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Appendix Table 1. Frequency of final preoperative (N=704) and intraoperative (N=48) exclusion criteria.

Exclusion Criteria	N (% of total) ^A
<i>Patients excluded preoperatively (N=704)</i>	
Worker's compensation claim	195 (27.7)
Previous surgery on operative knee	188 (26.7)
Significant ligamentous instability in the operative knee ^B	165 (23.4)
Tibiofemoral joint space loss > 50% compared to non-operative knee	91 (12.9)
Visible osteophytes of medial or lateral compartment of the knee	39 (5.5)
Root avulsion on MRI	36 (5.1)
Intra-articular corticosteroid injections or viscosupplementation in the operative knee within 3 months of screening ^C	32 (4.6)
Inflammatory joint disease, chondrocalcinosis, or gout in the affected knee ^D	27 (3.8)
Large chondral flaps judged to be impending loose bodies on MRI	26 (3.7)
Previous major trauma to the operative knee ^E	9 (1.3)
Osteochondritis dissecans	8 (1.1)
Other comorbid medical conditions	6 (0.9)
Grade IV chondromalacia > 4 cm ² on MRI ^C	3 (0.4)
<i>Patients excluded intraoperatively (N=48)</i>	
Large chondral flaps judged to be impending loose bodies	17 (35.4)
No meniscus tear	11 (22.9)
Grade IV chondromalacia > 4 cm ² ^F	10 (20.8)
Root avulsion	9 (18.8)
Undergoing meniscal repair	3 (6.3)
Undergoing microfracture	1 (2.1)

Anterior cruciate ligament tear	1 (2.1)
Inflammatory arthritis	1 (2.1)
Traumatic arthropathy of the medial femoral condyle requiring abrasion arthroplasty	1 (2.1)

MRI, magnetic resonance imaging

^A Data are not mutually exclusive.

^B Significant ligamentous instability was defined as a history of partial or complete anterior cruciate ligament or posterior cruciate ligament tear, or history of grade 2 or greater medial collateral ligament and/or lateral collateral ligament injury.

^C This criterion was removed from the exclusion list six months into the study when it was decided that patients who had injections in their operative knee within the past 3 months would be included in the study to improve enrollment.

^D Chondrocalcinosis was diagnosed based on radiographic evidence of meniscal calcification.

^E Trauma was defined as history of prior fracture involving the tibial plateau, patella or distal femur.

^F The Outerbridge classification was used for grading chondral lesions.

Appendix Table 2. Arthroscopic Findings for the Chondral Debridement (CL-Deb) versus No Chondral Debridement (CL-noDeb) Groups that Completed 5-year Follow-up for the ChAMP Trial, N=148

Arthroscopic Findings	CL-Deb N=77		CL-noDeb N=71		P-value ^a
	N Missing	N (%)	N Missing	N (%)	
Medial Meniscus					
Tear Present	0	68 (88.3)	0	67 (94.4)	0.25
Zones of medial meniscus tear ^b	0		0		
<i>Posterior horn</i>		63 (81.8)		64 (90.1)	0.15
<i>Middle 1/3</i>		53 (68.8)		52 (73.2)	0.56
<i>Anterior horn</i>		2 (2.6)		5 (7.0)	0.26
<i>Meniscal capsular junction</i>		13 (16.9)		10 (14.1)	0.64
<i>Outer 1/3</i>		26 (33.8)		28 (39.4)	0.47
<i>Middle 1/3</i>		63 (81.8)		63 (88.7)	0.24
<i>Central rim</i>		53 (68.8)		43 (60.6)	0.29
Type of medial meniscus tear	0		1		
<i>Longitudinal</i>		2 (2.9)		0 (0.0)	0.50

