

## Supplementary Appendix

### Grouping of variables in blocks

To improve interpretability all selected independent variables were grouped into blocks with variables of similar construct prior to backward elimination regression analysis.

<b>Table S1. Grouping of variables in blocks</b>	
<b>Block</b>	<b>Variables</b>
Person characteristics	Age Sex BMI
Previous surgery	Previous meniscus surgery on index knee
Meniscal pathology	Medial or lateral tear Radial location of tear Circumferential location of tear Tear type Length of tear Tear depth Quality of tissue
Cartilage pathology	Medial compartment cartilage grade Lateral compartment cartilage grade Patellofemoral compartment cartilage grade
Other findings during arthroscopic surgery	Synovitis ACL rupture Plica Knee joint laxity

## Exclusion of patients with missing data

48 patients had missing values for one or more variables. The difference between this group of patients and the remaining group of patients with complete data sets (n=443) was examined (see table below). There was no significant difference in any of the variables.

**Table S2. Test for difference between patients with and without missing data**

Variables	Full data set group n = 443		Missing values group n = 48			p-value
		Range		Range	Missing values	
Age, years (SD)	49.7 (12.8)	18-76	50.6 (13.3)	21-76	0	0.653a
Sex, female, no. (%)	195 (44.0)		24 (50.0)		0	0.428b
Height, cm (SD)	174.9 (9.5)	152-201	174.2 (8.5)	155-191	0	0.625a
Weight, kg (SD)	83.7 (15.6)	48-149	81.5 (17.3)	55-138	0	0.366a
BMI, kg/m <sup>2</sup> (SD)	27.3 (4.3)	19.5-47.2	26.8 (5.0)	19.5-40.8	0	0.453a
KOOS (SD)						
Pain	54.5 (18.7)	0-97.2	54.6 (21.3)	13.9-100	0	0.970a
Sport and recreation	25.8 (21.5)	0-100	28.5 (25.8)	0-90	0	0.412a
ADL	63.5 (19.5)	2.9-100	61.9 (23.3)	11.8-100	0	0.595a
Previous meniscus surgery on index knee, no. (%)	79 (17.8)		12 (25.5)		1	0.197b
Tear location					0	0.622c
Medial	329 (74.3)		33 (68.8)			
Lateral	74 (16.7)		10 (20.8)			
Both	40 (9.0)		5 (10.4)			
Tear pattern, no. (%)					3	0.763c
Longitudinal-vertical (bucket handle)	84 (19.0)		5 (11.1)			
Horizontal	32 (7.2)		3 (6.7)			
Radial	29 (6.6)		4 (8.9)			
Vertical flap	105 (23.7)		10 (22.2)			
Horizontal flap	24 (5.4)		2 (4.4)			
Complex	118 (26.6)		17 (37.8)			
Root tear	2 (0.5)		0 (0.0)			
More than one tear type	49 (11.1)		4 (8.9)			
Tissue quality, no. (%)					5	0.071c
Non-degenerative	168 (37.9)		10 (23.3)			
Degenerative	261 (58.9)		30 (69.8)			
Undetermined	14 (3.2)		3 (7.0)			
Tear length, mm (SD)	16.9 (8.7)	2-50	14.6 (5.4)	5-25	16	0.142a
Tear depth, no. (%)					10	0.114b
Partial	164 (37.0)		19 (50.0)			
Complete	279 (63.0)		19 (50.0)			
Radial location, no. (%)					2	0.446c
Posterior	288 (65.0)		30 (65.2)			
Mid body	44 (9.9)		2 (4.4)			
Posterior + mid body	73 (16.5)		7 (15.2)			
Anterior	15 (3.4)		3 (6.5)			
Anterior + mid body	4 (0.9)		1 (2.2)			
Posterior + anterior	1 (0.2)		0 (0.0)			
All	18 (4.1)		3 (6.5)			
Circumferential location, no. (%)					9	0.575c
Zone 1	139 (31.4)		12 (30.8)			
Zone 2	230 (51.9)		18 (46.2)			
Zone 3	74 (16.7)		9 (23.1)			
Medial cartilage grade, no. (%)					2	0.828c
Grade 0	111 (25.1)		11 (23.9)			
Grade 1	107 (24.2)		11 (23.9)			
Grade 2	89 (20.1)		7 (15.2)			
Grade 3	101 (22.8)		14 (30.4)			
Grade 4	35 (7.9)		3 (6.5)			
Lateral cartilage grade, no. (%)					8	0.501c
Grade 0	166 (37.5)		18 (45.0)			
Grade 1	153 (34.5)		11 (27.5)			
Grade 2	78 (17.6)		5 (12.5)			
Grade 3	35 (7.9)		4 (10.0)			

Grade 4	11 (2.5)	2 (5.0)		
Patellofemoral cartilage grade, no. (%)			8	0.498c
Grade 0	155 (35.0)	11 (27.5)		
Grade 1	114 (25.7)	8 (20.0)		
Grade 2	77 (17.4)	10 (25.0)		
Grade 3	70 (15.8)	9 (22.5)		
Grade 4	27 (6.1)	2 (5.0)		
Plica, no. (%)	165 (37.3)	10 (25.0)	8	0.123b
Synovitis, no. (%)			0	0.581c
None	247 (55.8)	27 (56.3)		
Irritation/redness	37 (8.4)	2 (4.2)		
Light synovitis	100 (22.6)	10 (20.8)		
Moderate synovitis	41 (9.3)	5 (10.4)		
Severe synovitis	18 (4.1)	4 (8.3)		
Anterior cruciate ligament, no. (%)			2	1.000c
Intact	394 (88.9)	42 (91.3)		
Partial rupture (non-reconstructed)	17 (3.8)	1 (2.2)		
Total rupture (non-reconstructed)	32 (7.2)	3 (6.5)		
Knee joint laxity, no. (%)			5	0.800c
None	384 (86.7)	37 (86.1)		
Light/slight	44 (9.9)	4 (9.3)		
Pronounced	15 (3.4)	2 (4.7)		

Continuous variables are reported as means  $\pm$  SD and categorical variables as frequencies and percentages.

Tests for significance of difference between full data set group and missing values group by: **a** Students unpaired t-test, **b** Pearson  $\chi^2$ , **c** Fischer's exact  
Percentages may not add up to 100% due to rounding.