoking, education and SEP	0.01	-0.01,0.02	0.39	0.002	-0.003,0.007	0.38

¹ For each of the four physical capability outcome measures, we ran three models, first unadjusted, then adjusted for height and BMI, then adjusted for height, BMI, smoking, education and both adult and childhood SEP

Table S2: Association of age acceleration at 53 with physical capability at age 60-64 for NSHD participants

Variable	Model ²	Blood (n=152)	95% confidence interval	p-value	Buccal (n=790)	95% confidence interval	p-value
		Regression Coefficient (difference per year AA)			Regression Coefficient (difference per year AA)		
Grip strength (kg)	Unadjusted	-0.18	-0.51,0.15	0.28	-0.08	-0.19,0.04	0.18
	Adjusted for age, height, BMI	-0.18	-0.50,0.14	0.26	-0.06	-0.17,0.05	0.27
	Adjusted for height, BMI, smoking, education and SEP	-0.18	-0.54,0.17	0.30	-0.09	-0.21,0.02	0.12
Chair rise speed (stands/minute)	Unadjusted	-0.07	-0.40,0.26	0.67	-0.02	-0.13,0.09	0.75
	Adjusted for age, height, BMI	-0.07	-0.39,0.25	0.66	-0.01	-0.12,0.09	0.82
	Adjusted for height, BMI, smoking, education and SEP	-0.12	-0.45,0.22	0.49	-0.04	-0.15,0.07	0.45
Balance time, eyes closed (log seconds)	Unadjusted	-0.009	-0.03,0.01	0.42	-0.0002	-0.01,0.01	0.97
	Adjusted for age, height, BMI	-0.009	-0.03,0.01	0.41	0.001	-0.01,0.01	0.85
	Adjusted for height, BMI, smoking, education and SEP	-0.007	-0.03,0.02	0.53	-0.0005	-0.01,0.01	0.90
Composite score	Unadjusted	0.001	-0.004,0.007	0.67	0.001	-0.003,0.006	0.60
	Adjusted for age, height, BMI	0.002	-0.003,0.007	0.54	0.003	-0.002,0.007	0.22
	Adjusted for height, BMI, smoking, education and SEP	0.003	-0.002,0.009	0.25	0.002	-0.003,0.007	0.38

² For each of the four physical capability outcome measures, we ran three models, first unadjusted, then adjusted for height and BMI, then adjusted for height, BMI, smoking, education and both adult and childhood SEP

Table S3: Association of age acceleration with changes in physical capability from age 53 to 64 in NSHD participants, including those unable to perform tests

Variable	Model ³	Blood (n=152)			Buccal (n=790)		
		Regression Coefficient (difference per year AA)	95% confidence interval	p-value	Regression Coefficient (difference per year AA)	95% confidence interval	p-value
Grip strength (kg)	Unadjusted	-0.30	-0.69,0.10	0.14	0.02	-0.14,0.17	0.83
	Adjusted for age, height, BMI	-0.28	-0.67,0.11	0.16	0.02	-0.13,0.17	0.80
	Adjusted for height, BMI, smoking, education and SEP	-0.29	-0.73,0.15	0.19	-0.04	-0.20,0.13	0.67
Chair rise speed (stands/minute)	Unadjusted	0.21	-0.23,0.64	0.35	-0.01	-0.16,0.14	0.87
	Adjusted for age, height, BMI	0.20	-0.23,0.63	0.36	-0.03	-0.18,0.12	0.74
	Adjusted for height, BMI, smoking, education and SEP	0.07	-0.40,0.54	0.77	-0.04	-0.20,0.12	0.62
Balance time, eyes closed (log seconds)	Unadjusted	-0.02	-0.05,0.01	0.21	-0.002	-0.01,0.01	0.77
	Adjusted for age, height, BMI	-0.02	-0.05,0.01	0.21	-0.003	-0.01,0.01	0.65
	Adjusted for height, BMI, smoking, education and SEP	-0.01	-0.05,0.02	0.44	-0.004	-0.02,0.01	0.48

³ For each of the four physical capability outcome measures, we ran three models, first unadjusted, then adjusted for height and BMI, then adjusted for height, BMI, smoking, education and both adult and childhood SEP