

## Supplementary article data

# Articular cartilage of the knee 3 years after ACL reconstruction

## A quantitative T2 relaxometry analysis of 10 knees

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Table 3. Mean T2 values for the superficial zones of the articular cartilage of the contralateral healthy knees and the ACL-reconstructed knees at 3-year follow-up. Values are mean [SD] (95% CI)

	Contralateral knees	ACLR knees	%Diff	p-value
FM2	55 [4] (45–57)	61 [16] (52–71)	12	0.2
FM3	57 [5] (51–60)	67 [9] (62–73)	19	0.002
FM4	56 [5] (47–59)	59 [14] (51–68)	6	0.4
FM5	57 [3] (53–58)	57 [5] (54–60)	16	0.3
TM1	48 [3] (46–50)	51 [3] (50–53)	6	0.005
TM2	54 [6] (50–57)	58 [7] (53–62)	7	0.1
TM3	53 [5] (49–56)	54 [6] (50–57)	2	0.2
FL1	56 [5] (51–60)	56 [9] (51–62)	1	0.2
FL2	47 [3] (41–49)	52 [10] (45–58)	10	0.6
FL3	56 [5] (48–60)	58 [14] (49–66)	2	0.3
FL4	59 [8] (56–63)	58 [4] (56–61)	-1	0.9
FL5	54 [3] (51–55)	54 [4] (52–57)	1	0.2
TL1	51 [5] (47–54)	50 [6] (46–53)	-2	0.5
TL2	51 [4] (47–53)	53 [6] (50–57)	6	0.5
TL3	56 [7] (47–60)	57 [10] (51–63)	2	0.7

%Diff: % of increase or decrease in T2 values in ACL-reconstructed knees compared to T2 values in contralateral healthy knees  
 ACLR: ACL-reconstructed; FM: medial femoral condyle; FL: lateral femoral condyle; TM: medial tibial plateau; TL: lateral tibial plateau.  
 FM1 or FL1 = cartilage over anterior to anterior meniscus horn; FM2 or FL2 = cartilage over anterior meniscus horn; FM3 or FL3 = cartilage between anterior and posterior meniscus horn; FM4 or FL4 = cartilage over posterior meniscus horn; FM5 or FL5 = cartilage behind posterior meniscus horn. TM1 or TL1 = cartilage under anterior meniscus horn; TM2 or TL2 = cartilage between anterior and posterior meniscus horn; TM3 or TL3 = cartilage under posterior horn.

**Table 2. Increases in T2 values (ms, %) in the superficial and deep zones of different cartilage regions of ACL-reconstructed knees compared to the contralateral side at 3-year follow-up**

