Supplementary material:

1: Supplementary table 1: Regression coefficients for the urinary Na/K-ratio (per 1 SD increase) for the associations with ABP (mmHg) (n=1311).

2: Supplementary table 2: Regression coefficients for the urinary Na/K-ratio (per 1 SD increase) with night-time ABP dip (%) as dependent variable (n=1311).

3: Supplementary table 3: Regression coefficients for the urinary Na/K-ratio (per 1 SD increase) with office BP (mmHg) and white coat effect (mmHg) as dependent variables (n=1311).

4: Supplementary table 4: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) for the associations with ABP (mmHg) with ACR substituted for values under limit of detection (n=1311).

5: Supplementary table 5: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) with night-time ABP dip (%) as dependent variable (n=1311).

6: Supplementary table 6: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) with night-time ABP dip (%) as dependent variable with ACR substituted for values under limit of detection (n=1311).

7: Supplementary table 7: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) for the associations with office BP (mmHg) and white coat effect (mmHg) as dependent variables with ACR substituted for values under limit of detection (n=1311).

8: Supplementary table 8: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) for the associations with hypertension phenotypes (n=1311) with ACR substituted for values under limit of detection (n=1311).

Supplementary table 1: Regression coefficients for the urinary Na/K-ratio (per 1 SD increase) for the associations with ABP (mmHg) (n=1311).												
	Model 1: Cardiovascular risk factors			**Model 2: +mGFR**			**Model 3: + ACR**			**Model 4: + EGF-Cr**		
	Std beta	**P**	**95% CI**	**Std beta**	**P**	**CI**	**Std beta**	**P**	**CI**	**Std Beta**	**P**	**CI**
24 h mean ABP as dependent variable												
Systolic BP	0.9	0.003	(0.3-1.6)	1.0	0.003	(0.3-1.6)	0.9	0.003	(0.3-1.6)	1.0	0.003	(0.3-1.6)
Diastolic BP	0.4	0.053	(-0.1-0.8)	0.4	0.053	(-0.0-0.8)	0.4	0.058	(-0.0-0.8)	0.4	0.056	(-0.0-0.8)
Mean daytime ABP as dependent variable												
Systolic BP	0.9	0.006	(0.3-1.6)	0.9	0.006	(0.3-1.6)	0.9	0.006	(0.3-1.6)	1.0	0.005	(0.3-1.6)
Diastolic BP	0.4	0.055	(-0.0-0.9)	0.4	0.055	(-0.0-0.9)	0.4	0.061	(-0.0-0.8)	0.4	0.060	(-0.0-0.8)
Mean night-time ABP as dependent variable												
Systolic BP	0.9	0.005	(0.3-1.5)	0.9	0.005	(0.3-1.5)	0.9	0.006	(0.3-1.5)	0.9	0.004	(0.3-1.6)
Diastolic BP	0.3	0.127	(-0.1-0.8)	0.3	0.125	(-0.1-0.8)	0.3	0.135	(-0.1-0.7)	0.3	0.119	(-0.1-0.8)

Regression models; Model 1; Cardiovascular risk factors: The model includes age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL-cholesterol.

Modell 2; + mGFR: In addition to the preceding model, the model includes mGFR. **Modell 3; + ACR**: In addition to the preceding model, the model includes ACR as a dichotomous variable (increased ACR: urine albumin over the limit of detection and ACR over 1.13mg/mmol, normal ACR: urine albumin under the limit of detection or ACR under 1.13mg/mmol). **Model 4; + EGF-Cr:** In addition to the preceding model, the model includes EGF-Cr.

Blood pressure (BP), ambulatory blood pressure (ABP), standardized regression coefficient (std beta), standard deviation (SD), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 2: Regression coefficients for the urinary Na/K-ratio (per 1 SD increase) with night-time ABP dip (%) as dependent variable (n=1311).											
Model 1: Cardiovascular risk factors			**Model 2: + mGFR**			**Model 3: + ACR**			**Model 4: +EGF-Cr**		
Std Beta	**P**	**95% CI**	**Std Beta**	**P**	**CI**	**Std beta**	**P**	**CI**	**Std Beta**	**P**	**CI**
Night-time systolic ABP dip											
-0.1	0.069	(-0.4-0.3)	-0.1	0.673	(-0.4-0.3)	-0.1	0.678	(-0.4-0.3)	-0.1	0.665	(-0.4-0.3)
Night-time diastolic ABP dip											
0.0	0.914	(-0.4-0.4)	0.0	0.923	(-0.4-0.4)	0.0	0.925	(-0.4-0.4)	0.0	0.973	(-0.4-0.4)

Night-time ABP dip, as the difference between daytime mean ABP and night-time mean ABP, expressed as a percentage of the day value.

