

Supplementary Table 1: Bivariate correlation between measures of arterial structure and function

	PWV	AIx@75	CCA IMT	CCA Diameter	CCA W/L ratio	ESP	CCA circ. stress	CCA Strain	Office PP
PWV	---	0.391 &	0.421 &	0.276 &	0.279 &	0.483 &	0.424 &	-0.148 &	0.300 &
AIx@75		---	0.393 &	0.101 §	0.376 &	0.507 &	0.439 &	-0.154 &	0.221 &
CCA IMT			---	0.418 &	0.795 &	0.450 &	0.816 &	-0.135 &	0.397 &
CCA Diameter				---	-0.186 &	0.402 &	0.055 *	-0.330 &	0.365 &
CCA W/L ratio					---	0.215 &	0.863 &	0.067 **	0.179 &
ESP						---	0.621 &	-0.154 &	0.610 &
CCA circ .stress							---	-0.026	0.367 &
CCA strain								---	-0.027

*p< 0.05 **p< 0.01 § p>0.001 & p<0.0001

Supplementary Table 2B: Office, central, and ABPM blood pressures and medication use in subjects not assuming antihypertensive therapy according to their office and 24hABPM BP profile (defined by 24h BP values 130/80 mmHg).

	True NT (n= 1721) (group 0)	WCHT (n= 187) (group 1)	MH (n= 147) (group 2)	True HT (n=907) (group 3)	ANOV A P value	Post-hoc Bonferroni (p<0.05)	ANC OVA P value *
Office SBP (mmHg)	116.2 ± 11.0	146.0 ± 11.	129.7 ± 8.8	136.3 ± 18.2	.0001	1 > 3 > 2 > 0	.0001
Office DBP (mmHg)	73.0 ± 7.2	87.7 ± 7.2	76.0 ± 6.8	84.2 ± 10.1	.0001	1 > 3 > 2 > 0	.0001
Office MBP (mmHg)	87.2 ± 7.7	106.9 ± 6.0	93.7 ± 6.3	101.4 ± 11.6	.0001	1 > 3 > 2 > 0	.0001
Office PP (mmHg)	43.2 ± 8.3	58.3 ± 13.4	53.7 ± 8.7	52.1 ± 14.0	.0001	1 > 2,3 > 0	.0001
HR (bpm)	68.5 ± 10.8	68.4 ± 11.2	68.0 ± 8.6	69.9 ± 11.3	.01		
24h SBP (mmHg)	113.6 ± 7.1	120.3 ± 6.3	133.9 ± 4.6	132.0 ± 9.9	.0001	2,3 > 1 > 0	.0001
24h DBP (mmHg)	71.0 ± 5.1	72.9 ± 4.9	75.3 ± 4.6	84.3 ± 5.9	.0001	2,3 > 1 > 0	.0001
Central SBP (mmHg)	113.1 ± 12.20	132.3 ± 12.4	117.0 ± 10.8	124.2 ± 18.7	.0001	1 > 3 > 2 > 0	.0001
Central ESP (mmHg)	94.7 ± 11.0	119.8 ± 10.2	105.7 ± 9.9	113.7 ± 16.1	.0001	1 > 3 > 2 > 0	.0001
Antidiabetic drugs (%)	2.1	5.4	9.5	3.0	.0001	1,2 > 0	0.19
Antiplatelet (%)	2.7	7.9	11.1	5.4	.0001		0.13
Statin (%)	2.7	6.1	6.4	4.7	.0001		0.44
Nitrates (%)	0.6	0.7	3.2	0.8	0.29		0.11
*after controlling for age, sex, BMI, smoking, and diabetes mellitus							

Supplementary Table 2C: Arterial properties in subjects not assuming antihypertensive therapy according to their office and 24hABPM BP profile (defined by 24h BP values 130/80 mmHg).

