

Table S1. Participant Characteristics by Quartiles of Serum Bicarbonate for Total Population

Characteristic	Serum Bicarbonate (mEq/L)				P
	< 24	24 – 25	25.1 – 26.9	≥ 27	
Number	2573	2355	2711	2085	
Age (years)	42 (0.4)	45 (0.3)	46 (0.3)	49 (0.6)	<0.001
Women (%)	59 (1.2)	52 (1.2)	46 (0.9)	37 (1.2)	<0.001
Race/Ethnicity (%)					0.06
<i>Non-Hispanic White</i>	71 (2.3)	71 (2.3)	71 (2.1)	73 (1.6)	
<i>Mexican American</i>	9.7 (1.6)	8.0 (1.0)	7.4 (0.8)	5.0 (0.7)	
<i>Non-Hispanic Black</i>	9.6 (1.4)	9.9 (1.2)	11.0 (1.0)	11.7 (1.1)	
Body-mass index (kg/m²)	29.2 (0.2)	28.0 (0.2)	27.7 (0.2)	26.8 (0.1)	<0.001
Poverty (<100% poverty index, %)	15.1 (1.0)	12.5 (1.1)	12.2 (0.8)	9.8 (1.0)	<0.001
Less than high-school diploma (%)	20.5 (1.0)	18.6 (0.8)	19.9 (1.0)	18.4 (0.9)	0.2
Activity Level (MET-min/wk, %)					0.05
0	16.2 (1.0)	14.5 (0.9)	16.7 (1.0)	15.3 (0.9)	
< 500	22.3 (1.1)	21.1 (1.0)	18.6 (0.8)	20.3 (0.9)	
500 – 2000	34.6 (1.1)	34.5 (1.0)	37.3 (1.0)	34.5 (1.1)	
> 2000	26.8 (1.3)	29.8 (1.1)	27.4 (1.3)	29.9 (1.3)	
Smoking (%)					<0.001
<i>Never</i>	49.2 (2.2)	49.4 (1.3)	52.3 (1.1)	53.3 (1.2)	
<i>Former</i>	21.7 (1.2)	24.7 (1.0)	24.9 (1.0)	27.8 (1.2)	
<i>Current</i>	29.2 (1.6)	25.9 (1.2)	22.7 (0.9)	19.0 (1.1)	
Estimated NEAP (mEq/day)	60.8 (0.6)	60.2 (0.7)	56.1 (0.6)	53.9 (0.7)	<0.001
Fasting length ≤2 hours (%)	2.7 (0.4)	2.4 (0.4)	3.6 (0.5)	3.8 (0.5)	0.03
Diuretic use (%)	6.2 (0.6)	7.6 (0.8)	9.2 (0.8)	15.7 (1.3)	<0.001
Calcium carbonate use (%)	3.9 (0.5)	3.2 (0.6)	4.8 (0.5)	4.6 (0.8)	0.2
Hypertension (%)	37.2 (1.2)	36.1 (1.1)	38.0 (1.3)	43.0 (1.7)	0.001
Diabetes Mellitus (%)	9.1 (0.7)	7.5 (0.6)	8.1 (0.6)	8.5 (0.6)	0.6
Cardiovascular disease (%)	7.0 (0.5)	6.8 (0.6)	7.8 (0.7)	7.6 (0.5)	0.3
eGFR (mL/min/1.73m²)	97.0 (0.6)	95.0 (0.5)	93.9 (0.5)	91.0 (0.7)	<0.001
UACR > 30 mg/g (%)	9.6 (0.5)	9.1 (0.7)	8.2 (0.6)	8.3 (0.8)	0.1
Serum albumin (g/dL)	4.31 (0.01)	4.33 (0.01)	4.37 (0.01)	4.41 (0.02)	<0.001
Serum calcium (mg/dL)	9.42 (0.02)	9.51 (0.02)	9.48 (0.02)	9.54 (0.02)	<0.001
Serum phosphate (mg/dL)	3.66 (0.02)	3.71 (0.02)	3.63 (0.01)	3.65 (0.02)	0.2
C-reactive protein ≥ 1.0 mg/dL (%)	11.2 (0.8)	7.9 (0.6)	8.2 (0.8)	7.4 (0.6)	<0.001

Lumbar BMD (g/cm²)	1.05 (0.004)	1.04 (0.004)	1.05 (0.003)	1.05 (0.004)	0.9
Total BMD (g/cm²)	1.14 (0.004)	1.14 (0.004)	1.14 (0.003)	1.15 (0.004)	0.07
Total lean body mass (kg)	50.6 (0.3)	50.4 (0.3)	51.5 (0.3)	51.9 (0.3)	<0.001

Note: Conversion factors for units: serum albumin in g/dL to $\mu\text{mol/L}$, $\times 1.45$; serum calcium in mg/dL to mmol/L, $\times 0.2495$; serum phosphate in mg/dL to mmol/L, $\times 0.3229$; C-reactive protein in mg/dL to mg/L, $\times 10$; no conversion necessary for bicarbonate levels in mEq/L and mmol/L.

Abbreviations: MET, metabolic equivalent; NEAP, net endogenous acid production; eGFR, estimated glomerular filtration rate calculated using the CKD-EPI equation; UACR, urinary albumin-creatinine ratio; BMD, bone mineral density.

Data are expressed as mean (standard error (SE)) or percent (SE).