Regression models: Model 1: Cardiovascular risk factors: The model includes age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL-cholesterol.

Model 2: + mGFR: In addition to the preceding model, the model includes mGFR. **Model 3: + ACR**: In addition to the preceding model, the model includes ACR as a dichotomous variable (increased ACR: urine albumin over the limit of detection and ACR over 1.13mg/mmol, normal ACR: urine albumin under the limit of detection or ACR under 1.13mg/mmol). **Model 4: + EGF-Cr:** In addition to the preceding model, the model includes EGF-Cr. Ambulatory blood pressure (ABP), standardized regression coefficient (Std beta), standard deviation (SD), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 3: Regression coefficients for the urinary Na/K-ratio (per 1 SD increase) with office BP (mmHg) and white coat effect (mmHg) as dependent variables (n=1311).											
Model 1: Cardiovascular risk factors			**Model 2: + mGFR**			**Model 3: + ACR**			**Model 4: + EGF-Cr**		
Std Beta	**P**	**95% CI**	**Std Beta**	**P**	**CI**	**Std beta**	**P**	**CI**	**Std Beta**	**P**	**CI**
Office systolic BP											
3.6	<0.001	(2.8-4.5)	3.6	<0.001	(2.8-4.5)	3.6	<0.001	(2.7-4.5)	3.6	<0.001	(2.8-4.5)
Office diastolic BP											
1.4	<0.001	(0.9-1.9)	1.4	<0.001	(0.9-1.8)	1.4	<0.001	(0.9-1.8)	1.4	<0.001	(0.9-1.9)
White coat effect systolic BP											
2.7	<0.001	(2.1-3.3)	2.7	<0.001	(2.1-3.3)	2.7	<0.001	(2.1-3.3)	2.7	<0.001	(2.0-3.3)
White coat effect diastolic BP											
1.0	<0.001	(0.6-1.3)	1.0	<0.001	(0.6-1.3)	1.0	<0.001	(0.6-1.3)	1.0	<0.001	(0.6-1.3)

The white coat effect as the discrepancies between the office BP and daytime mean ABP (mmHg) (office BP minus daytime mean ABP).
Regression models: Model 1: Cardiovascular risk factors: The model includes age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL-cholesterol.
Model 2: + mGFR: In addition to the preceding model, the model includes mGFR. **Model 3: + ACR**: In addition to the preceding model, the model includes ACR as a
dichotomous variable (increased ACR: urine albumin over the limit of detection and ACR over 1.13mg/mmol, normal ACR: urine albumin under the limit of detection
or ACR under 1.13mg/mmol). **Model 4: + EGF-Cr:** In addition to the preceding model, the model includes EGF-Cr.
Ambulatory blood pressure (ABP), standardized regression coefficient (Std beta), standard deviation (SD), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 4: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) for the associations with ABP (mmHg) with ACR substituted for values under limit of detection (n=1311).												
				Confidence interval					Confidence interval			
	Total effect (Na/K-ratio -ABP)	P value	Direct effect (Na/K-ratio-ABP)	Lower bound	Upper bound	P value	Relationship	Indirect effect	Lower bound	Upper bound	t-statistic	Conclusion
24 h mean ABP as dependent variable												
Systolic BP	0.93	0.003	0.95	0.33	1.58	0.003	M1	-0.00	-0.04	0.02	-0.23	No mediation effect
							M2	0.01	-0.01	0.03	0.76	No mediation effect
							M3	-0.02	-0.12	0.06	-0.54	No mediation effect
Diastolic BP	0.38	0.064	0.39	-0.02	0.79	0.061	M1	-0.00	-0.02	0.01	-0.17	No mediation effect
							M2	-0.00	-0.02	0.03	-0.05	No mediation effect
							M3	-0.00	-0.05	0.05	-0.19	No mediation effect
Mean daytime ABP as dependent variable												
Systolic BP	0.93	0.007	0.95	0.28	1.62	0.006	M1	-0.00	-0.04	0.25	-0.22	No mediation effect
							M2	0.01	-0.01	0.04	0.55	No mediation effect
							M3	-0.02	-0.11	0.06	-0.54	No mediation effect
Diastolic BP	0.41	0.062	0.41	-0.02	0.85	0.061	M1	0.00	-0.01	0.02	0.03	No mediation effect
							M2	-0.00	-0.02	0.03	-0.15	No mediation effect

