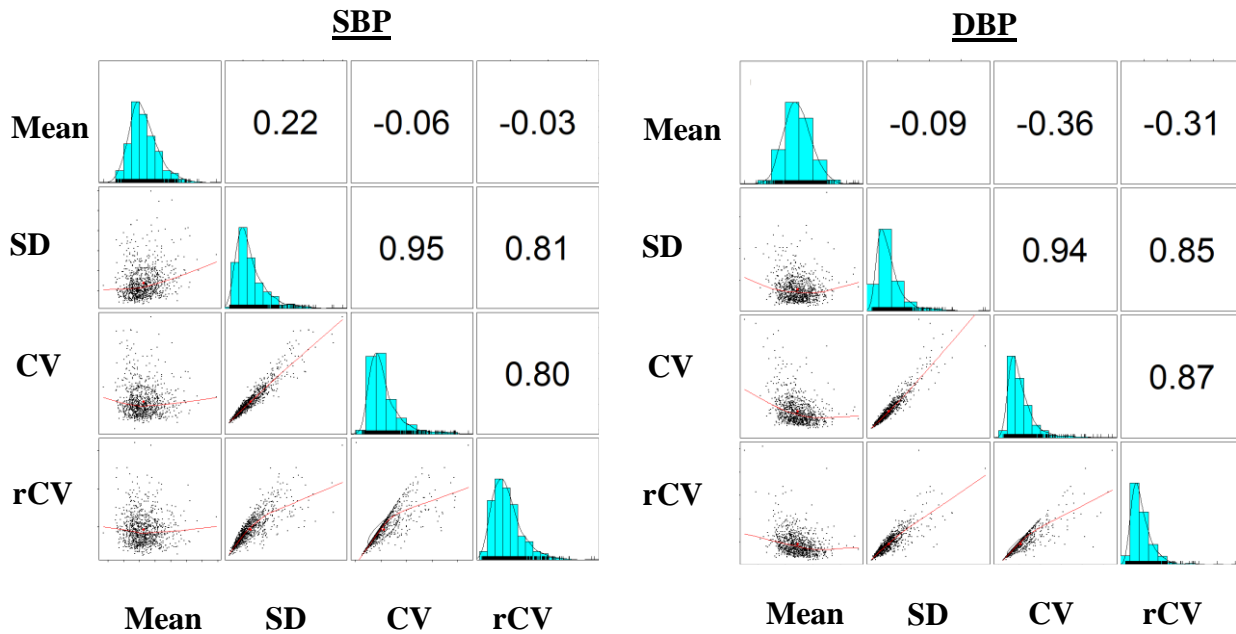**SUPPLEMENTAL MATERIAL**

BMI and arterial stiffness are associated with greater beat-to-beat blood pressure variability after TIA or minor stroke

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Supplementary Figure I. Associations between indices of mean BP and BP variability. Scatter plots with loess-smoothed regression lines, histograms with density curves and r values for the linear associations are presented for mean, standard deviation (SD), coefficient of variation (CV) and residual CV after de-trending of data (rCV), for both systolic (SBP) and diastolic (DBP) blood pressure.

Supplementary Table I. Linear models for baseline demographic measures and diastolic blood pressure (SBP) level and variability. DBP variability is analysed as the residual coefficient of variation (rCV), unadjusted or adjusted (adj) for age and sex, or for age, sex and cardiovascular risk factors (CV-RFs). Independent variables include hypertension (HTN) reported by patients at baseline, or defined by patient report and current treatment at baseline. Current treatment and pulse wave velocity measures are given at the time of the physiological assessment. p-val – p value; LDL – low density lipoprotein; HDL – high density lipoprotein; TSH – thyroid stimulating hormone; BMI – body mass index.

