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Rebholz, et al, 2016 <sup>14</sup>	Dietary Acid Load	FFQ	Dietary acid load estimated using Potential Renal Acid Load (PRAL).	PRAL= 0.49* protein + 0.037* phosphorus- 0.021* potassium – 0.026* magnesium- 0.013* calcium. Net Endogenous Acid Production (NEAP) was used as a sensitivity analysis. NEAP= 54.5* (protein/potassium)-10.2.	Quartile 4 (Highest)	Quartile 1 (Lowest)	Age, sex, race-centre, total caloric intake, diabetes status, hypertension status, overweight/obese status, smoking status, education level, physical activity, baseline GFR
Rebholz, et al, 2016 <sup>15</sup>	Dietary Approaches to Stop Hypertension	FFQ	DASH Diet Score. Low intake of (1) red & processed meat, (2) sweetened beverages & (3) sodium, as well as high intakes of (4) fruits, (5) vegetables, (6) whole grains, (7), nuts & legumes, & (8) low-fat dairy.	Each component scored from 1-5 based on ranking distribution in quintiles.	Tertile 1 (Low: 8-22)	Tertile 3 (High: 27-40)	Age, sex, race-centre, education level, smoking status, physical activity, total caloric intake, baseline GFR, overweight/obese status, diabetes, hypertension, systolic blood pressure, use of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers

Study	Dietary Pattern	Data Assessment Method	Dietary Exposure	Measurement of Exposure	Exposure Category	Reference Category	Covariates Included
Smyth, et al, 2016 <sup>16</sup>	Alternate Healthy Eating Index; Healthy Eating Index; Mediterranean Diet Score; Recommended Food Score; Dietary Approaches to Stop Hypertension	FFQ	AHEI: total vegetables, total fruit, whole grains, sugar sweetened beverages, nuts & legumes, red/processed meat, trans fat, long-chain fats, polyunsaturated fatty acids, sodium & alcohol. Compared with AHEI, HEI included dairy and excludes sugar sweetened beverages, but shares other components. MDS: total vegetables, total fruits, whole grains, dairy, red/processed meat, poultry, fish, fats & alcohol. RFS: 23 components including, vegetables, fruit, grains, poultry & fish, but does not account for fats, sugars, sodium or alcohol. DASH: total vegetables, total fruit, while grains, dairy, sugar sweetened beverages, nuts & legumes, red/processed meat & sodium.	Scored based on 1 (worst) for the lowest quartile & 4 (best) for the highest quartile). Three components: reduced intake of sodium, sugar sweetened beverages, & red and processed meats (Lowest quartile given score of 4 & highest quartile given score of 1.  AHEI vs HEI: Differences: (1) separate scores are included for total vegetables & greens & beans; (2) fruits are divided into total fruit & whole fruit; (3) grains include whole and refine separately; (4) includes total protein and protein from seafood or plant sources; (5) fats are scored differently; (6) “empty calories” are also a component (including calories from solid fats, alcohol & added sugars).	Quartile 5 (Highest)  Med diet score = 7.3±0.5  Mean RFS = 63.2±5.2	Quartile 1 (Lowest)  Med diet score = 2.3±0.8  Mean RFS = 0.0±0.0	Age, sex, gender, BMI, smoking, education, ethnicity, physical activity, diabetes, heart disease, stroke, potassium intake, sodium intake

Study	Dietary Pattern	Data Assessment Method	Dietary Exposure	Measurement of Exposure	Exposure Category	Reference Category	Covariates Included
Yuzbashian, et al 2018	Dietary Approaches to Stop Hypertension	FFQ	DASH-style Diet Score. Eight components: high intakes of fruit, vegetables, low-fat dairy, nuts, legumes, wholegrains; low intakes of sodium, sweetened beverages, red & processed meats.	Bottom quartile given score of 1, those in top quartile given score of 5. Nil alcohol.	Quartile 5 (Highest)  Mean score = 5	Quartile 1 (Lowest)  Mean score = 1	Age, sex, smoking, total angiotensin-converting enzyme use, BMI, physical activity. For the dylipidemia analysis, adjustments also included hypertension and dysglycemia. For the hypertension analysis, adjustments also included dylipidemia and dysglycemia. For the dysglycemia analysis, adjustments also included dylipidemia and hypertension.