							M3	-0.00	-0.05	0.05	-0.06	No mediation effect
Mean night-time ABP as dependent variable												
Systolic BP	0.90	0.006	0.92	0.28	1.56	0.005	M1	-0.00	-0.03	0.02	-0.09	No mediation effect
							M2	0.01	-0.01	0.05	0.90	No mediation effect
							M3	-0.03	-0.12	0.05	-0.79	No mediation effect
Diastolic BP	0.31	0.15	0.32	-0.10	0.75	0.14	M1	-0.00	-0.02	0.01	-0.19	No mediation effect
							M2	0.00	-0.01	0.03	0.37	No mediation effect
							M3	-0.02	-0.07	0.03	-0.64	No mediation effect

Relationships: **M1**: Na/K-ratio (SD)-> mGFR-> ABP (mmHg). **M2**: Na/K-ratio (SD)->ACR-> ABP (mmHg). **M3**: Na/K-ratio (SD)-> EGF-Cr -> ABP (mmHg)

Covariates: age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL- cholesterol.

95% confidence intervals based on 5,000 bootstrap samples.

Ambulatory blood pressure (ABP), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 5: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) with night-time ABP dip (%) as dependent variable (n=1311).												
	Total effect (Na/K-ratio – ABP)	P value	Direct effect (Na/K-ratio - ABP)	Confidence interval		P value	Relationship	Indirect effect	Confidence interval		t-statistic	Conclusion
				Lower bound	Upper bound				Lower bound	Upper bound		
Night-time ABP dip												
Systolic BP	-0.07	0.71	-0.07	-0.41	0.28	0.71	M1	-0.00	-0.02	0.01	-0.19	No mediation effect
							M2	-0.01	-0.02	0.01	-0.85	No mediation effect
							M3	0.01	-0.03	0.04	0.36	No mediation effect
Diastolic BP	0.06	0.78	0.05	-0.35	0.45	0.81	M1	0.00	-0.01	0.02	0.27	No mediation effect
							M2	-0.01	-0.02	0.01	-0.87	No mediation effect
							M3	0.01	-0.03	0.06	0.67	No mediation effect

Relationships: **M1**: Na/K-ratio (SD) -> mGFR-> ABP dip (%). **M2**: Na/K-ratio (SD)->ACR-> ABP dip (%). **M3**: Na/K-ratio (SD)-> EGF-Cr -> ABP dip (%).

Covariates: age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL- cholesterol.

95% confidence intervals based on 5,000 bootstrap samples.

Ambulatory blood pressure (ABP), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 6: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) with night-time ABP dip (%) as dependent variable with ACR substituted for values under limit of detection (n=1311).												
	Total effect (Na/K-ratio -ABP)	P value	Direct effect (Na/K-ratio – ABP)	Confidence interval		P value	Relationship	Indirect effect	Confidence interval		t-statistic	Conclusion
				Lower bound	Upper bound				Lower bound	Upper bound		
Night-time ABP dip												
Systolic BP	-0.08	0.66	-0.08	-0.42	0.27	0.66	M1	-0.00	-0.02	0.01	-0.17	No mediation effect
							M2	-0.01	-0.02	0.01	-0.84	No mediation effect
							M3	0.01	-0.03	0.00	0.35	No mediation effect
Diastolic BP	0.03	0.87	0.02	-0.37	0.42	0.90	M1	0.00	-0.01	0.02	0.27	No mediation effect
							M2	-0.01	-0.02	0.01	-0.87	No mediation effect
							M3	0.01	-0.03	0.06	0.66	No mediation effect

Relationships: **M1**: Na/K-ratio (SD)-> mGFR-> ABP dip (%). **M2**: Na/K-ratio (SD)->ACR-> ABP dip (%). **M3**: Na/K-ratio (SD)-> EGF-Cr -> ABP dip (%).

