Supplementary materials

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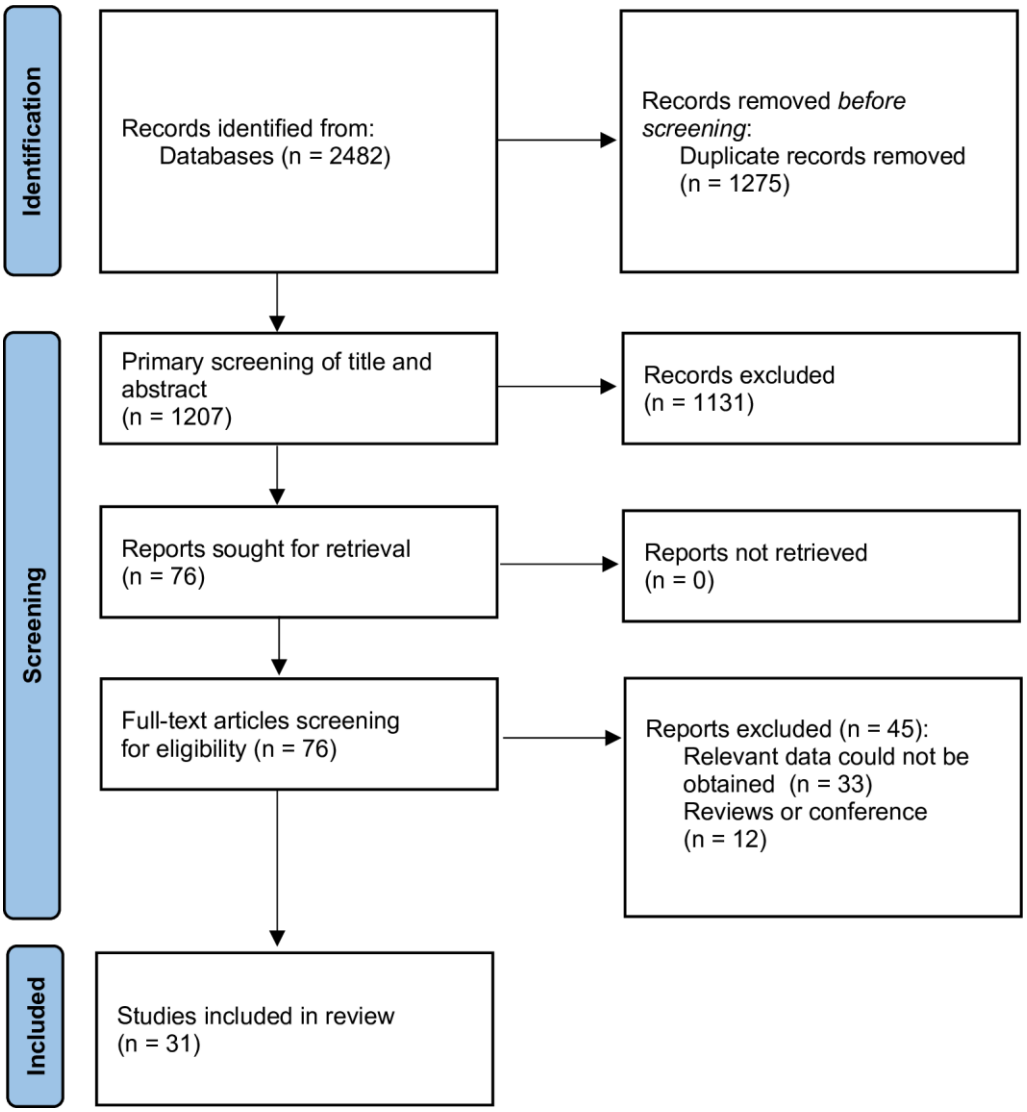

Supplementary Figure S1. Flow diagram of the study screening and selection process

Authors	Study year	Type of study	Location	Study entry	Intervention characteristics	Monitoring period	Salt/sodium intake level	Sample size	Endpoints	Follow up
García-Ortiz L. et al.	2012	Cross-sectional	Spain	General adult population	Observational, dietary sodium and potassium intake estimation	Single time-point	J-shaped relationship of Na and K intake	290	Arterial stiffness, cIMT	None
Jung S. et al.	2019	Prospective cohort	Korea	Adults ≥ 40 years	Urinary Na/K ratio measured	Mean 2.8 years	High sodium intake, high Na/K ratio	1739	baPWV, cIMT progression	2.8 years
Jankowski P. et al.	2015	Cross-sectional	Poland	Hypertensive adults	24-h urinary sodium excretion	Single time-point	Higher sodium excretion	479	BP–vascular damage association	None
Lee S.K. et al.	2015	Cross-sectional	Korea	Non-hypertensive population	Urinary sodium excretion	Single time-point	Sodium excretion levels	2036	CV structure, LV mass index, left atrial volume	None
Njoroge J.N. et al.	2011	Cross-sectional	USA	Normotensive overweight/obese adults	24-h urinary sodium	Single time-point	High urinary sodium	258	cIMT	None
Ustundag S. et al.	2015	Cross-sectional	Turkey	CKD patients	24-h urinary sodium	Single time-point	Higher urinary sodium	172	cIMT	None
Zhang Z. et al.	2021	Cross-sectional	China (high altitude)	High-altitude residents	24-h urinary sodium excretion	Single time-point	Higher sodium excretion	163	Central hemodynamics, vascular structure/function	None
Avolio A.P. et al.	1986	Intervention (low salt diet)	Australia	Normotensive adults	Low salt diet *vs* usual	Weeks	Reduced salt diet	20	Arterial distensibility	None
Baldo M.P. et al.	2019	Cross-sectional (ELSA-Brasil)	Brazil	Normotensive adults	Dietary sodium intake estimation	Single time-point	Higher salt intake	8809	Arterial stiffness mediated by BP, sex-specific effect	None
Brady T.M.	2022	Cross-	USA	Children and	Dietary sodium	Single	High sodium	775	Arterial stiffness	None

