

TABLE E-1 Descriptive Statistics of Notched and Control Specimens (Mean \pm Standard Deviation)

Values	Notched	Control
Ward's BMD (gm/cm ²)	0.500 \pm 0.139	0.499 \pm 0.157
Distal BMD (gm/cm ²)	0.716 \pm 0.183	0.717 \pm 0.190
PMI-Anterior (m ⁴)	2.07E-14 \pm 1.57E-14	3.53E-14 \pm 2.97E-14
PMI-Posterior (m ⁴)	2.41E-14 \pm 2.12E-14	3.79E-14 \pm 3.92E-14
Anterior Cortical Thickness (mm)	1.81 \pm 0.561	1.59 \pm 0.453
Posterior Cortical Thickness (mm)	2.98 \pm 0.460	2.85 \pm 0.407
Singh Index	4.03 \pm 1.11	4.00 \pm 1.09
Fracture Pattern (Notch/Proximal)	13/0	0/13
Torsional Load to Failure (N-m)	98.9 \pm 53.7	143.9 \pm 70.6

BMD=Bone Mineral Density; PMI=Polar Moment of Inertia

TABLE E-2 Best single regression variables for prediction of femoral torsional load to failure

Measure	Notched	Control
Dual X-ray Absorptiometry		
Ward's BMD	r=0.651	r=0.803
	P=0.016	P<0.001
Distal BMD	r=0.847	r=0.759
	P<0.001	P=0.003
Geometric Measures by Computed Tomography		
Cortex-Anterior	r=0.483	r=0.661
	P=0.095	P=0.014
Cortex-Posterior	r=0.508	r=0.506
	P=0.076	P=0.078
PMI-Anterior	r=0.618	r=0.629
	P=0.025	P=0.021
PMI-Posterior	r=0.696	r=0.602
	P=0.008	P=0.030
Radiographic Evaluation		
Singh Index	r=0.385	r=0.697
	P=0.216	P=0.012

BMD = Bone Mineral Density; PMI = Polar Moment of Inertia