

**ASSOCIATION OF CIRCULATING RENIN AND ALDOSTERONE WITH
OSTEOCALCIN AND BONE MINERAL DENSITY IN AFRICAN ANCESTRY
FAMILIES**

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Table S1. Multivariable* Association of Plasma Aldosterone Concentration and Aldosterone to Renin Ratio with Osteocalcin and Bone Mineral Density in African Ancestry Families

Bone Measure	Difference (%) in		Difference (%) in	
	bone measure per 1 SD PAC [†]	P-value	bone measure per 1 SD ARR [‡]	P-value
Total OC (ug/l)	0.23	0.881	8.69	<0.0001
Whole Body BMD (g/cm ²)	-0.62	0.185	-0.80	0.121
Total Hip BMD (g/cm ²)	-0.22	0.730	-1.26	0.072
Cortical BMD (g/cm ³)	0.02	0.896	0.07	0.577
Trabecular BMD (g/cm ³)	0.07	0.907	-1.69	0.014

*Multivariable model includes adjustment for age, sex, height, weight, menopausal status, systolic blood pressure, diastolic blood pressure, hypertensive medication, eGFR, diabetes, current smoking, drinking, walking and calcium supplementation.

[†]Values shown are the percent difference in bone measure per 1 SD (8.1 ng/dL) greater plasma aldosterone concentration.

[‡]Values shown are the percent difference in bone measure per 1 SD (17.9 ng/dL per ng/mL/h) greater aldosterone to renin ratio.

Table S2. Multivariable* Adjusted Genetic Correlations of Aldosterone to Renin Ratio with Osteocalcin and Bone Mineral Density

Bone Measure	Heritability	Aldosterone to Renin Ratio ($H^2_r \pm SE = 0.705 \pm 0.10$)	
	($H^2_r \pm SE$)	ρ_G	ρ_G P-value
Total OC (ug/l)	0.727 \pm 0.11	0.323	0.022
Whole Body BMD (g/cm ²)	0.623 \pm 0.12	0.175	0.288
Total Hip BMD (g/cm ²)	0.696 \pm 0.10	-0.052	0.717
Cortical BMD (g/cm ³)	0.444 \pm 0.12	0.199	0.243
Trabecular BMD (g/cm ³)	0.622 \pm 0.11	0.118	0.455

*Multivariable models include adjustment for age, sex, height, weight, menopausal status, systolic blood pressure, diastolic blood pressure, hypertensive medication, eGFR, diabetes, current smoking, drinking, walking and calcium supplementation.

H^2_r : residual genetic heritability estimate after adjustment; ρ_G estimated genetic bivariate correlation.