	True NT (n= 1877) (group 0)	WCHT (n= 279) (group 1)	MH (n= 63) (group 2)	True HT (n=743) (group 3)	ANOVA P value	Post-hoc Bonferroni (p<0.05)	ANCOVA P value *
PWV (m/sec)	6.4 ± 1.7	8.2 ± 2.1	8.6 ± 3.9	7.9 ± 2.8	.0001	0 < all	.0001
PWV/MBP	7.4 ± 1.9	7.7 ± 2.0	8.5 ± 2.8	7.8 ± 2.4	.0001	2,3 > 0	.02
AI @75 (%)	18.6 ± 14.4	28.1 ± 11.9	26.1 ± 13.6	25.5 ± 11.9	.0001	0 < all	.0001
CCA IMT (mm)	0.53 ± 0.11	0.63 ± 0.15	0.67 ± 0.16	0.59 ± 0.14	.0001	1,2 > 3 > 0	.0001
CCA diameter (mm)	5.2 ± 0.6	5.8 ± 0.7	5.7 ± 0.8	5.7 ± 0.8	.0001	0 < all	.0001
CCA W/L ratio	20.6 ± 3.8	21.7 ± 5.1	23.6 ± 5.9	21.3 ± 4.6	.0001	0 < all	0.48
CCA CSA	19.7 ± 5.7	25.8 ± 8.2	26.7 ± 10.4	24.4 ± 8.1	.0001	0 < all	.0001
CCA circumferential stress	17.9 ± 3.9	23.3 ± 5.8	21.8 ± 5.4	21.7 ± 5.4	.0001	1 > 2,3 > 0	.0001
CCA strain (%)	8.7 ± 3.1	8.2 ± 3.5	8.4 ± 3.3	7.7 ± 3.2	.0001	3 < 0	.05
CCA stiffness	6.2 ± 3.4	7.8 ± 5.0	7.4 ± 3.5	7.6 ± 4.8	.0001	1,3 > 0	0.10
*after controlling for age, sex, BMI, smoking, and diabetes mellitus							

Supplementary Table 3A: Demographic and arterial profiles of subjects – including those assuming antihypertensive medications - according to their office and 24hABPM BP profile.

	True NT (n= 1857)	WCHT (n= 257)	MH (n= 175)	True HT (n= 1121)	ANOVA P value	ANCOVA P value *
Age (years)	46.5 ± 14.8	60.9 ± 12.2	58.1 ± 18.0	56.1 ± 14.4	0.0001	
Women (%)						
Diabetes mellitus (%)	4.4	14.0	18.3	13.0	0.0001	
Office SBP (mmHg)	116.2±11.0	146.1±11.3	126.4±9.7	138.7±18.5	0.0001	0.0001
Office DBP (mmHg)	73.0 ± 7.2	88.1 ± 8.2	74.8 ± 6.3	84.3 ± 9.8	0.0001	0.0001
Office MBP (mmHg)	87.2 ± 7.7	107.2 ± 6.6	91.8 ± 6.4	102.3±11.3	0.0001	0.0001
Office PP (mmHg)	43.3 ± 8.4	58.0 ± 14.0	51.6 ± 8.9	54.4 ± 15.0	0.0001	0.0001
HR (bpm)	68.3 ± 11.0	68.9 ± 11.2	66.4 ± 9.8	69.3 ± 11.3	0.01	0.0001
24h SBP (mmHg)	112.7±6.4	117.3±5.3	129.6±4.0	131.4±9.9	0.0001	0.0001
24h DBP (mmHg)	70.3 ± 5.0	71.3 ± 5.3	74.2 ± 4.1	82.2 ± 6.8	0.0001	0.0001
Central SBP (mmHg)	103.5±12.1	132.4±12.4	113.8±11.6	126.4±18.6	0.0001	0.0001
Central ESP (mmHg)	94.8 ± 11.1	119.8±10.3	102.9±10.7	115.2±15.7	0.0001	0.0001
PWV (m/sec)	6.5 ± 1.8	8.2 ± 2.1	8.2 ± 3.2	8.3 ± 3.0	0.0001	0.0001
PWV/MBP	7.5 ± 1.9	7.6 ± 2.0	8.7 ± 2.9	8.1 ± 2.6	0.001	0.0001
AI @75 (%)	19.3 ± 14.2	28.8 ± 11.4	22.5 ± 16.2	26.1 ± 11.8	0.0001	0.0001
CCA IMT (mm)	0.54 ± 0.11	0.63 ± 0.14	0.64 ± 0.16	0.61 ± 0.14	0.0001	0.0001
CCA diameter (mm)	5.2 ± 0.6	5.8 ± 0.7	5.7 ± 0.9	5.7 ± 0.8	0.0001	0.0001
CCA W/L ratio	20.7 ± 3.8	21.6 ± 5.2	23.2 ± 5.5	21.7 ± 5.8	0.07	0.24
CCA CSA	19.8 ± 5.7	25.3 ± 7.2	26.6 ± 10.0	25.4 ± 8.8	0.0001	0.0001
CCA circumferential stress	18.0 ± 4.1	23.3 ± 5.7	21.3 ± 5.4	22.2 ± 5.8	0.0001	0.0001
CCA strain (%)	8.7 ± 3.2	8.2 ± 3.3	8.9 ± 3.4	7.8 ± 3.2	0.55	0.01
CCA stiffness	6.3 ± 3.8	7.6 ± 4.6	6.9 ± 3.6	7.8 ± 4.8	0.0001	0.06

*after controlling for age, sex, BMI, smoking, and diabetes mellitus

Supplementary Table 3B: Metabolic and medication use of subjects – including those assuming antihypertensive medications - according to their office and 24hABPM BP profile.

