

Supplementary figures and tables

Figure legend

Range of motion (ROM) for intact lumbar spine (INT) and Dynesys models at the index L4-L5 level and the supra-adjacent L3-L4 level for three screw lengths: long screw (LS, 45 mm), median screw (MS, 36 mm) and short screw (SS, 27 mm).

(a) Index L4-L5 level.

(b) Supra-adjacent L3-L4 level.

Supplement table

Table. Intervertebral range of motion (ROM) for the INT, LS, MS and SS models

	Model	ROM (deg)				Five-level total
		L1-L2	L2-L3	L3-L4	L4-L5	lumbar ROM (deg)
Flexion						
	INT	5.01	4.75	4.62	6.09	20.47
	LS	6.13	6.1	6.04	1.45	19.72
	MS	6.12	6.08	6.03	1.61	19.84
	SS	6.12	6.07	6.01	1.64	19.84

Supplementary table

Extension						
	INT	3.58	3.08	3.12	3.3	13.07
	LS	3.87	3.42	3.58	2.22	13.09
	MS	3.87	3.42	3.54	2.2	13.02
	SS	3.87	3.42	3.56	2.29	13.13
Rotation						
	INT	1.53	1.72	2.05	2.91	8.22
	LS	1.70	1.93	2.30	2.28	8.21
	MS	1.70	1.93	2.31	2.21	8.16
	SS	1.70	1.93	2.32	2.20	8.15
Lateral bending						
	INT	7.09	4.63	4.32	4.19	20.24
	LS	8.05	5.37	5.04	1.88	20.35
	MS	8.00	5.35	5.02	1.74	20.12
	SS	8.06	5.38	5.05	1.84	20.32

INT: intact lumbar spine model; LS: normal screw model (45 mm); MS: median screw model (36.8 mm); SS: short screw model (27 mm).

