

Bone & Joint Research

Supplementary Material

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Table i. Material properties of the anatomical elements used to reconstruct the finite element model of the spine unit.

Component	Young's modulus, MPa	Poisson's ratio	Density, kg/mm ³	Cross-section, mm ²
Cortical bone	12,000	0.3	1.83e-6	-
Cancellous bone	100	0.3	1.00e-6	-
Posterior elements	3,500	0.3	1.83e-6	-
Annulus fibrosus	175	0.3	1.20e-6	-
Nucleus pulposus	0.2	0.49	1.36e-6	-
Facet	10.4	0.4	1.83e-6	-
ALL	7.8	0.3	-	63.7
PLL	10	0.3	-	20
LF	15	0.3	-	40
ISL	10	0.3	-	40
SSL	8	0.3	-	30

ALL, anterior longitudinal ligament; ISL, interspinous ligament; LF, ligamentum flavum; PLL, posterior longitudinal ligament; SSL, supraspinous ligament.