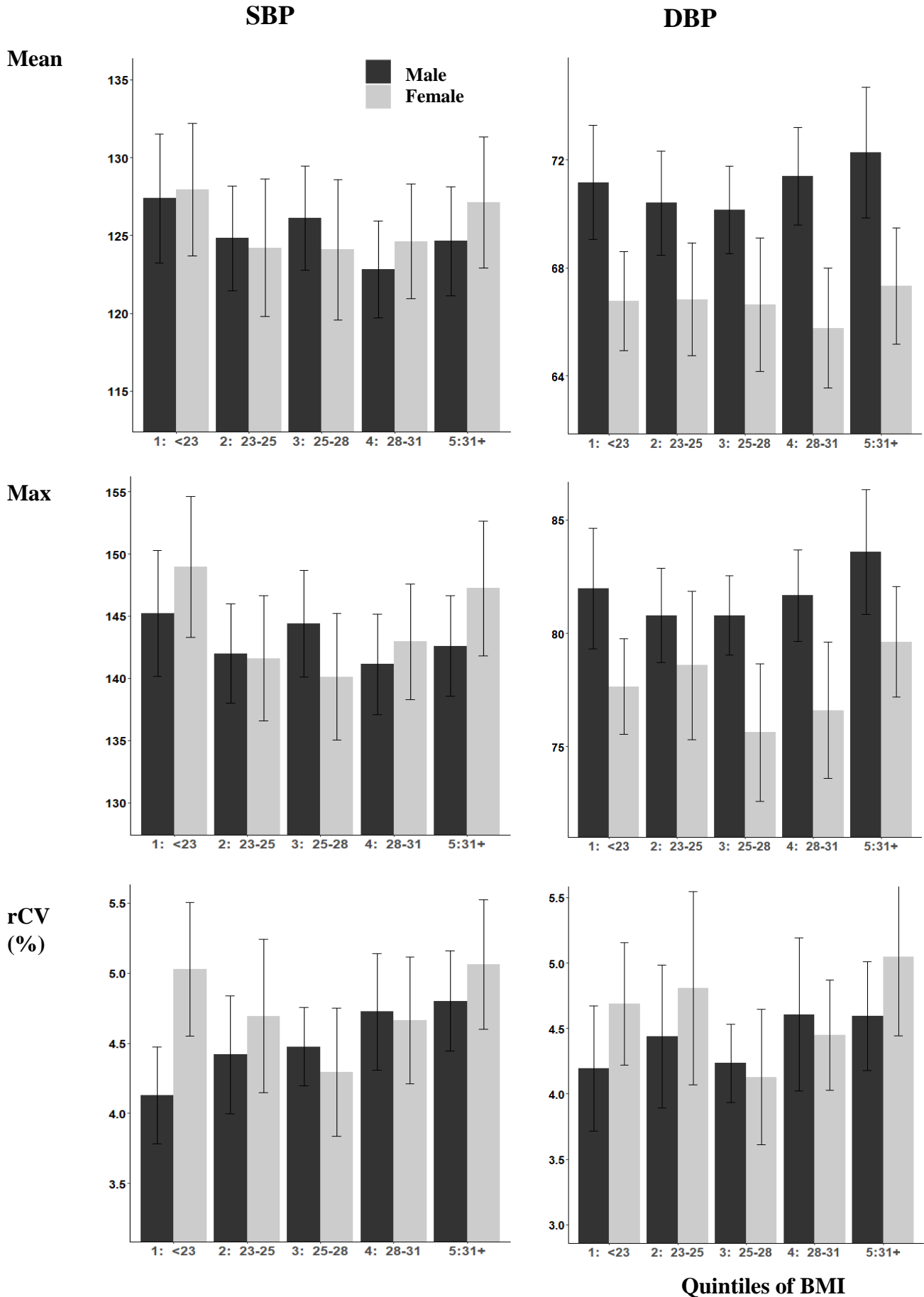| | Mean DBP | | | | | | DBP rCV | | | | | |
| | Unadjusted | | Adj. Age+Sex | | Adj CV-RFs | | Unadjusted | | Adj. Age+Sex | | Adj CV-RFs | |
	β	p-val	β	p-val	β	p-val	β	p-val	β	p-val	β	p-val
Age	-0.11	<0.001	-0.1	<0.001	-0.11	<0.001	0.01	0.156	0.01	0.186	0.02	0.03
Female	-4.38	<0.001	-4.2	<0.001	-4.29	<0.001	0.26	0.121	0.24	0.144	0.21	0.224
HTN Reported	0.96	0.144	1.93	0.004	2.42	0.002	0.06	0.697	0	0.997	0.17	0.412
HTN Treated	-0.4	0.599	0.67	0.394	1.19	0.145	-0.16	0.409	-0.26	0.19	-0.19	0.367
Diabetes	-1.2	0.242	-1.57	0.114	-1.59	0.116	-0.05	0.839	-0.03	0.894	0.05	0.86
Dyslipidaemia												
- Reported	-0.75	0.292	-0.67	0.34	-0.39	0.605	-0.19	0.288	-0.22	0.228	-0.13	0.496
- Treated	-1.32	0.116	-0.93	0.263	-1.05	0.229	-0.34	0.101	-0.4	0.062	-0.4	0.077
Smoking												
- Ever	0.91	0.17	0.01	0.99	-0.14	0.843	-0.08	0.637	-0.03	0.882	-0.08	0.66
- Current	1.83	0.038	0.27	0.759	0.43	0.662	0.1	0.666	0.23	0.323	0.3	0.234