et al.		sectional		young adults	intake, urinary sodium	time-point	intake			
Dickinson K.M. et al.	2014	Randomized crossover trial	Australia	Normotensive overweight/obese adults	Salt reduction from 9g/d to 6g/d	2-3 weeks	-3g/day sodium	45	Endothelial function, endothelin-1	Crossover
Gijsbers L. et al.	2015	Randomized placebo-controlled crossover	Netherlands	Untreated (pre)hypertensive adults	Controlled diet, 4-wk supplementation: Na (3.0 g/d), K (2.8 g/d), placebo	3-4 weeks	Baseline ~2.4 g/d Na + supplementation	36	endothelin-1; IL-8, FMD	Crossover
He F.J. et al.	2009	Randomized crossover trial	UK	Mild hypertensives (White, Black, Asian)	Modest salt reduction	2 weeks *per* phase	Lower *vs* higher salt intake	80	BP, urinary albumin, PWV	Crossover
Jaques D.A. et al.	2020	Cross-sectional	Switzerland	Adult population-based study	Urinary sodium excretion	Single time-point	Higher urinary sodium	1060	Renal resistive index	None
McMahon E.J. et al.	2013	Randomized trial	Australia	CKD patients	Low-sodium diet *vs* moderate sodium	2 weeks	80 mmol/day *vs* 180 mmol/day	20	BP, proteinuria, extracellular fluid	Short-term
Muth B.J. et al.	2017	Randomized crossover trial	USA	Young/middle-aged adults	Low *vs* high sodium diet	7 days *per* diet	50 mmol/day *vs* 300 mmol/day	37	Central systolic BP, aortic stiffness	Crossover
Nerbass F.B. et al.	2015	Prospective cohort	UK (primary care CKD)	CKD patients in primary care	Urinary sodium intake estimated	Mean 3.5 years	Reduction in sodium intake	117	BP control	3.5 years
Nowak K.L. et al.	2019	Cross-sectional (SPRINT)	USA	SPRINT participants	Serum sodium analysis	Baseline	Higher serum sodium	4126	Pulse pressure	None
Pimenta E. et al.	2009	Randomized crossover trial	USA	Resistant hypertension	Low sodium *vs* high sodium diet	7 days each phase	50 mmol/day *vs* 250 mmol/day	12	BP, arterial stiffness	Crossover
Suckling R.J. et al.	2016	Randomized double-	UK	IGT and type 2 diabetes patients	Modest salt reduction	6 weeks	-50 mmol/day sodium	45	BP, albumin excretion	Short-term

		blind trial								
Todd A.S. et al.	2010	RCT crossover	New Zealand	Hypertensive volunteers (SBP ≥130 mmHg)	2-wk low-salt run-in, then 3 interventions (0, 90, 140 mmol Na/day)	4 weeks per arm	0 *vs* 90 *vs* 140 mmol/day	35	PWV, SBP/DBP	Crossover
Todd A.S. et al.	2012	RCT crossover	New Zealand	Normotensive volunteers (SBP <130 mmHg)	Same 3 interventions as hypertensive study	4 weeks *per* arm	0 *vs* 90 *vs* 140 mmol/day	23	PWV, SBP, DBP	Crossover
Tsirimiagkou C. et al.	2021	Cross-sectional	Greece	Adults with CVD risk factors	Two 24-h dietary recalls	Single time-point	Quartiles (Q1–Q4)	901	Atheromatosis risk, arterial stiffness (cf-PWV)	None
Del Giorno R. et al.	2020	Cross-sectional	Switzerland	General adult population	Day *vs* night 24-h urinary sodium excretion	Single time-point	Day:night ratio (tertiles)	1062	cf-PWV, central BP	None
Huang Y. et al.	2021	Cross-sectional	China	Type 2 diabetes patients	24-h or spot urine sodium	Single time-point	Quartiles	1545	Risk of DKD; UACR, arterial stiffeness	None
Kocyigit H. et al.	2020	Prospective cohort	Turkey	Peritoneal dialysis patients	Sodium excretion *via* PD + urine	3 years	Low *vs* high excretion groups	70	SBP, MAP, NT-proBNP, PWV, mortality	3 years
Gates P.E. et al.	2004	Randomized crossover trial	USA	Older adults with systolic hypertension	Salt restriction	2-4 weeks	Na ↓ 135 to 54 mmol/day	12	Carotid compliance, SBP	Crossover
Starmans-Kool M.J. et al.	2011	Randomized double-blind crossover	UK	Healthy young men (normotensive)	Low *vs* high salt diet	6 weeks *per* diet arm	Low 60–80 mmol/d *vs* high (+128 mmol/d)	10	Carotid SBP, AIx, wave reflection	Crossover
Xing X. et al.	2018	Randomized crossover	China	Adults 18–60 y, free from severe	Low-salt, high-salt, high-salt+K	3 × 7 days	51.3 *vs* 307.8 mmol Na/d;	99	Central BP,	Crossover

		dietary intervention		disease	supplementation (7 days each)		+60 mmol K/d			
Han W. et al.	2017	Cross-sectional	China	Untreated hypertensive patients	24-h urinary sodium and potassium excretion	Single time-point	Mean UNa: 167 mmol/24h	431	central SBP, DBP, AIx, baPWV	None

Supplementary Table SI. Main characteristics of the studies included in the present meta-analysis