

Table S9. Material properties used in sensitivity test 7. HU, Hounsfield Units; E, elastic (Young’s) modulus; ν , Poisson ratio. Material properties of bone were derived from the regression equation of Schneider et al. (1996): Density (g/cm^3) = $0.0007 \cdot \text{HU} + 0.3489$, $R^2 = 0.9994$, and modulus values were calculated from the regression equation of Rho et al. (1995) as $E \text{ (GPa)} = 5.05 \cdot \rho^{1.269}$ for $\rho < 1 \text{ g/cm}^3$ and $E \text{ (GPa)} = 9.11 \cdot \rho^{1.326}$ for $\rho > 1 \text{ g/cm}^3$. The lowest density material was arbitrarily assigned $\rho=0.01 \text{ g/cm}^3$ as a low-end value.

Mean HU	10 properties		8 properties		6 properties		4 properties		3 properties		1 property	
	Density (g/cm^3)	E (GPa)	Density (g/cm^3)	E (GPa)	Density (g/cm^3)	E (GPa)	Density (g/cm^3)	E (GPa)	ν	E (GPa)	ν	E (GPa)
-820.75	0.01	0.01	0.03	0.08	0.03	0.08	0.26	1.07	0.30	20.00	0.30	20.00
-413.75	0.06	0.14	0.03	0.08	0.03	0.08	0.26	1.07	0.30	20.00	0.30	20.00
-6.75	0.34	1.30	0.49	2.05	0.49	2.05	0.26	1.07	0.30	20.00	0.30	20.00
400.25	0.63	2.80	0.49	2.05	0.49	2.05	0.26	1.07	0.30	20.00	0.30	20.00
807.25	0.91	4.51	0.91	4.51	1.06	8.05	1.34	12.71	0.30	20.00	0.30	20.00
1214.25	1.20	11.59	1.20	11.59	1.06	8.05	1.34	12.71	0.30	20.00	0.30	20.00
1621.25	1.48	15.37	1.48	15.37	1.63	17.38	1.34	12.71	0.30	20.00	0.30	20.00
2026.5	1.77	19.39	1.77	19.39	1.63	17.38	1.34	12.71	0.30	20.00	0.30	20.00
Dentine	($\nu = 0.18$)	18.80	($\nu = 0.18$)	18.80	($\nu = 0.18$)	18.80	($\nu = 0.18$)	18.80	0.18	18.80	0.30	20.00
Enamel	($\nu = 0.30$)	80.10	($\nu = 0.30$)	80.10	($\nu = 0.30$)	80.10	($\nu = 0.30$)	80.10	0.30	80.10	0.30	20.00