



Supplementary material

Supplemental Table 1. Simple correlation coefficients (*r*) for the relationship between serum uric acid and BMD at different skeletal sites or serum makers of bone health among premenopausal and postmenopausal women.

Bone parameters	Premenopausal women (n = 124)	Postmenopausal women (n = 234)
Log Lumbar spine BMD	-0.082	0.056
Total hip, BMD	-0.010	0.165 ^a
Femoral neck BMD	-0.043	0.126
Log Trochanter BMD	-0.015	0.151 ^a
Log CTX-1	-	-0.081
Log BAP	-	0.010
Log RANKL	-	-0.181 ^a
Log OPG	-	-0.115
Log RANKL/OPG	-	-0.059

^a *p* < 0.05. BMD at trochanter and lumbar spine, and all serum markers of bone health were log-transformed to approach normal distribution. Abbreviations: BMI, body mass index; FM, fat mass; BMD, bone mineral density; CTX-1, C-terminal telopeptides of Type I; BAP, bone-specific alkaline phosphatase; RANKL, receptor activator of nuclear factor- κ B ligand; OPG, osteoprotegerin (OPG)

Supplemental Table 2. Unadjusted and adjusted association (expressed as standardized regression coefficient) between uric acid and total hip BMD across quartiles of BMI, waist circumference, trunk FM, and total FM

-Independent variables	Quartile I	Quartile II	Quartile III	Quartile IV
-BMI (kg/m ²)	<22.4	22.4-24.1	24.2-26.7	>26.7
β	-0.001	0.227	0.051	0.320 ^a
β adjusted	-0.002	0.228	0.004	0.347 ^a
-Waist circumference (cm)	<78	78-84	84.1-91	>91
β	0.139	0.080	-0.079	0.426 ^a
β adjusted	0.137	0.101	-0.006	0.444 ^b
-Trunk FM (Kg)	<7.4	7.4-9.8	9.9-12.6	>12.6
β	-0.040	-0.070	0.201	0.286 ^a
β adjusted	-0.090	0.070	-0.143	0.404 ^a
-Total FM (Kg)	<18.0	18.0-22.2	22.3-26.1	>26.1
β	0.007	0.043	-0.047	0.426 ^a
β adjusted	0.048	0.011	0.032	0.445 ^b

β = standardized regression coefficient for uric acid vs. total hip BMD. β adjusted = standardized regression coefficient for uric acid vs. total hip BMD after adjustment for age, smoking, hormones treatment and years since menopause. Abbreviations: BMI, body mass index; FM, fat mass; BMD, bone mineral density.

