SUPPLEMENTARY INFORMATION

Sex- and age-specific characteristics of body composition and its effect on bone mineral density in southern Chinese adults: a cross-sectional study

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Table S1. Pearson's correlation between study variables in males <50years

	Age	Height	Weight	BMI	WBLM	WBFM	Fat%	A/G FMR	ALM	WBBMD	LSBMD	FNBMD
Height	-.092*											
Weight	.161***	.460***										
BMI	.216***	.126***	.917***									
WBLM	.083*	.571***	.851***	.706***								
WBFM	.189***	.265***	.905***	.893***	.549***							
Fat%	.207***	.155***	.788***	.810***	.364***	.962***						
A/G FMR	.407***	.062	.594***	.641***	.363***	.656***	.667***					
ALM	.005	.555***	.822***	.681***	.950***	.541***	.372***	.308***				
WBBMD	.101**	.306***	.610***	.547***	.567***	.489***	.407***	.318***	.569***			
LSBMD	-.019	.245***	.358***	.294***	.355***	.258***	.203***	.096***	.375***	.741***		
FNBMD	-.127***	.274***	.394***	.314***	.423***	.266***	.182***	.089***	.438***	.718***	.662***	
THBMD	.017	.232***	.495***	.443***	.500***	.363***	.280***	.226***	.513***	.842***	.696***	.872***

Note. Results expressed as *r* coefficients. BMI, body mass index; WBLM, whole body lean mass; WBFM, whole body fat mass; Fat%, percentage of body fat mass; FM, fat mass; A/G FMR, android/gynoid fat mass ratio; ALM, appendicular lean mass; WBBMD, whole body bone mineral density; LSBMD, lumbar spine bone mineral density; FNBMD, femoral neck bone mineral density; THBMD, total hip bone mineral density.

*$P < 0.05$; **$P < 0.05$; ***$P < 0.001$.

Table S2. Pearson's correlation between study variables in males ≥50years

	Age	Height	Weight	BMI	WBLM	WBFM	Fat%	A/G FMR	ALM	WBBMD	LSBMD	FNBMD
Height	-.165***											
Weight	-.212***	.511***										
BMI	-.160***	.087***	.898***									
WBLM	-.355***	.581***	.835***	.671***								
WBFM	-.016	.287***	.860***	.850***	.438***							
Fat%	.089**	.125***	.668***	.717***	.162***	.941***						
A/G	.042	.028	.446***	.505***	.198***	.548***	.575***					
ALM	-.385	.546***	.807***	.658***	.945***	.442***	.191***	.164***				
WBBMD	-.180***	.307***	.545***	.479***	.501***	.395***	.280***	.193***	.499***			
LSBMD	-.035	.230***	.451***	.407***	.352***	.381***	.307***	.203***	.356***	.770***		
FNBMD	-.354***	.291***	.447***	.373***	.459***	.281***	.172***	.077***	.466***	.760***	.631***	
THBMD	-.267***	.235***	.473***	.433***	.456***	.323***	.221***	.134***	.471***	.847***	.702***	.913***

Note. Results expressed as *r* coefficients. BMI, body mass index; WBLM, whole body lean mass; WBFM, whole body fat mass; Fat%, percentage of body fat mass; FM, fat mass; A/G FMR, android/gynoid fat mass ratio; ALM, appendicular lean mass; WBBMD, whole body bone mineral density; LSBMD, lumbar spine bone mineral density; FNBMD, femoral neck bone mineral density; THBMD, total hip bone mineral density.

$^{*}P < 0.05$; $^{**}P < 0.05$; $^{***}P < 0.001$.

Table S3. Pearson's correlation between study variables in premenopausal females

	Age	Height	Weight	BMI	WBLM	WBFM	Fat%	A/G FMR	ALM	WBBMD	LSBMD	FNBMD
Height	-.031											
Weight	.222***	.424***										
BMI	.260***	.072***	.932***									
WBLM	.217*	.510***	.795***	.671**								
WBFM	.166***	.246***	.896***	.890***	.445***							
Fat%	.116***	.078***	.656***	.697***	.084***	.909***						
A/G	.261***	.002	.449***	.494***	.251***	.489***	.465***					
ALM	.153***	.519***	.769***	.640***	.947***	.444***	.111***	.181***				
WBBMD	.230**	.200***	.453***	.423***	.444***	.314***	.142***	.022	.434***			
LSBMD	.053*	.179***	.347***	.315***	.285***	.276***	.175***	.000	.299***	.775***		
FNBMD	.028	.181***	.316***	.281***	.309***	.218***	.095***	-.009	.323***	.704***	.661***	
THBMD	.126***	.111***	.361***	.358***	.355***	.249***	.112***	.043	.363***	.814***	.714***	.894***

Note. Results expressed as *r* coefficients. BMI, body mass index; WBLM, whole body lean mass; WBFM, whole body fat mass; Fat%, percentage of body fat mass; FM, fat mass; A/G FMR, android/gynoid fat mass ratio; ALM, appendicular lean mass; WBBMD, whole body bone mineral density; LSBMD, lumbar spine bone mineral density; FNBMD, femoral neck bone mineral density; THBMD, total hip bone mineral density.

$^{*}P < 0.05$; $^{**}P < 0.05$; $^{***}P < 0.001$.

Table S4. Pearson's correlation between study variables in postmenopausal females

	Age	Height	Weight	BMI	WBLM	WBFM	Fat%	A/G FMR	ALM	WBBMD	LSBMD	FNBMD
Height	-.285***											
Weight	-.129***	.452***										
BMI	-.011	.038	.905***									
WBLM	-.172***	.542***	.774***	.608***								
WBFM	-.050*	.273***	.909***	.889***	.442***							
Fat%	.022	.098***	.703***	.746***	.113***	.924***						
A/G	.204***	-.049*	.300***	.359***	.193***	.311***	.315***					
ALM	-.253***	.538***	.729***	.558***	.907***	.435***	.139***	.076***				
WBBMD	-.413***	.332***	.474***	.374***	.419***	.361***	.226***	-.075***	.436***			
LSBMD	-.281***	.299***	.421***	.330***	.345***	.339***	.236***	-.201	.354***	.824***		
FNBMD	-.501***	.336***	.375***	.260***	.344***	.275***	.168***	-.091***	.387***	.785***	.668***	
THBMD	-.442***	.277***	.423***	.344***	.370***	.327***	.218***	-.021	.408***	.839***	.720***	.912***

Note. Results expressed as *r* coefficients. BMI, body mass index; WBLM, whole body lean mass; WBFM, whole body fat mass; Fat%, percentage of body fat mass; FM, fat mass; A/G FMR, android/gynoid fat mass ratio; ALM, appendicular lean mass; WBBMD, whole body bone mineral density; LSBMD, lumbar spine bone mineral density; FNBMD, femoral neck bone mineral density; THBMD, total hip bone mineral density.

$^{*}P < 0.05$; $^{**}P < 0.05$; $^{***}P < 0.001$.