Patient No.	Superficial Zone	Deep Zone
1	FM3 (3.7 ms, 8%), TM1 (8.1 ms, 16%), TM2 (3.8 ms, 7%), FL1 (7.4 ms, 13%), FL2 (19.4 ms, 41%), TL1 (2.1 ms, 4%)	FM2 (1.9 ms, 5.1%), FL1 (3.8 ms, 7%), FL2 (3.1 ms, 7%), TL2 (20.1 ms, 34%), TL3 (5.6 ms, 11%)
2	FM3 (8.2 ms, 16%), FM5 (4.1 ms, 8%), TM1 (2.0 ms, 4%), TM2 (8.7 ms, 19%), TM3 (2.4 ms, 5%), TL2 (1.5 ms, 3%)	FM4 (12.2 ms, 29%), FM5 (4.8 ms, 10%), TM1 (4.6 ms, 11%), TM3 (5.6 ms, 12%), FL1 (2.2 ms, 5%), TL1 (4.6 ms, 11%), TL2 (4.8 ms, 10%), TL3 (1.9 ms, 4%)
3	FM2 (3.8 ms, 7%), FM3 (14.1 ms, 25%), FM4 (24.1 ms, 45%) FM5 (6.3 ms, 11%), TM2 (12.8 ms, 22%), FL3 (16.6 ms, 32%), TL3 (15.4 ms, 31%)	FM4 (4.0 ms, 8%), FM5 (5.5 ms, 11%), TM1 (4.8 ms, 10%), TM3 (7.4 ms, 15%)
4	FM3 (20.3 ms, 37%), FM4 (2.7 ms, 5%), TM1 (5.2 ms, 12%), TM2 (10.9 ms, 24%), TM3 (4.3 ms, 9%), FL1(1.8 ms, 4%), FL3 (8.3 ms, 18%), FL4 (15.9 ms, 30%), FL5 (2.8 ms, 5%), TL1 (4.6 ms, 11%), TL2 (10.1 ms, 22%), TL3 (2.3 ms, 4%)	FM4 (1.7 ms, 4%), FL1 (3.5 ms, 8%), FL3 (4.6 ms, 11%), FL4 (5.8 ms, 12%), FL5 (1.9 ms, 4%), TL1 (3.2 ms, 7%), TL2 (7.5 ms, 16%)
5	FM2 (42.9 ms, 81%), FM3 (21.8 ms, 37%), FM4 (3.0 ms, 5%), TM1 (3.9 ms, 8%), TM2 (6.4 ms, 11%), TM3 (4.7ms, 10%), FL2 (26.3 ms, 55%), FL3 (5.0ms, 9%), FL4 (2.2 ms, 4%), TL1 (4.3ms, 9%), TL3 (4.5 ms, 7%)	FM2 (15.9 ms, 33%), FM3 (7.9 ms, 19%), FM4 (6.7 ms, 13%), TM1 (6.6 ms, 17%), TM3 (6.6 ms, 15%), FL1 (2.3 ms, 5%), FL3 (4.7 ms, 10%), FL4 (3.7 ms, 7%), TL3 (6.9 ms, 14%)
6	FM2 (12.5 ms, 24%), FM3 (1.9 ms, 3%), TM1 (2.3 ms, 5%), TM2 (4.1 ms, 8%), FL2 (5.2 ms, 11%), FL5 (2.6 ms, 5%)	FM2 (2.5 ms, 5%), FL5 (3.8ms, 8%), TL3 (2.4 ms, 5%)
7	FM3 (16.5 ms, 31%), FM4 (6.7 ms, 13%), TM1 (1.8 ms, 4%), FL3 (13.4 ms, 25%), TL3 (2.6 ms, 5%)	FM4 (6.5 ms, 15%), TM1 (7.8ms,18%), TM3 (10.9 ms, 27%)
8	FM3 (3.7 ms, 8%), TM1 (8.1 ms, 16%), TM2 (3.8 ms, 7%), FL1 (7.4 ms, 13%), FL2 (19.3 ms, 41%), TL1 (2.2 ms, 4%)	FM2 (2.0 ms, 5%), FL1 (3.8 ms, 7%), FL2 (3.1 ms, 7%), TL2 (20.1 ms, 34%), TL3 (5.6 ms, 11%)
9	FM3 (2.6 ms, 5%), TM2 (4.2 ms, 9%), FL4 (2.5 ms, 5%), TL2 (14.8 ms, 31%),	FL4 (4.9 ms, 10%), FL5 (2.4 ms, 5%), TL1 (6.8 ms, 14%), TL2 (12.6 ms, 26%), TL3 (4.9 ms, 10%)
10	FM2 (10.7 ms, 18%), FM3 (14.1 ms, 23%), FM4 (25.1 ms, 39%), TM2 (7.6 ms, 12%), TM3 (3.2 ms, 5%), FL1 (9.7 ms, 19%)	FM2 (18.6 ms, 42%), FM5 (6.8 ms, 13%), TM3 (2.7 ms, 5%), FL1 (4.2 ms, 9%)

Values in parentheses are increases in T2 values (ms) and percentage increases (%).

FM: medial femoral condyle; FL: lateral femoral condyle; TM: medial tibial plateau; TL: lateral tibial plateau.

FM1 or FL1 = cartilage over anterior to anterior meniscus horn; FM2 or FL2 = cartilage over anterior meniscus horn; FM3 or FL3 = cartilage between anterior and posterior meniscus horn; FM4 or FL4 = cartilage over posterior meniscus horn; FM5 or FL5 = cartilage behind posterior meniscus horn. TM1 or TL1 = cartilage under anterior meniscus horn; TM2 or TL2 = cartilage between anterior and posterior meniscus horn; TM3 or TL3 = cartilage under posterior horn.