Supplementary Table 1. Mean and standard deviation (SD) for pQCT-derived and DXA-derived outcomes at 60-64 years by development of genitalia at 14.5 years. MEN

		Development of genitalia				
		Advanced	Early	Pre-adolescent	Total sample	p-value
	N	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
pQCT						
Distal CSA mm^2 (4%)	547	173 (34)	169.6 (33)	168 (37)	171 (34)	.2
Diaphysis CSA Mm^2 (50%)	547	157 (23)	152.5 (21)	151 (29)	154 (23)	.02
Medullary CSA Mm^2 (50%)	546	44 (14)	41.2 (12)	39 (16)	42 (14)	.009
Polar SSI mm^3 (50%)	543	353 (71)	342.5 (69)	331 (69)	348 (70)	.05
Total vBMD mg/cm^3 (4%)	547	392 (69)	388.7 (66)	403 (62)	391 (67)	.9
Trabecular vBMD mg/cm^3 (4%)	546	210 (42)	200.5 (40)	195 (43)	205 (41)	.004
Cortical vBMD mg/cm^3 (50%)	547	1156 (36)	1160.2 (33)	1175 (22)	1159 (35)	.02
DXA						
Lumbar spine aBMD g/cm^2	652	1.06 (0.18)	1.04 (0.17)	1.01 (0.17)	1.05 (0.18)	.2
Total hip aBMD g/cm^2	645	1.01 (0.15)	0.985 (0.14)	0.97 (0.17)	1.00 (0.14)	.02

*p-values from regression models with logged bone outcomes and including genitalia development as a continuous variable

Supplementary Table 2. Mean and standard deviation (SD) for pQCT-derived and DXA-derived outcomes at 60-64 years by broken voice at 14.5 years. MEN

		Broken voice				
		Completely broken	Starting to break	Not yet broken	Total sample	p-value
	N	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
pQCT						
Distal CSA mm^2 (4%)	544	174 (35)	171 (34)	168 (31)	171 (34)	.1
Diaphysis CSA Mm^2 (50%)	544	159 (23)	152 (21)	153 (23)	155 (23)	.007
Medullary CSA Mm^2 (50%)	543	45 (14)	41 (12)	42 (14)	43 (13)	.04
Polar SSI mm^3 (50%)	540	361 (75)	340 (63)	341 (70)	348 (70)	.005
Total vBMD mg/cm^3 (4%)	544	396 (70)	388 (67)	391 (65)	392 (67)	.5
Trabecular vBMD mg/cm^3 (4%)	543	212 (43)	205 (39)	198 (41)	206 (41)	.002
Cortical vBMD mg/cm^3 (50%)	544	1155 (37)	1160 (33)	1160 (33)	1159 (35)	.2
DXA						
Lumbar spine aBMD g/cm^2	649	1.07 (0.18)	1.05 (0.18)	1.02 (0.16)	1.05 (0.18)	.004
Total hip aBMD g/cm^2	642	1.02 (0.14)	0.99 (0.15)	0.98 (0.14)	1.00 (0.14)	.01

*p-values from regression models with logged bone outcomes and including voice broken as a continuous variable

Supplementary Table 3. Mean and standard deviation (SD) for pQCT-derived and DXA-derived outcomes at 60-64 years by development of pubic hair at 14.5 years. MEN

		Pubic hair				
		Profuse	Sparse	None	Total sample	p-value
		Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
pQCT						
Distal CSA mm^2 (4%)	545	172 (34)	171 (34)	167 (34)	171 (34)	.3
Diaphysis CSA Mm^2 (50%)	545	157 (23)	153 (22)	153 (21)	155 (23)	.08
Medullary CSA Mm^2 (50%)	544	44 (15)	41 (12)	42 (13)	43 (14)	.03
Polar SSI mm^3 (50%)	541	351 (72)	345 (69)	339 (67)	347 (70)	.1
Total vBMD mg/cm^3 (4%)	545	397 (68)	386 (65)	385 (72)	391 (67)	.08
Trabecular vBMD mg/cm^3 (4%)	544	212 (41)	201 (41)	194 (39)	205 (41)	<.001
Cortical vBMD mg/cm^3 (50%)	545	1155 (37)	1163 (33)	1159 (32)	1159 (35)	.1
DXA						
Lumbar spine aBMD g/cm^2	650	1.06 (0.18)	1.05 (0.18)	1.01 (0.17)	1.05 (0.18)	.04
Total hip aBMD g/cm^2	643	1.00 (0.14)	1.00 (0.15)	0.96 (0.14)	1.00 (0.14)	.05

*p-values from regression models with logged bone outcomes and including visible public hair as a continuous variable

Supplementary Table 4. Mean and standard deviation (SD) for pQCT-derived and DXA-derived outcomes at 60-64 years by development of axillary hair at 14.5 years. MEN

		Axillary hair?			
		Yes	No	Total sample	p-value
	N	Mean (SD)	Mean (SD)	Mean (SD)	
pQCT					
Distal CSA mm^2 (4%)	544	172 (36)	170 (32)	171 (34)	.4
Diaphysis CSA Mm^2 (50%)	544	155 (22)	152(23)	155 (23)	.02
Medullary CSA Mm^2 (50%)	543	44 (14)	42 (13)	43 (14)	.1
Polar SSI mm^3 (50%)	540	354 (70)	339 (70)	347 (70)	.02
Total vBMD mg/cm^3 (4%)	544	397 (68)	384 (65)	391 (67)	.02
Trabecular vBMD mg/cm^3 (4%)	543	212 (41)	197 (41)	205 (41)	<.001
Cortical vBMD mg/cm^3 (50%)	544	1157 (36)	116 (33)	1159 (35)	.1
DXA					
Lumbar spine aBMD g/cm^2	648	1.06 (0.18)	1.03 (0.17)	1.06 (0.18)	.006
Total hip aBMD g/cm^2	641	1.01 (0.14)	0.98 (0.15)	1.00 (0.15)	.02

*p-values from regression models with logged bone outcomes and including axillary hair as a dichotomous variable

Supplementary Table 5. Percentage difference in trabecular vBMD, total hip and lumbar spine aBMD by age at menarche in women with known age at period cessation, unadjusted and adjusting for body size, then smoking and adult SEP, and then age at period cessation.

	Unadjusted			Adjusted for height and weight			+ smoking and own SEP			+ age at period cessation		
	% diff	(95% CI)	P value	% diff	(95% CI)	P value	% diff	(95% CI)	P value	% diff	(95% CI)	P value
Trabecular vBMD (n=456)												
Age at menarche	-10.2	-19.7, -.70	.035	-6.2	-15.8, 0.3	.209	-6.1	-15.7, 0.4	.216	-6.0	-15.7, 0.4	.227
Total hip aBMD (n=566)												
Age at menarche	-9.2	-14.1, -4.1	<.001	-4.8	-9.2, -0.4	.033	-4.6	-9.1, -0.3	.037	-4.8	-9.2, -0.4	.033
Lumbar spine aBMD (n=566)												
Age at menarche	-8.9	-14.6, -3.1	.003	-6.1	-11.7, -0.5	.032	-6.0	-11.6, -0.4	.035	-6.3	-11.9, -0.7	.028