

## Key Points

✓ **Reduced  
Complication Rate**

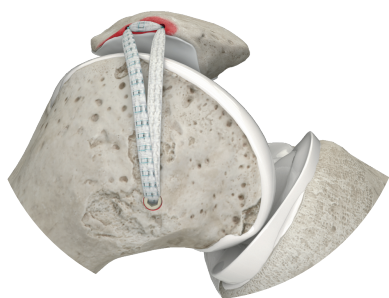
✓ **Significant  
improvement in  
postoperative scores**

✓ **No  
redislocation**

## Methods

A total of 85 patients who underwent MPFL reconstruction using a modern, synthetic graft (Infinity-Lock 5mm Tape, Xiros) from 2014 to 2022 were retrospectively reviewed with a mean follow-up of 4.8 years. Exclusion criteria were patella alta, malalignment, trochlea dysplasia and significant pain between episodes of instability. The author has developed an operative technique that is anatomic, minimally invasive, and reproducible. Pre- and post-operative Kujala and Oxford knee scores (OKS) were collected and analysed using Wilcoxon signed ranks tests. Significance was judged at the 5% level.

## Surgical Technique



The author's technique begins by attaching suture anchors to the base of a trough in the proximal, medial half of the patella.

Schottle's Point is identified with an image intensifier with the knee at 90 degrees of flexion. The Infinity-Lock 5mm Tape is attached to medial patella and whip stitched 20 mm beyond Schottle's point.

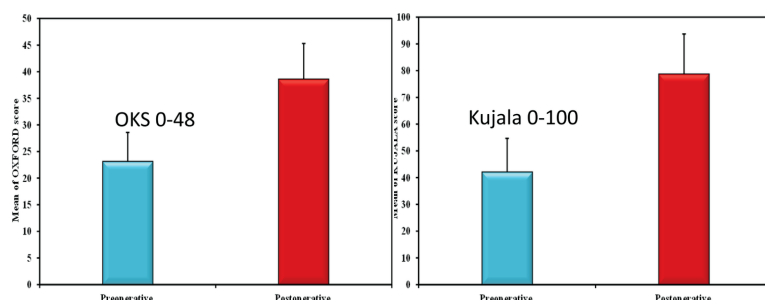
The graft is shuttled between tissue layers 2 and 3.

The graft is then clipped to soft tissue, detensioned in flexion. (MPFL is anisometric – loose in flexion / tightens in extension)

Graft is fixed in the femoral socket with a 6mm interference screw.

## Results

- **No redislocations**, patella fractures, stiffness, soft tissue reactions or hamstring harvest morbidity
- **Statistically significant improvement** in both postoperative scores
- **Reduced complication rate** of 10.6% compared to literature (11-26%)<sup>1 2 3</sup>
- Modern, synthetic graft gives **equal or better outcomes** when compared with autograft or allograft.
- Infinity-Lock 5mm is **significantly cheaper** when compared to an allograft.
- The operative technique **prevents over-tensioning**



Pre - and post operative Kujala and OKS (mean age: 28 years, mean follow-up: 4.84 years)

## Conclusions

Modern, synthetic open-weave polyester grafts (Infinity-Lock 5mm) are safe and effective for MPFL reconstruction. Careful patient selection and meticulous surgical technique reduce complication rates, with highly significant improvements in clinical outcomes at a 5-year follow-up compared to published literature, resulting in no significant complication

Hopefully, this will reassure surgeons that modern, synthetic graft is both a safe and effective graft choice for primary MPFL reconstruction and may be especially useful in patient groups such as generalised ligamentous laxity, paediatrics and revision cases.

1. Setia P, Kotwal R, Chandratreya A. Failures and Complications with MPFL reconstruction: Our experience in 215 patients. *Orthopaedic Journal of Sports Medicine*. 2021;9(6\_suppl2). doi:https://doi.org/10.1177/2325967121500192

2. Parikh SN, Nathan ST, Wall EJ, Eismann EA. Complications of Medial Patellofemoral Ligament Reconstruction in Young Patients. *The American Journal of Sports Medicine*. 2013;41(5):1030-1038. doi:https://doi.org/10.1177/0363546513482085

3. Shah JN, Howard JS, Flanigan DC, Brophy RH, Carey JL, Lattermann C. A Systematic Review of Complications and Failures Associated With Medial Patellofemoral Ligament Reconstruction for Recurrent Patellar Dislocation. *The American Journal of Sports Medicine*. 2012;40(8):1916-1923. doi:https://doi.org/10.1177/0363546512442330

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