**Abbreviations:** ACR= albumin/Creatinine Ratio; UACR= urinary Albumin/Creatinine Ratio; CKD= chronic kidney disease; GFR= glomerular filtration rate; BMI= body mass index; LDL= low-density lipoprotein; HDL= high-density lipoprotein; TG= triglycerides; BP= blood pressure; T2DM= type II diabetes; FFQ= Food frequency questionnaire; PRAL=potential renal acid load; NAE=net acid excretion. NA= not applicable; NP= not published; DASH= dietary approaches to stop hypertension; RFS= recommended food score; AHEI= alternate healthy eating index; HEI= healthy eating index; ACE= angiotensin converting enzyme; HbA1c= glycosylated haemoglobin; ONTARGET= Ongoing Telmisartan Alone and in combination with Ramipril Global Endpoint Trial; ARB= angiotensin receptor blockade

**Supplemental Table 3.** Measurement of outcomes

Study	Outcomes	Measurement of Outcomes	Type of Ratio
Asghari, et al, 2017 <sup>1</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup> (self-reported)	OR
Asghari, et al, 2017 <sup>2</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup>	OR
Asghari, et al, 2018 <sup>17</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup>	OR
Dunkler, et al, 2016 <sup>5</sup>	Incident CKD	New moderate or severe albuminuria (UACR >3.4 or >33.9mg/mmol) and/or decline in eGFR (annual eGFR decline >5%, need for dialysis during follow-up, and/or eGFR ≤15mL/min per 1.73m <sup>2</sup> at 5.5 years)	OR
Foster, et al, 2014 <sup>6</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup>	OR
	eGFR decline	≥3mL/min per 1.73m <sup>2</sup> per year	
Khatri, et al, 2014 <sup>8</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup>	OR
	eGFR decline	≥2.5mL/min per 1.73m <sup>2</sup> per year	
	Incident CKD	<60mL/min per 1.73m <sup>2</sup>	
Liu, et al, 2016 <sup>9</sup>	Rapid kidney function decline	≥3mL/min per 1.73m <sup>2</sup> per year	RR
	eGFR decline	≥25% from baseline	
Rebholz, et al, 2015 <sup>13</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup> accompanied by ≥25% eGFR decline from baseline	HR
Rebholz, et al, 2016 <sup>14</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup> accompanied by ≥25% eGFR decline from baseline	HR
Rebholz, et al, 2016 <sup>15</sup>	Incident CKD	Meet at least one of the following: (1) <60mL/min per 1.73m <sup>2</sup> accompanied by ≥25% eGFR decline from baseline; (2) ≥25% eGFR decline from baseline; (3) ESRD (dialysis or transplantation)	HR
Haring, et al, 2016 <sup>7</sup>	Incident CKD	<60mL/min per 1.73m <sup>2</sup> accompanied by ≥25% eGFR decline from baseline	HR
Chang, et al, 2013 <sup>3</sup>	Spot urine albumin-creatinine ratio	Albumin: Nephelometric procedure with anti-albumin monoclonal antibody; Creatinine: Jaffe method.	OR

Study	Outcomes	Measurement of Outcomes	Type of Ratio
	Incident Microalbuminuria	Presence of race & sex-adjusted ACR $\geq 25$ mg/g at 2 or more successive follow-ups.	
Smyth, et al, 2016 <sup>16</sup>	Death (due to renal causes)	Death where CKD was listed as primary or contributing cause of death based on the International Classification of Diseases coding system	HR
	Dialysis	Self-reported questionnaire	
Lin, et al, 2011 <sup>10</sup>	Incident Microalbuminuria	ACR $\geq 25$ mg/g	OR
	eGFR decline	$\geq 30\%$ from baseline or $\geq 3$ mL/min per 1.73m <sup>2</sup> per year	
Chung, et al, 2017 <sup>4</sup>	Incident Albuminuria	ACR $\geq 30$ mg/g	OR
	Elevated serum creatinine	Men: $\geq 1.5$ mg/dL & Women: $\geq 1.2$ mg/dL	OR
	Incident CKD	$< 60$ mL/min per 1.73m <sup>2</sup>	
	Incident CKD	$< 60$ mL/min per 1.73m <sup>2</sup>	
Ma, et al, 2016 <sup>11</sup>	eGFR decline	Mean annual eGFR decline $\geq 3$ mL/min per 1.72m <sup>2</sup>	OR
	Incident Albuminuria	UACR $\geq 17$ mg/g for men & $\geq 25$ mg/g for women	
Naderinejad, et al, 2016 <sup>12</sup>	Incident CKD	$< 60$ mL/min per 1.73m <sup>2</sup>	OR
Yukbashian, et al 2018 <sup>18</sup>	Incident CKD	$< 60$ mL/min per 1.73m <sup>2</sup>	OR