<i>Radial</i>		16 (23.5)		23 (34.3)	0.17
<i>Horizontal</i>		5 (7.4)		6 (9.0)	0.74
<i>Bucket</i>		2 (2.9)		2 (3.0)	1.00
<i>Complex</i>		53 (77.9)		48 (71.6)	0.40
<i>Other</i>		3 (4.4)		4 (6.0)	0.72
Lateral Meniscus					
Tear Present	0	26 (33.8)	0	17 (23.9)	0.19
Zones of lateral meniscus tear ^b	0		0		
<i>Anterior horn</i>		6 (7.8)		7 (9.9)	0.66
<i>Middle 1/3</i>		20 (26.0)		12 (16.9)	0.18
<i>Posterior horn</i>		14 (18.2)		7 (9.9)	0.15
<i>Meniscal capsular junction</i>		6 (7.8)		0 (0.0)	0.03
<i>Outer 1/3</i>		8 (10.4)		3 (4.2)	0.21
<i>Middle 1/3</i>		12 (15.6)		10 (14.1)	0.80
<i>Central rim</i>		23 (29.9)		16 (22.5)	0.31
Type of lateral meniscus tear	0		0		
<i>Longitudinal</i>		1 (3.9)		0 (0.0)	1.00
<i>Radial</i>		4 (15.4)		3 (17.7)	1.00
<i>Horizontal</i>		1 (3.9)		2 (11.8)	0.55
<i>Bucket</i>		1 (3.9)		1 (5.9)	1.00
<i>Complex</i>		15 (57.7)		10 (58.8)	1.00
<i>Other</i>		6 (23.1)		3 (17.7)	1.00
Tibia					
Chondral lesion present	0	44 (57.1)	0	34 (47.9)	0.26
Site of chondral lesion	1		0		0.40
<i>Lateral only</i>		16 (37.2)		14 (41.2)	

<i>Medial only</i>		21 (48.8)		11 (32.4)	
<i>Lateral and medial</i>		6 (14.0)		9 (26.5)	

Tibia (continued)					
Grade of lateral chondral lesion ^c	0		0		0.21
<i>I</i>		7 (31.8)		3 (13.0)	
<i>I-II</i>		1 (4.6)		0 (0.0)	
<i>II</i>		7 (31.8)		13 (54.2)	
<i>II-III</i>		0 (0.0)		0 (0.0)	
<i>III</i>		6 (27.3)		7 (29.2)	
<i>III-IV</i>		0 (0.0)		0 (0.0)	
<i>IV</i>		1 (4.6)		1 (4.2)	
Grade of medial chondral lesion	0		0		0.02
<i>I</i>		0 (0.0)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		11 (40.7)		2 (10.0)	
<i>II-III</i>		0 (0.0)		0 (0.0)	
<i>III</i>		12 (44.4)		17 (85.0)	
<i>III-IV</i>		2 (7.4)		0 (0.0)	
<i>IV</i>		2 (7.4)		1 (5.0)	
Femur					
Chondral lesion present	0	57 (74.0)	0	52 (73.2)	0.91
Site of chondral lesions	0		0		0.32
<i>Lateral only</i>		4 (7.0)		2 (3.9)	
<i>Medial only</i>		45 (79.0)		37 (71.2)	
<i>Lateral and medial</i>		8 (14.0)		13 (25.0)	

Grade of lateral chondral lesions ^d	0		0		0.37
<i>I</i>		0 (0.0)		2 (12.5)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		2 (16.7)		4 (25.0)	
<i>II-III</i>		1 (8.3)		1 (6.3)	
<i>III</i>		8 (66.7)		4 (25.0)	
<i>III-IV</i>		0 (0.0)		1 (6.3)	
<i>IV</i>		1 (8.3)		4 (25.0)	
Grade of medial chondral lesions	0		0		0.57
<i>I</i>		0 (0.)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		10 (18.9)		7 (14.0)	
<i>II-III</i>		1 (1.9)		3 (6.0)	
<i>III</i>		38 (71.7)		38 (76.0)	
<i>III-IV</i>		2 (3.8)		2 (4.0)	
<i>IV</i>		2 (3.8)		0 (0.0)	

Patella					
Chondral lesion present	0	53 (68.8)	0	59 (83.1)	0.04
Site of chondral lesions	0		1		0.49
<i>Lateral only</i>		2 (3.8)		1 (1.7)	
<i>Medial only</i>		8 (15.1)		6 (10.3)	
<i>Lateral and medial</i>		1 (1.9)		2 (3.5)	
<i>Central only</i>		23 (43.4)		22 (37.9)	
<i>Lateral and central</i>		2 (3.8)		5 (8.6)	

<i>Medial and central</i>		4 (7.6)		11 (19.0)	
<i>Lateral, medial and central</i>		13 (24.5)		11 (19.0)	
Grade of lateral chondral lesions	1		0		0.72
<i>I</i>		0 (0.0)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		2 (11.8)		3 (15.8)	
<i>II-III</i>		0 (0.0)		0 (0.0)	
<i>III</i>		12 (70.6)		15 (79.0)	
<i>III-IV</i>		1 (5.9)		0 (0.0)	
<i>IV</i>		2 (11.8)		1 (5.3)	
Grade of medial chondral lesions	1		0		0.11
<i>I</i>		1 (4.0)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		4 (16.0)		7 (22.6)	
<i>II-III</i>		0 (0.0)		2 (6.5)	
<i>III</i>		16 (64.0)		22 (71.0)	
<i>III-IV</i>		1 (4.0)		0 (0.0)	
<i>IV</i>		3 (12.0)		0 (0.0)	
Grade of central chondral lesions ^e	0		2		0.07
<i>I</i>		3 (7.1)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		13 (31.0)		11 (22.9)	
<i>II-III</i>		0 (0.0)		1 (2.1)	
<i>III</i>		25 (59.5)		36 (75.0)	

