

Supplementary Table S1. Summary statistics data for the associations of the single-nucleotide polymorphisms with α -tocopherol and their associations with bone mineral density and any fracture

SNP	Chr	Nearby gene	EA	OA	Association with α -tocopherol			Association with BMD			Association with any fracture		
					Beta*	SE	P-value	Beta*	SE	P-value	Beta*	SE	P-value
rs964184	11	BUD13/ZNF259/APOA5	G	C	0.04	0.01	7.8E-12	0.00186	0.00271	0.49	0.00376	0.00964	0.70
rs2108622	19	CYP4F2	T	C	0.03	0.01	1.4E-10	0.01279	0.00202	2.3E-10	-0.00348	0.00712	0.63
rs11057830	12	SCARB1	A	G	0.03	0.01	8.2E-9	0.01238	0.00268	3.9E-06	-0.01302	0.00949	0.17

BMD, bone mineral density; Chr, chromosome; EA, effect allele; OA, other allele; SE, standard error; SNP, single-nucleotide polymorphism.

*The beta coefficients are in log-transformed mg/L for α -tocopherol, g/cm² for bone mineral density, and log-odds ratios for fracture.