Table 1
Measured osteocyte network quantities used in calculations (human unless otherwise indicated).

Description (abbreviation)	Value	Origin
Skeletal bone volume (BV)	1.75×10^6 mm^3	[25; Table 1, Sec II.A.3]
Osteocyte lacuna density (N.Lc/BV)	20,000–30,000 mm^{-3}	[25,31–33]
Fraction of lacunae with live osteocyte (N.Ot/N.Lc)	0.95	[25,28]
Fraction of bone formed per day (remodelling rate, Rem.R)	7.6%/year 364.384 mm^3/day	[25]
Number of dendritic process per osteocyte (N.DP/Ot)	89	[24]
Radius of a canaliculus (Ca.Rd)	157.5 nm	129.5 nm (murine) [36]; 157.5 nm (human) [24]
Radius of a dendritic process (DP.Rd)	73 nm	50.2 nm (murine) [36]; 73 nm (human, calculated such that DP cross-section occupies 16% of canaliculus cross-section)
Pericellular/perilacunar gap (g)	0.6 μm	0.5–1 μm [37], 0.6 μm [22]
Dendritic length density (Tt.DP.L/BV)	0.1 μm/μm^3	0.26 μm/μm^3 (chick calvaria) [18], 0.1 μm/μm^3 (based on Appendix A/text and data from [22])
Lacuna volume (Lc.V)	400 μm^3	[31,33]
Lacuna surface area (Lc.S)	336.2 μm^2	[31]
Canalicular network mean node degree ($k + 1$)	3.25	(ovine) [22]
Canalicular network mean link length (l)	2.15 μm	(ovine) [22]
Lacuna area control mice (2D section)	38 μm^2	(murine) [56]
Lacuna area lactating mice (2D section)	46 μm^2	(murine) [56]
Increase in canaliculus radius in lactating mice	0.05 μm	(murine) [56]

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