Table S1. Sensitivity analysis comparing the association of estimated GFR with specific serum $24,25(OH)_2D_3$ concentration to the association of estimated GFR with the summed concentration of dihydroxyvitamin D_3 metabolites ($24,25(OH)_2D_3$ and its interfering analyte(s)) among 932 participants in the Cardiovascular Health Study.

	Specific serum $24,25(OH)_2D_3$ concentration		**Summed dihydroxyvitamin D_3 metabolites**	
	Slope	Intercept	Slope	Intercept
Estimated GFR (mL/min/1.73m^2)				
≥ 90	1.13 (0.78 to 1.49)	2.11 (1.65 to 2.57)	1.29 (0.87 to 1.7)	2.74 (2.21 to 3.28)
60-89	1.13 (0.95 to 1.31)	1.88 (1.63 to 2.13)	1.29 (1.08 to 1.5)	2.52 (2.24 to 2.81)
45-59	0.9 (0.71 to 1.09)	1.82 (1.56 to 2.09)	1.04 (0.82 to 1.26)	2.45 (2.14 to 2.75)
30-44	0.86 (0.65 to 1.08)	1.47 (1.13 to 1.8)	1.04 (0.79 to 1.28)	2 (1.62 to 2.39)
15-29	0.92 (0.47 to 1.36)	1.18 (0.64 to 1.72)	1.05 (0.54 to 1.56)	1.82 (1.19 to 2.44)
< 15	0.26 (-1.98 to 2.5)	0.80 (-0.83 to 2.43)	0.02 (-2.57 to 2.61)	1.03 (-0.86 to 2.92)

Reported are the results of two multivariable regression models. The first evaluates the circulating concentration of specific $24,25(OH)_2D_3$ concentration as dependent variable. The second evaluates the summed concentration of dihydroxyvitamin D_3 metabolites ($24,25(OH)_2D_3$ and its interfering analyte(s)) as dependent variable. In addition to circulating 25-hydroxyvitamin D_3 concentration, each model includes age, sex, race/ethnicity, diabetes, body mass index, estimated GFR, urine ACR, and interactions of each of these variables with circulating 25-hydroxyvitamin D3 concentration as independent variables. Estimates are reported at mean values of the other independent variables. Slope is the increment in $24,25(OH)_2D_3$ per increment in $25(OH)D_3$ (in ng/mL per 10 ng/mL). Intercept is the mean $24,25(OH)_2D_3$ at $25(OH)D_3$ = 20 ng/mL (in ng/mL).