Height	15.68	0.258	8.84	0.516	8.74	0.522	-10.81	0.002	-10.17	0.004	-10.07	0.004
Weight	0.02	0.112	0	0.681	0	0.826	0	0.591	0	0.263	0	0.192
BMI	0.09	0.179	0.05	0.396	0.08	0.246	0.03	0.116	0.03	0.066	0.04	0.018
SBP at 1 month	0.16	<0.001	0.17	<0.001	0.17	<0.001	0	0.707	0	0.706	0	0.552
DBP at 1 month	0.39	<0.001	0.38	<0.001	0.38	<0.001	-0.02	0.013	-0.02	0.012	-0.02	0.028
Creatinine	0	0.894	-0.03	0.056	-0.03	0.059	0	0.721	0	0.37	0.01	0.294
Cholesterol	0.2	0.345	0.35	0.088	0.31	0.141	-0.01	0.92	-0.01	0.799	-0.01	0.843
LDL	-0.01	0.501	0	0.679	0	0.658	0	0.545	0	0.484	0	0.562
HDL	-0.58	0.375	1.17	0.076	1.22	0.069	-0.04	0.825	-0.18	0.298	-0.21	0.233
TSH	0.22	0.236	0.24	0.17	0.26	0.148	-0.04	0.362	-0.04	0.341	-0.04	0.37
On antihypertensive	-1.08	0.15	0.05	0.953	-4.97	0.039	-0.09	0.629	-0.2	0.32	0.5	0.424
On statin	-1.47	0.067	-1.04	0.186	-1.4	0.475	-0.4	0.045	-0.46	0.025	-0.78	0.122
Pulse Wave Velocity	0.15	0.32	0.57	0.001	0.66	<0.001	0.13	<0.001	0.14	0.002	0.16	<0.002

