

**Table S1: Age distribution of Femoral Cortical Bone Samples**

Young Samples	Age	Aged Samples	Age
VIFM_022	22	VIFM_094	86
VIFM_117	23	VIFM_178	72
VIFM_126	21	VIFM_399	70
VIFM_189	20	VIFM_411	78
VIFM_406	20	VIFM_426	81
		VIFM_436	74

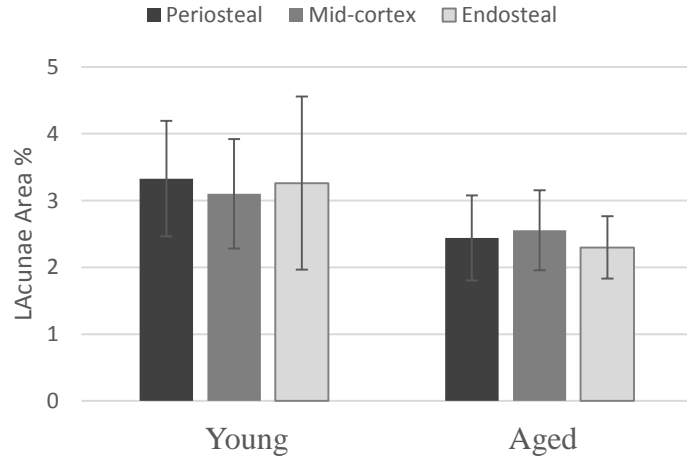
**Table S2: Influence of Different Thresholding Conditions on LCN and Canalicular Values**

	LCN Area %			Canalicular Area %		Canalicular Area %
	Ideal Thresholding	LCN Area % Less Bright	LCN Area % More Bright	Ideal Thresholding	Canalicular Area % Less Bright	More Bright
<b>Young</b>	17.6 ± 2.9	14.0 ± 2.5	22.9 ± 3.0	14.3 ± 1.9	11.1 ± 1.7	19.2 ± 2.0
<b>Aged</b>	10.5 ± 2.4	8.0 ± 2.3	14.9 ± 2.4	7.9 ± 2.0	5.7 ± 1.9	12.0 ± 2.0
<b>% Change w/age</b>	-40.6	-43.0	-35.1	-44.6	-48.4	-37.6
<b>p=</b>	0.001	0.002	0.0007	0.001	0.002	0.0005

**Figure S1. Regional characteristics of lacunar[HYPHEN]canalicular porosity across the femoral cortex.** Intra-cortical regional differences in (A) lacunar area percentage, (B) canalicular area percentage and (C) lacunar density. Error bars represent SD.

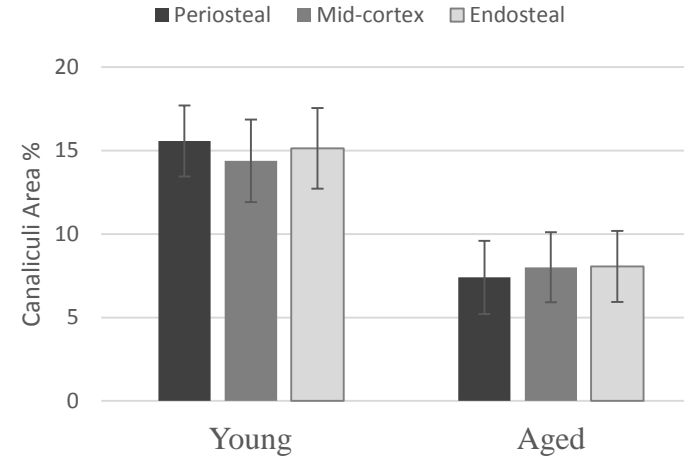
**A**

**(Lacunae Area % Changes by Cortical Segment)**



**B**

**(Canaliculi Area % Changes by Cortical Segment)**



**C**

**(Lacunae#/mm<sup>2</sup> Changes by Cortical Segment)**