**Abbreviations:** CKD= chronic kidney disease; UACR= urine albumin-to-creatinine ratio; eGFR= estimated glomerular filtration rate; ESRD= end stage renal disease; ACR= albumin-to-creatinine ratio; RR= relative risk; OR= odds ratio; HR: hazard ratio

**Supplemental Table 4.** Results from sensitivity analysis substituting data from secondary publications of the same cohort dataset. The shaded rows represent the study citation included in the primary analysis.

Citation	Diet pattern	Cohort	Cohort sample size	Association estimate in sensitivity analysis
<b>CKD incidence</b>				
Ashghari, et al 2017	DASH	Tehran Lipid and Glucose Study 2006-08	1630	0.70 (0.60, 0.82); I <sup>2</sup> =51%
Ashghari, et al 2017	MED		1212	0.71 (0.61, 0.81); I <sup>2</sup> =40%
Ashghari, et al 2018	Lacto-vegetarian		1630	0.70 (0.61, 0.80); I <sup>2</sup> =42%
Naderinejad, et al 2016	Healthy diet score		1521	0.73 (0.63, 0.84); I <sup>2</sup> =39%
Yuzbashian, et al 2018	DASH, dyslipidemia	Tehran Lipid and Glucose Study 2009-11	2715	0.70 (0.60, 0.82); I <sup>2</sup> =51%
Yuzbashian, et al 2018	DASH, dysglycemia		1100	0.69 (0.59, 0.82); I <sup>2</sup> =52%
Yuzbashian, et al 2018	DASH, hypertension		2089	0.70 (0.59, 0.82); I <sup>2</sup> =52%
Rebholz, et al 2015	Diet acid load	ARIC	15,055	0.70 (0.60, 0.82); I <sup>2</sup> =51%
Rebholz, et al 2016	AHA Healthy diet score		14,832	0.74 (0.60, 0.93); I <sup>2</sup> =73%
Rebholz, et al 2016	DASH		14,882	0.73 (0.60, 0.88); I <sup>2</sup> =70%
Haring, et al 2018	Vegetable protein		11,952	0.69 (0.59, 0.82); I <sup>2</sup> =50%
Ma, et al 2016	Dietary Guidelines Index	Framingham Offspring Cohort	1822	0.70 (0.60, 0.82); I <sup>2</sup> =51%
Foster, et al 2015	Dietary Guidelines Adherence Score		1802	0.69 (0.58, 0.81); I <sup>2</sup> =50%

Supplemental material is neither peer-reviewed nor thoroughly edited by CJASN. The authors alone are responsible for the accuracy and presentation of the material.

