

52 **Supplementary Table S5.** Canonical correlation analysis relating serum parameters with bone
 53 parameters, mineral intake with serum parameters, and mineral intake with bone parameters on
 54 experimental days 50 and 51 (n = 24).

Correlated data sets	Canonical function	Canonical correlation	Approximate F value	p-Values
Serum parameters ¹⁾ with bone parameters ²⁾	1	0.954	1.24	0.252
	2	0.845	0.76	0.802
	3	0.715	0.54	0.945
	4	0.588	0.39	0.971
	5	0.328	0.19	0.982
Mineral intake ³⁾ with serum parameters	1	0.764	0.71	0.827
	2	0.635	0.56	0.900
	3	0.515	0.48	0.860
Mineral intake with bone parameters	1	0.812	2.04	0.033
	2	0.498	0.86	0.562
	3	0.280	0.51	0.681

55 ¹⁾ Serum parameters include the data for phosphate (mmol/L), calcium (mmol/L), calcium to phosphate
 56 ratio, fibroblast growth factor 23 (pg/mL), vitamin D (ng/mL), alkaline phosphatase (U/L), osteocalcin
 57 (ng/mL), urea (mg/dL), cholesterol (mg/dL), triglycerides /mg/dL) and non-esterified fatty acids
 58 (mmol/L).

59 ²⁾ Bone parameters include the data for length, weight, cortical wall thickness, cross-sectional area and
 60 cortical index of metacarpal bone.

61 ³⁾ Mineral intake include the data for total phosphorus intake, available phosphorus intake and calcium
 62 intake.

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