

ESM Table 1: Pooled hazard ratios (95%CI) of type 2 diabetes for dietary net endogenous acid production (NEAP) by strata of BMI, smoking status, hypertension, kidney stones and age.

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	P-trend	P-interaction
By BMI^b							0.4237
BMI < 25 kg/m	1.00	1.05 (0.86, 1.29)	1.09 (0.87, 1.37)	1.14 (1.05, 1.24) ^a	1.33 (1.13, 1.57) ^a	<0.0001	
Overweight	1.00	0.99 (0.84, 1.18)	1.05 (0.91, 1.22)	1.06 (0.96, 1.18)	1.24 (1.12, 1.38) ^a	<0.0001	
Obesity	1.00	0.98 (0.88, 1.09)	1.00 (0.85, 1.19)	1.06 (0.88, 1.27)	1.14 (0.96, 1.35)	0.020	
By Smoking^c							0.3272
Never smokers	1.00	1.00 (0.85, 1.18)	1.04 (0.86, 1.27)	1.09 (0.92, 1.28)	1.23 (1.10, 1.39) ^a	<0.0001	
Ever smokers	1.00	1.05 (0.96, 1.16)	1.09 (0.96, 1.24)	1.13 (1.02, 1.25) ^a	1.20 (1.08, 1.33) ^a	<0.0001	
By Hypertension^d							0.8875
No hypertension	1.00	1.03 (0.88, 1.20)	1.17 (1.07, 1.27) ^a	1.13 (1.04, 1.23) ^a	1.25 (1.15, 1.36) ^a	<0.0001	
Hypertension	1.00	1.03 (0.92, 1.14)	1.03 (0.81, 1.30)	1.12 (0.92, 1.35)	1.17 (0.99, 1.38)	0.0356	
By Kidney stones^e							0.3089
No kidney stones	1.00	1.02 (0.80, 1.30)	1.05 (0.84, 1.31)	1.06 (0.78, 1.44)	0.99 (0.70, 1.25)	0.5701	
Kidney stones	1.00	1.03 (0.91, 1.15)	1.07 (0.91, 1.20)	1.11 (0.99, 1.25)	1.11 (0.99, 1.29)	0.3551	
By Age^e							
<60 years	1.00	1.01 (0.85, 1.19)	1.07 (0.87, 1.31)	1.07 (0.89, 1.28)	1.19 (1.02, 1.38)	<0.0002	
≥ 60 years	1.00	0.99 (0.84, 1.18)	1.03 (0.87, 1.22)	1.09 (0.87, 1.37)	1.13 (0.98, 1.31)	0.0070	NA ^f

Pooled results from NHS, NHS2 and HPFS using random-effect meta-analysis. ^a $P < 0.05$; ^badjusted for total energy intake (quintiles), family history of diabetes (yes/no), menopausal status (pre or postmenopausal (never, past or current menopausal hormone use), presence of hypertension and hypercholesterolemia (yes/no), smoking status (never smoker, former smoker, current smoker: 1-14, 15-24 or ≥ 25 cigarettes/d), alcohol drinking (g/d: 0, 0.1-4.9, 5.0-14.9, 15.0-19.9, 20.0-29.9, and ≥30), moderate/vigorous intensity activities (hours/week: 0, 0.01-1.0, 1.0-3.5, 3.5-6.0, ≥6), glycemic load (quintiles), AHEI-index (quintiles; including the following components: sugar containing beverages, fruit, vegetables, nuts, red meat, whole grains, EPA, DHA, other PUFAs, transfat, and sodium) and Western diet. ^cadjusted for total energy intake (quintiles), family history of diabetes (yes/no), menopausal status (pre or postmenopausal (never, past or current menopausal hormone use), presence of hypertension and hypercholesterolemia (yes/no), alcohol drinking (g/d: 0,

0.1-4.9, 5.0-14.9, 15.0-19.9, 20.0-29.9, and ≥ 30), moderate/vigorous intensity activities (hours/week: 0, 0.01-1.0, 1.0-3.5, 3.5-6.0, ≥ 6), body mass index (continuous), glycemic load (quintiles), AHEI-index (quintiles; including the following components: sugar containing beverages, fruit, vegetables, nuts, red meat, whole grains, EPA, DHA, other PUFAs, transfat, and sodium) and Western diet. ^dadjusted for total energy intake (quintiles), family history of diabetes (yes/no), menopausal status (pre or postmenopausal (never, past or current menopausal hormone use), presence of hypercholesterolemia (yes/no), smoking status (never smoker, former smoker, current smoker: 1-14, 15-24 or ≥ 25 cigarettes/d), alcohol drinking (g/d: 0, 0.1-4.9, 5.0-14.9, 15.0-19.9, 20.0-29.9, and ≥ 30), moderate/vigorous intensity activities (hours/week: 0, 0.01-1.0, 1.0-3.5, 3.5-6.0, ≥ 6), body mass index (continuous) glycemic load (quintiles), AHEI-index (quintiles; including the following components: sugar containing beverages, fruit, vegetables, nuts, red meat, whole grains, EPA, DHA, other PUFAs, transfat, and sodium) and Western diet. ^eadjusted for total energy intake (quintiles), family history of diabetes (yes/no), menopausal status (pre or postmenopausal (never, past or current menopausal hormone use), presence of hypertension and hypercholesterolemia (yes/no), smoking status (never smoker, former smoker, current smoker: 1-14, 15-24 or ≥ 25 cigarettes/d), alcohol drinking (g/d: 0, 0.1-4.9, 5.0-14.9, 15.0-19.9, 20.0-29.9, and ≥ 30), moderate/vigorous intensity activities (hours/week: 0, 0.01-1.0, 1.0-3.5, 3.5-6.0, ≥ 6), body mass index (continuous), glycemic load (quintiles), AHEI-index (quintiles; including the following components: sugar containing beverages, fruit, vegetables, nuts, red meat, whole grains, EPA, DHA, other PUFAs, transfat, and sodium) and Western diet. ^f Due to age-stratification in cox proportional hazard model

The results were pooled using random-effect meta-analysis.