Supplementary Table II. Difference in SBP and SBP variability values according to dichotomised groups, unadjusted and adjusted for age, sex and cardiovascular risk factors. Mean values are presented by demographic group, including for hypertension (HTN) reported by patients at baseline, or defined by patient report and current treatment at baseline. Differences in mean level according to treatment at the time of the physiological assessment are given. ACE – angiotensin converting enzyme; ARB – angiotensin receptor blocker; CCB – calcium channel blocker.

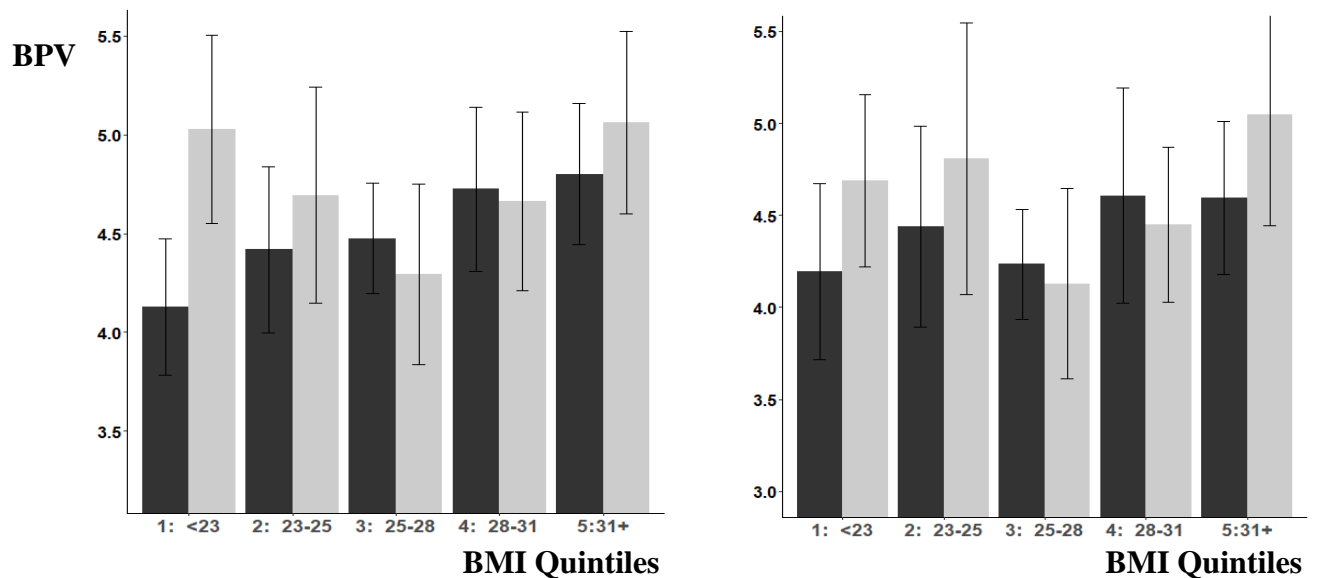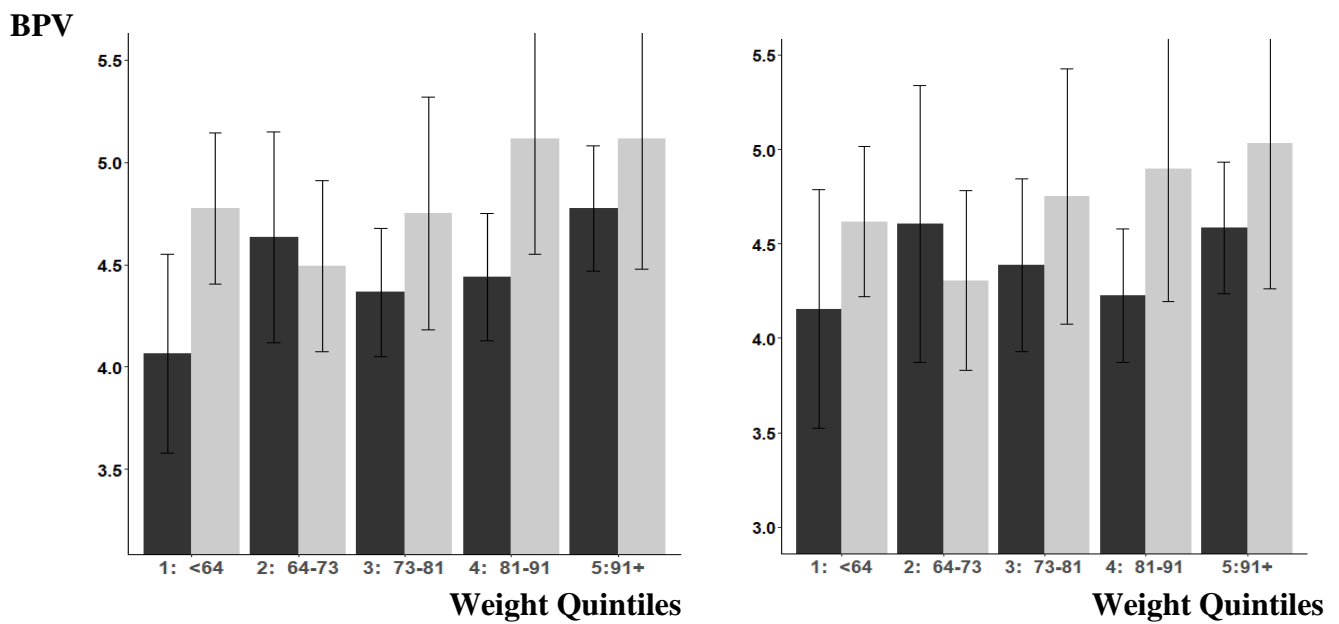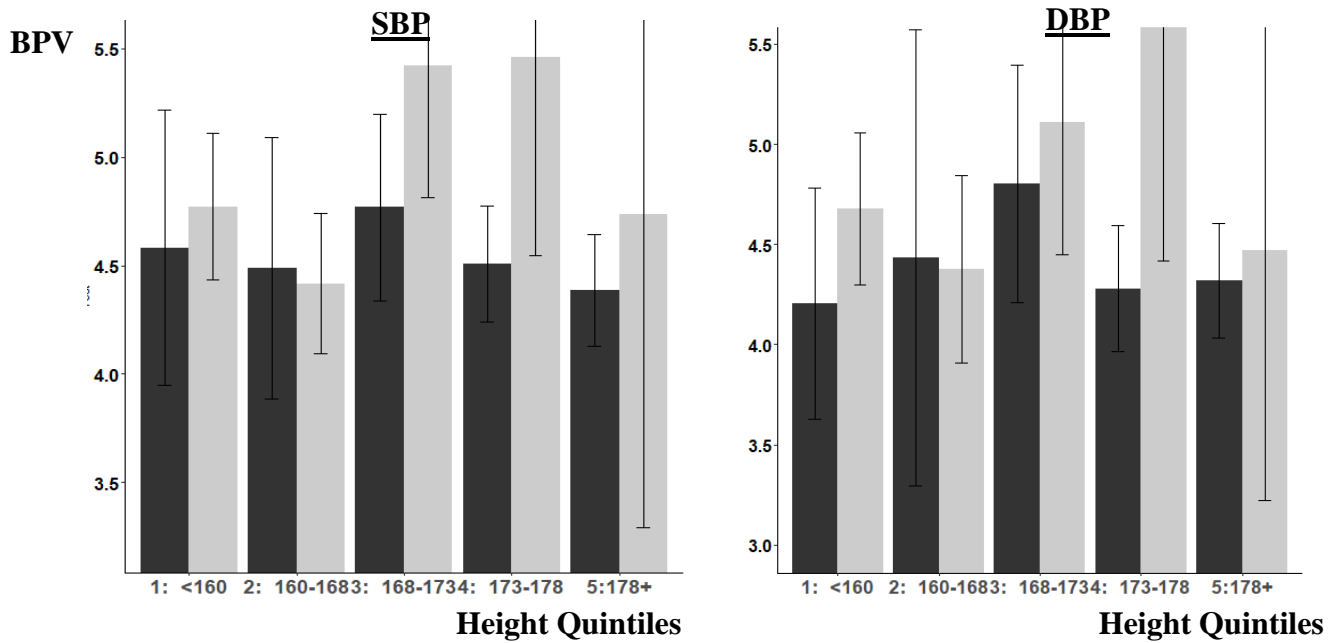|	Mean SBP (mmHg)		Unadjusted SBP Max (mmHg)		SBP rCV (%)		Mean SBP (mmHg)		Adjusted SBP Max (mmHg)		SBP rCV (%)	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Sex	125.3	125.8	6.3	7.6	4.5	4.8	127.5	127.4	7.2	8.4	4.9	5.2