	True NT (n= 1857)	WCHT (n= 257)	MH (n= 175)	True HT (n= 1121)	ANOVA P value	ANCOVA P value *
Age (years)	46.5 ± 14.8	60.9 ± 12.2	58.1 ± 18.0	56.1 ± 14.4	0.0001	
Diabetes mellitus (%)	4.4	14.0	18.3	13.0	0.0001	
BMI (Kg/m ²)	24.8 ± 4.3	29.3 ± 4.9	27.0 ± 4.5	27.4 ± 4.6	0.0001	
Waist circumference (cm)	83.8 ± 11.5	94.5 ± 12.1	90.3 ± 11.2	91.4 ± 12.2	0.0001	0.88
Fasting glucose (mg/dl)	94.2 ± 19.5	104.1±24.4	107.0±34.6	104.9±28.4	0.0001	0.05
Total cholesterol(mg/dl)	214.2±39.3	226.2±38.9	213.9±43.6	222.6±38.9	0.0001	0.0001
LDL cholesterol (mg/dl)	135.3±34.1	144.2±32.9	134.3±36.8	142.0±33.7	0.0001	0.01
HDL cholesterol(mg/dl)	58.4 ± 14.6	56.9 ± 15.2	56.4 ± 16.8	55.2 ± 13.6	0.0001	0.10
Triglycerides (mg/dl)	103.0±56.5	124.6±59.4	117.3±66.1	128.6±83.6	0.0001	0.0001
Serum creatinine (mg/ml)	0.85 ± 0.17	0.90 ± 0.18	0.88 ± 0.17	0.90 ± 0.18	0.0001	0.17
Uric acid (mg/ml)	4.2 ± 1.3	5.2 ± 1.5	4.9 ± 1.3	5.0 ± 1.5	0.0001	0.07
Antihypertensive medication(%)	7.6	27.2	16.0	19.2	0.0001	0.05
Antidiabetic medications (%)	2.4	6.2	9.7	4.8	0.0001	0.05
Antiplatelet (%)	5.3	16.3	14.3	9.6	0.0001	0.07
Statin (%)	4.2	11.7	11.4	7.9	0.0001	0.45
Nitrates (%)	1.6	1.6	3.4	2.2	0.24	0.05
Diuretics (%)	3.8	12.1	8.6	6.7	0.0001	0.13
Beta-blockers (%)	3.2	8.2	2.9	4.3	0.01	0.05
Calcium channel- blockers (%)	1.1	6.2	5.7	4.4	0.0001	0.09
CEI inhibitors (%)	2.1	7.8	4.6	5.3	0.0001	0.48
AT1 blockers (%)	3.5	11.3	6.9	7.9	0.0001	0.69
Alpha blockers (%)	0.2	0.4	1.1	1.2	0.01	0.17

*after controlling for age, sex, BMI, smoking and diabetes mellitus

Supplementary Table 4A: Demographic and metabolic profile of subjects not assuming antihypertensive medications according to their office and 24hABPM BP profile in men and women