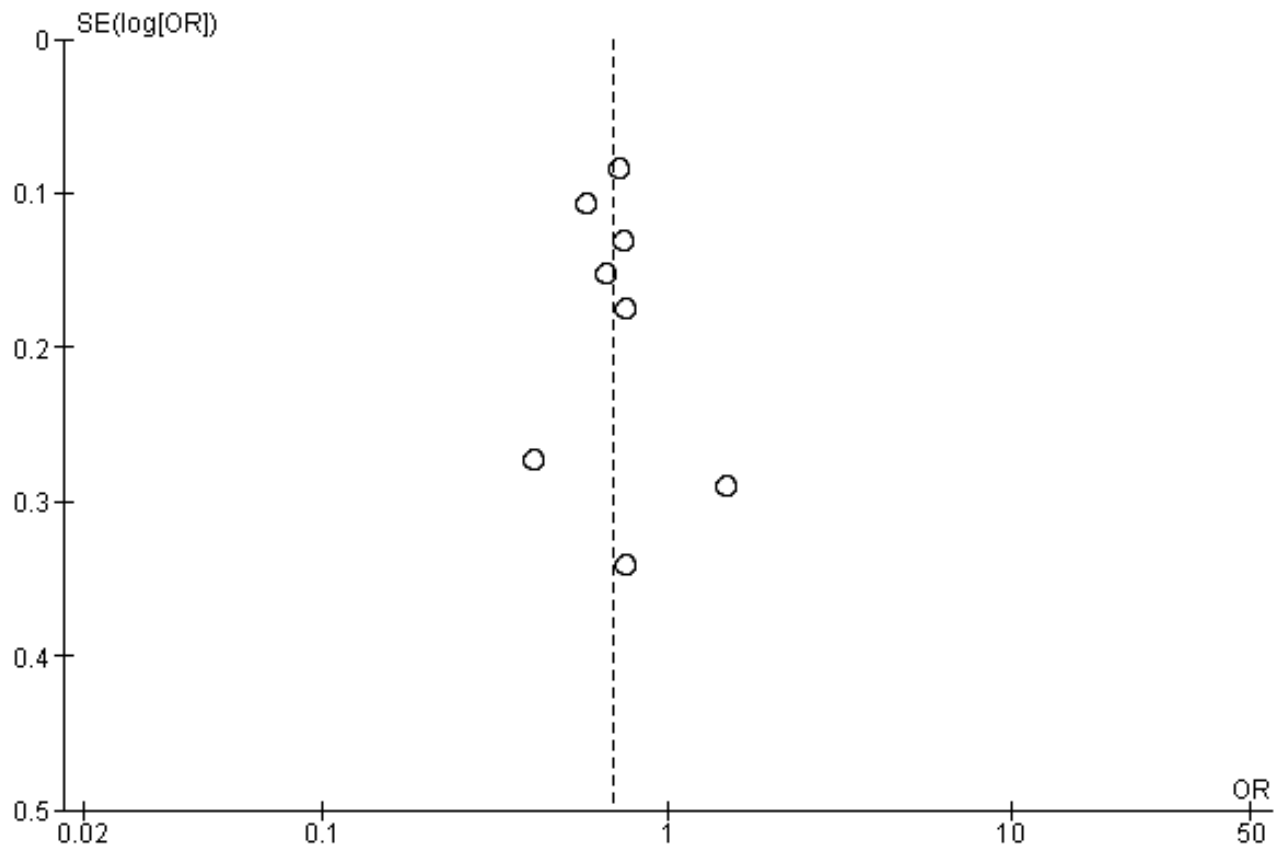
eGFR decline				
Ma, et al 2016	Dietary Guidelines Index	Framingham Offspring Cohort	1822	0.70 (0.49, 1.01); I <sup>2</sup> =59%
Foster, et al 2015	Dietary Guidelines Adherence Score		1802	0.73 (0.52, 1.03); I <sup>2</sup> =56%

**Abbreviations:** AHEI: Alternate Healthy Eating Index, ARIC: Atherosclerosis Risk in Communities, CARDIA: Coronary Artery Risk Development in young Adults, DASH: Dietary Approaches to Stop Hypertension, DMIDS: Diabetes Management through an Integrated Delivery System, HEI: Healthy Eating Index, mAHEI: Modified Alternate Healthy Eating Index, MED: Mediterranean, NIH-AARP: National Institute of Health - American Association of Retired Persons, RFS: Recommended Food Score, ONTARGET: Ongoing Telmisartan Alone and in combination with Ramipril Global Endpoint Trial.

**Supplemental Table 5: Subgroup analysis for Incident CKD**

<b>Variable (No of studies)</b>	<b>Odds Ratio (95% CI)</b>
Dietary pattern:	
DASH (4)	0.81 (0.47-1.39)
Mediterranean (2)	0.61 (0.40-0.93)
Dietary Guidelines (2)	0.64 (0.50-0.84)
Duration:	
<6 years (4)	0.76 (0.59-0.97)
>6 years (5)	0.68 (0.55-0.84)
Country of origin:	
USA (4)	0.82 (0.63-1.06)
Other (4)	0.62 (0.52-0.75)
Association estimate:	
Odds Ratio (6)	0.65 (0.56-0.75)
Hazard Ratio (2)	0.98 (0.49-0.1.97)
Sample size:	
<5,000 participants (6)	0.73 (0.58-0.94)
>5,000 participants (2)	0.65 (0.53-0.81)





**Supplemental Figure 1.** Funnel Plot for risk of incidence of CKD associated with adherence to healthy dietary patterns

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