Diabetes	125.3	127	6.8	7.7	4.6	4.9	127.6	127.3	7.3	8.2	4.8	5.2
Ever Smoked	125.6	125.5	7.1	6.7	4.6	4.6	128.1	126.8	8	7.6	5	5
Current Smoker	125.6	125.1	6.9	6.8	4.6	4.8	125.6	129.3	7.3	8.2	4.8	5.2
HTN reported	121.7	129.6	6.5	7.3	4.6	4.6	124.5	130.3	7.6	7.9	5.1	5
HTN Treated	121.7	126.8	6.5	7	4.7	4.6	125.9	128.1	7.9	7.7	5.2	5
Dyslipid Treated	124.3	125.8	6.9	6.9	4.7	4.6	128.4	126.5	8.1	7.5	5.2	4.9
On antihypertensive	122.4	126.6	6.6	7	4.6	4.6	126.5	127.9	7.9	7.6	5.1	4.9
On statin	124.6	125.8	7.1	6.8	4.8	4.6	127.3	126.9	8.4	6.9	5.3	4.7
On alpha blocker	125.2	129	6.9	6.9	4.6	4.3	127.3	128.4	7.7	7.5	5	4.6
On ACE inhibitor	125.4	125.6	7.0	6.7	4.6	4.6	127.6	127.1	7.9	7.4	5	5
On ARB	124.8	130.8	6.8	7.5	4.6	4.5	126.8	130.9	7.7	7.7	5.1	4.8
On CCB	123.5	128	6.6	7.3	4.6	4.6	126.4	128.7	7.6	7.8	5.1	4.9
On diuretic	125.4	125.7	6.9	6.8	4.6	4.6	127.5	127.3	7.8	7.5	5	5
On beta-blocker	125.4	126.7	6.8	7.2	4.6	4.7	127.5	127.1	7.7	7.6	5	5