<i>III-IV</i>		1 (2.4)		0 (0.0)	
<i>IV</i>		0 (0.0)		0 (0.0)	
Trochlea					
Chondral lesion present	0	38 (52.0)	0	39 (54.9)	0.50
Site of chondral lesions	4		0		0.66
<i>Lateral only</i>		2 (5.9)		0 (0.0)	
<i>Medial only</i>		4 (11.8)		3 (7.7)	
<i>Lateral and medial</i>		0 (0.0)		0 (0.0)	
<i>Central only</i>		20 (58.8)		28 (71.8)	
<i>Lateral and central</i>		1 (2.9)		2 (5.1)	
<i>Medial and central</i>		2 (5.9)		1 (2.6)	
<i>Lateral, medial and central</i>		5 (14.7)		5 (12.8)	

Trochlea (continued)					
Grade of lateral chondral lesions	0		0		0.04
<i>I</i>		0 (0.0)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	
<i>II</i>		0 (0.0)		0 (0.0)	
<i>II-III</i>		0 (0.0)		2 (28.6)	
<i>III</i>		4 (50.0)		4 (57.1)	
<i>III-IV</i>		1 (12.5)		0 (0.0)	
<i>IV</i>		3 (37.5)		1 (14.3)	
Grade of medial chondral lesions	0		0		0.70
<i>I</i>		0 (0.0)		0 (0.0)	
<i>I-II</i>		0 (0.0)		0 (0.0)	

<i>II</i>		2 (18.2)		1 (11.1)	
<i>II-III</i>		0 (0.0)		1 (11.1)	
<i>III</i>		6 (54.6)		5 (55.6)	
<i>III-IV</i>		2 (18.2)		0 (0.0)	
<i>IV</i>		1 (9.1)		2 (22.2)	
Grade of central chondral lesions	0		0		0.81
<i>I</i>		2 (7.1)		1 (2.8)	
<i>I-II</i>		0 (0.0)		1 (2.8)	
<i>II</i>		4 (14.3)		4 (11.1)	
<i>II-III</i>		0 (0.0)		1 (2.8)	
<i>III</i>		20 (71.4)		23 (63.9)	
<i>III-IV</i>		2 (7.1)		4 (11.1)	
<i>IV</i>		0 (0.0)		2 (5.6)	

^aP-values were obtained from Chi-square or Fisher's Exact test.

^bCategories are not mutually exclusive.

^cCategories are not mutually exclusive. One patient had 2 chondral lesions on the lateral aspect of the tibia which were counted as separate lesions; one lesion was grade III and the other was grade IV.

^dCategories are not mutually exclusive. One patient had 2 chondral lesions on the lateral aspect of the tibia which were counted as separate lesions and both were grade IV.

^eCategories are not mutually exclusive. One patient had 2 chondral lesions on the central aspect of the patella which were counted as separate lesions and both were grade II.

Appendix Table 3. Inter-rater reliability of radiographic measures of joint space narrowing

Radiographic Measure	Preoperative Intra-class Correlation Coefficient	5-year Intra- class Correlation Coefficient
Medial Patellofemoral (mm)		
Affected knee	0.93	0.88
Contralateral knee	0.96	0.85
Central Patellofemoral (mm)		
Affected knee	0.90	0.85
Contralateral knee	0.93	0.81
Lateral Patellofemoral (mm)		
Affected knee	0.85	0.84
Contralateral knee	0.88	0.89
Medial Tibiofemoral AP (mm)		
Affected knee	0.79	0.79
Contralateral knee	0.77	0.77
Lateral Tibiofemoral AP (mm)		
Affected knee	0.67	0.67
Contralateral knee	0.68	0.67
Medial Tibiofemoral PA flexion (mm)		
Affected knee	0.44	0.70
Contralateral knee	0.33	1.00

Lateral Tibiofemoral PA flexion (mm)		
Affected knee	0.66	0.71
Contralateral knee	0.68	--*

*Not calculable due to too much missing data.