APPENDIX: Preoperative Risk Factors of Subsequent Ipsilateral ACL Revision Surgery following an ACL Restoration Procedure
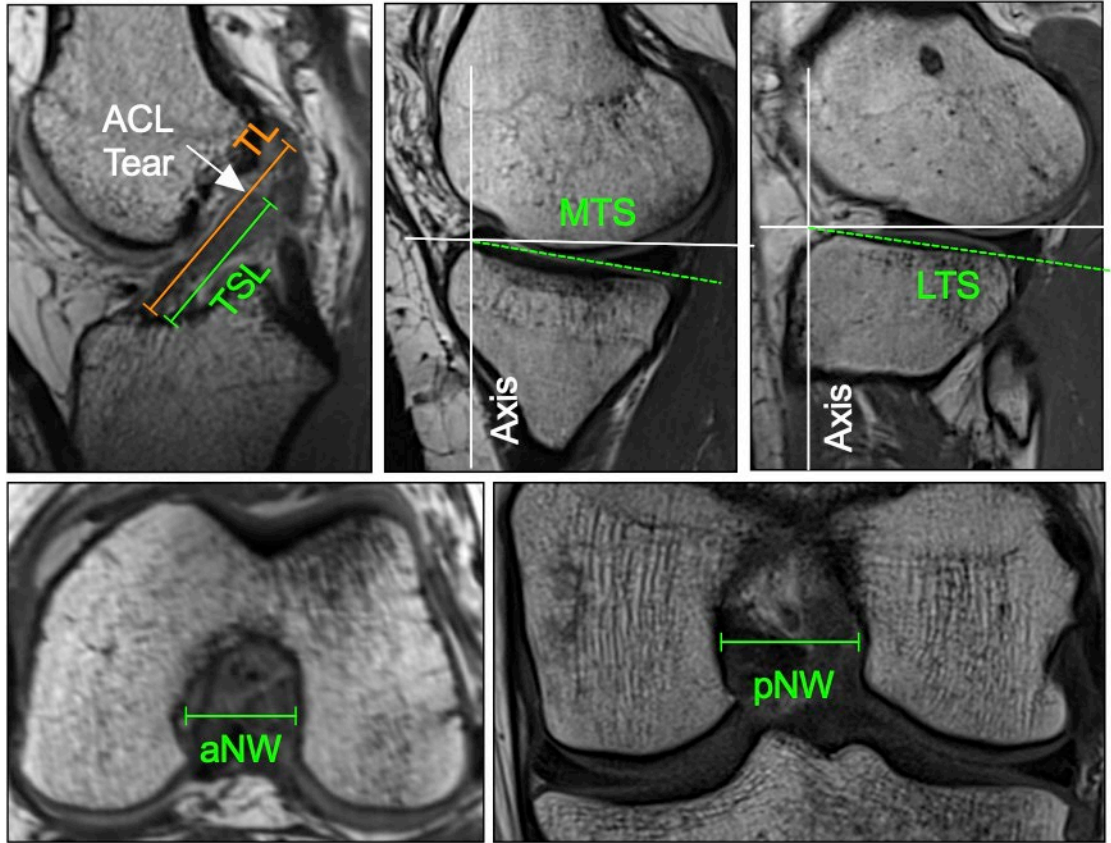

Figure A1. Measurement techniques used to quantify tibial stump length (TSL) as a percentage of total ACL length (TL), posterior slope of the medial (MTS) and lateral (LTS) tibial plateau, anterior (aNW) and posterior (pNW) notch width.

Figure A2. Representative arthroscopic images of bridge-enhanced ACL restoration.

Table A1. Breakdown of the baseline characteristics between patients with and without revision surgery.

Characteristic	No Revision N=105	Revision N=18
Demographics		
Female, no. (%)	56 (53%)	11 (61%)
White, Non-Hispanic, no. (%)	82 (78%)	16 (89%)
Age (*years*), median (IQR)	18 (16-23)	16 (15-17)
Weight (*kg*), mean ± SD	70.9 ± 13.2	66.0 ± 19.3
BMI (*kg/m^2*), mean ± SD	24.1 ± 3.2	22.6 ± 4.1
Contact injury, no. (%)	23 (22%)	8 (44%)
Level 1 sport, no. (%)	74 (71%)	13 (72%)
Baseline PROs		
IKDC subjective score, mean ± SD	46.8 ± 14.9	45.3 ± 15.0
Marx score, median (IQR) [a]	16 (12-16)	16 (14-16)
Surgery		
Injury to surgery (*days*), mean ± SD	35.1 ± 8.9	32.7 ± 10.1
Pre-op pivot shift grade, no. (%)		
0	1 (1%)	0 (0%)
1	25 (24%)	2 (11%)
2	68 (65%)	14 (78%)
3	11 (10%)	2 (11%)
Pre-op hyperextension (≥ 5 *degrees*), no. (%)	24 (23%)	7 (39%)
Medial meniscus tear, no. (%)	12 (11%)	3 (17%)
Lateral meniscus tear, no. (%)	32 (30%)	8 (44%)
Pre-op MRI Characteristics		
Tibial stump length (*%*), mean ± SD	55.0 ± 10.8	49.1 ± 13.6
Anterior notch width (*mm*), mean ± SD	19.1 ± 2.4	18.0 ± 2.1
Posterior notch width (*mm*), mean ± SD	18.5 ± 2.7	17.5 ± 1.6
LTS (*degrees*), mean ± SD	6.3 ± 2.6	7.5 ± 3.6
MTS (*degrees*), mean ± SD	5.1 ± 2.4	6.5 ± 2.7

LTS=lateral tibial slope, MTS=medial tibial slope