	MEN				WOMEN				ANCOVA analysis (p <)		
	True NT (n=518)	WCHT (n= 86)	MH (n= 80)	True HT (n= 499)	True NT (n= 1203)	WCHT (n=101)	MH (n= 67)	True HT (n=408)	Sex-effect	BP category effect	Interaction term
Age (years)	45.6 ± 14.9	56.2 ± 13.7	51.4 ± 19.6	53.9 ± 13.5	44.5±13.6	61.0±11.0	59.8±14.5	53.1±14.8	.0001	.0001	.0001
Diabetes mellitus (%)	5.2	10.5	15.0	11.0	2.8	9.9	16.4	8.6	0.50	.0001	0.80
BMI (Kg/m ²)	25.6 ± 3.4	29.6 ± 4.2	26.5 ± 3.8	27.8 ± 3.5	23.9 ± 4.3	28.6 ± 4.8	27.1±5.4	25.7 ± 4.9	.0001	.0001	.01
Waist circumference (cm)	89.8 ± 10.0	100.3±10.8	91.9 ± 9.8	95.5 ± 9.5	80.0±10.1	88.7 ± 9.8	86.8±12.0	83.9±11.7	.0001	.0001	.01
Fasting glucose (mg/dl)	97.7 ± 17.3	105.1±24.7	106.3±26.4	105.7±27.7	91.2 ± 18.5	98.7 ± 18.6	103.5±33.4	98.3±23.8	.0001	.0001	0.68
Total cholesterol (mg/dl)	211.0±37.6	226.3±38.4	205.4±45.8	224.5±40.9	215.8±39.3	233.6±36.6	227.2±38.7	224.0±37.6	.0001	.0001	.01
LDL cholesterol (mg/dl)	136.3±33.1	147.9±29.9	132.1±39.7	145.8±35.0	135.2±34.0	149.3±31.0	140.9±33.8	141.7±32.5	0.53	.0001	0.17
HDL cholesterol (mg/dl)	50.7 ± 12.1	51.1 ± 11.9	49.9 ± 12.8	51.3 ± 12.6	62.2±13.9	61.8 ± 14.6	63.4 ± 17.5	60.7 ± 12.3	.0001	0.86	0.15
Triglycerides (mg/dl)	120.1±67.0	136.5±63.5	118.5±72.2	141.9±101.6	92.7±48.4	110.7±59.7	114.4±60.5	107.8±55.5	.0001	.0001	0.09
Serum creatinine (mg/ml)	0.95 ± 0.14	0.98 ± 0.18	0.93 ± 0.14	0.97 ± 0.16	0.79 ± 0.14	0.82 ± 0.15	0.80 ± 0.15	0.79 ± 0.14	.0001	0.06	0.14
Uric acid (mg/ml)	5.3 ± 1.1	5.9 ± 1.2	5.5 ± 1.1	5.7 ± 1.2	3.7 ± 0.9	4.4 ± 1.1	4.1 ± 1.0	3.9 ± 1.1	.0001	.0001	0.13

Supplementary Table 4B: Office, central, and ABPM blood pressures of subjects not assuming antihypertensive medications according to their office and 24hABPM BP profile in men and women

	MEN				WOMEN				ANCOVA analysis (p <)		
	True NT (n=518)	WCHT (n= 86)	MH (n= 80)	True HT (n= 499)	True NT (n= 1203)	WCHT (n=101)	MH (n= 67)	True HT (n=408)	Sex-effect	BP category effect	Interaction term
Office SBP (mmHg)	120.0±9.6	144.3±12.1	126.0 ± 9.4	138.7 ± 16.7	113.6±10.8	145.6±9.8	127.3±8.7	133.8±18.9	.01	.0001	.0001
Office DBP (mmHg)	75.2 ± 6.9	88.5 ± 7.1	75.3 ± 6.4	85.5 ± 9.5	71.6 ± 7.0	87.8 ± 7.4	75.0 ± 6.3	82.1 ± 9.8	.0001	.0001	.01
Office MBP (mmHg)	90.0 ± 6.9	106.9±5.9	92.0 ± 6.3	103.1 ± 10.6	85.5 ± 7.6	106.9±5.7	92.3 ± 6.0	99.2 ± 11.8	.0001	.0001	.001
Office PP (mmHg)	44.8 ± 8.2	55.8 ± 14.5	50.8 ± 8.7	53.2 ± 13.7	42.0 ± 8.0	57.8±12.7	52.3 ± 8.5	51.7 ± 14.1	0.80	.0001	.01
HR (bpm)	65.5 ± 10.7	66.3 ± 11.2	65.6 ± 9.9	67.1 ± 10.7	69.9 ± 10.6	70.7 ± 10.6	68.0 ± 9.8	72.8 ± 11.2	.0001	.0001	0.26
24h SBP (mmHg)	115.6±5.5	117.4±5.4	128.9±3.3	131.9 ± 9.9	111.2±6.3	117.1±4.9	129.8±4.6	129.4±9.2	.0001	.0001	.01
24h DBP (mmHg)	71.6 ± 4.8	72.6 ± 4.7	74.7 ± 3.9	83.4 ± 6.5	70.0 ± 4.9	71.6 ± 4.9	74.2 ± 4.5	82.3±6.1	.01	.0001	0.55
Central SBP (mmHg)	105.0±10.2	128.9±12.8	111.5 ± 10.1	125.3 ± 16.8	101.8±12.3	133.2±10.8	115.5±12.4	123.1±20.0	0.39	.0001	.001
Central ESP (mmHg)	96.1 ± 9.6	117.5±10.3	101.3 ± 10.6	114.9 ± 14.7	93.1 ± 11.2	120.4 ± 9.2	104.4±10.8	112.0±16.8	0.97	.0001	.01