

Table S1: Comparison of model size, FEA computation time and model generation time between PR model and voxel model.

	PT		FN		GT		Pooled	
	Voxel model	PR model	Voxel model	PR model	Voxel model	PR model	Voxel model	PR model
# Element	1,822,600 ± 509,703	26,219 ± 6,704	3,257,231 ± 1,777,522	51,114 ± 16,888	3,182,186 ± 2,440,628	22,975 ± 8,647	2,728,837 ± 1,847,899	32,999 ± 16,788
CPU Time for nonlinear FEA (Minutes)	2,546.99 ± 622.60	11.39 ± 10.10	4,990.58 ± 4,290.19	16.11 ± 18.57	3,825.85 ± 2,374.51	7.46 ± 4.64	3,744.94 ± 2,923.14	11.57 ± 12.59
Model Generation Time (Minutes)	0.5 ± 0.2	5.29 ± 1.11	1.0 ± 0.6	6.35 ± 1.29	0.4 ± 0.15	6.00 ± 1.29	0.6 ± 0.3	5.87 ± 1.29