Covariates: age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL- cholesterol.

95% confidence intervals based on 5,000 bootstrap samples.

Ambulatory blood pressure (ABP), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 7: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) for the associations with office BP (mmHg) and white coat effect (mmHg) as dependent variables with ACR substituted for values under limit of detection (n=1311).												
	Total effect (Na/K-ratio – ABP)	P value	Direct effect (Na/K-ratio – ABP)	Confidence interval		P value	Relationship	Indirect effect	Confidence interval		t-statistic	Conclusion
				Lower bound	Upper bound				Lower bound	Upper bound		
Office BP												
Systolic BP	3.65	<0.001	3.66	2.79	4.52	<0.001	M1	0.01	-0.03	0.06	0.31	No mediation effect
							M2	0.01	-0.02	0.03	0.42	No mediation effect
							M3	-0.02	-0.14	0.10	0.30	No mediation effect
Diastolic BP	1.38	<0.001	1.38	0.90	1.85	<0.001	M1	0.01	-0.03	0.05	0.39	No mediation effect
							M2	-0.00	-0.01	0.03	-0.04	No mediation effect
							M3	-0.01	-0.06	0.05	-0.24	No mediation effect
Ambulatory white coat effect												

Systolic BP	2.71	<0.001	2.70	2.08	3.31	<0.001	M1	0.01	-0.04	0.06	0.40	No mediation effect
							M2	-0.00	-0.03	0.01	-0.24	No mediation effect
							M3	0.01	-0.06	0.08	-0.14	No mediation effect
Diastolic BP	0.97	<0.001	0.97	0.62	1.32	<0.001	M1	0.01	-0.03	0.05	0.40	No mediation effect
							M2	0.00	-0.02	0.01	0.22	No mediation effect
							M3	-0.01	-0.05	0.03	-0.32	No mediation effect

Relationships: **M1**: Na/K-ratio-> mGFR-> BP. **M2**: Na/K-ratio->ACR-> BP. **M3**: Na/K-ratio-> EGF-Cr -> BP

Covariates: age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL- cholesterol.

95% confidence intervals based on 5,000 bootstrap samples.

Ambulatory blood pressure (ABP), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).

Supplementary table 8: Mediation analysis for the urinary Na/K-ratio (per 1 SD increase) for the associations with hypertension phenotypes (n=1311) with ACR substituted for values under limit of detection (n=1311).								
Odds ratio for direct effect (Na/K-ratio - ABP)	Confidence interval		P value	Relationship	Odds ratio for the indirect effect	Confidence interval		Conclusion
	Lower bound	Upper bound				Lower bound	Upper bound	
Normotension vs white coat hypertension (n=824)								
1.31	1.06	1.60	0.010	M1	1.0	0.99	1.01	No mediation effect
				M2	1.0	0.99	1.01	No mediation effect
				M3	1.04	1.01	1.10	Partial mediation effect
Normotension vs masked hypertension								
0.90	0.74	1.11	0.30	M1	0.96	0.98	1.01	No mediation effect
				M2	1.0	0.99	1.04	No mediation effect
				M3	1.01	0.99	1.04	No mediation effect
Normotension vs sustained hypertension								
1.27	1.11	1.48	0.010	M1	1.0	0.99	1.01	No mediation effect
				M2	1.0	0.99	1.00	No mediation effect
				M3	1.0	0.99	1.0	No mediation effect

Relationships: M1: Na/K-ratio (SD)-> mGFR-> Hypertension phenotype. **M2**: Na/K-ratio (SD) ->ACR-> Hypertension phenotype. **M3**: Na/K-ratio (SD)-> EGF-Cr -> Hypertension phenotype.

Covariates: age, sex (male or female), waist-hip-ratio, HbA1c, triglycerides and HDL- cholesterol.

Results are expressed in odd ratios, 95% confidence intervals based on 5,000 bootstrap samples.

Ambulatory blood pressure (ABP), glomerular filtration rate as a single-sample plasma clearance of iohexol (mGFR), urine albumin creatinine ratio (ACR), epidermal growth factor to the urine creatinine concentration (EGF-Cr).