Supplementary Table III. Difference in SBP and SBP variability values according to dichotomised groups, unadjusted and adjusted for age, sex and cardiovascular risk factors. Mean values are presented by demographic group, including for hypertension (HTN) reported by patients at baseline, or defined by patient report and current treatment at baseline. Differences in mean level according to treatment at the time of the physiological assessment are given. ACE – angiotensin converting enzyme; ARB – angiotensin receptor blocker; CCB – calcium channel blocker.

| | Unadjusted | | | | | | Adjusted | | | | | |
| | Mean DBP | | DBP Max | | DBP rCV | | Mean DBP | | DBP Max | | DBP rCV | |
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Sex	70.9	66.6	4.9	5.8	4.4	4.7	70.6	66.3	5.4	6.2	4.7	4.9
Diabetes	69.1	67.9	5.3	5.7	4.6	4.5	69.5	67.4	5.6	6.1	4.8	4.8
Ever Smoked	68.5	69.4	5.5	5.2	4.6	4.5	68.6	68.3	6	5.7	4.9	4.8
Current Smoker	68.6	70.5	5.3	5.2	4.5	4.6	68.2	68.7	5.6	6	4.7	5
HTN reported	68.5	69.4	5.2	5.5	4.5	4.6	67.3	69.6	5.8	5.9	4.8	4.8
HTN Treated	69.3	68.9	5.3	5.3	4.7	4.5	67.7	68.8	5.9	5.7	4.9	4.7
Dyslipid Treated	70	68.7	5.5	5.3	4.8	4.5	69	67.9	6	5.7	5	4.6
On antihypertensive	69.8	68.7	5.3	5.3	4.6	4.5	68.2	68.7	5.9	5.7	4.9	4.7
On statin	70.1	68.7	5.5	5.3	4.9	4.5	68.9	67.8	6.3	5.2	5.1	4.4
On alpha blocker	69.1	68	5.3	5.2	4.6	4.2	68.7	67.1	5.8	5.7	4.8	4.4
On ACE inhibitor	69	68.9	5.4	5.2	4.5	4.6	68.5	68.6	5.9	5.6	4.7	4.8
On ARB	69	68.6	5.3	5.4	4.6	4.4	68.3	69.5	5.8	5.5	4.8	4.6
On CCB	69.6	68.1	5.1	5.5	4.5	4.6	68.7	68.3	5.6	5.9	4.7	4.9
On diuretic	68.9	69.2	5.4	5.2	4.6	4.5	68.3	68.9	5.8	5.6	4.8	4.8
On beta-blocker	69.4	66	5.3	5.8	4.5	4.8	68.9	66.5	5.7	6	4.7	5

Supplementary Figure II. Mean values of mean, maximum and rCV for systolic (SBP) and diastolic (DBP) blood pressure, stratified by sex and quintiles of BMI. Results are presented as the mean and confidence interval for each group. rCV is calculated as the coefficient of variation of de-trended recordings. Y-axes are scaled to the inter-quartile range of the whole population for each index.

Supplementary Figure III. Mean values of rCV for systolic (SBP) and diastolic (DBP) blood pressure, stratified by sex and quintiles of height, weight and BMI. Results are presented as the mean and confidence interval for each group. rCV is calculated as the coefficient of variation of de-trended recordings.

Supplementary Figure IV. Distributions of systolic rCV stratified by BMI category and Sex.