

Clinical Summary

A Single Incision Technique for Medial Patellofemoral Ligament Repair with Augmentation Using a Reinforced Bio-Inductive Implant

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Aim:

To describe a single-incision surgical technique for medial patellofemoral ligament (MPFL) repair augmented with a reinforced bio-inductive implant, offering a simplified, reproducible approach that enhances mechanical strength and promotes biologic healing while minimizing complications associated with traditional grafts and multi-incision methods.

Why Augment the MPFL

- Medial patellofemoral ligament (MPFL) repair alone often lacks the strength to prevent recurrent patellar dislocation.
- Reinforced bio-inductive implants (BioBrace®) offer both mechanical support and biologic healing potential.

Indications and Patient Selection

- **Indicated for:** Patients with recurrent patellar dislocations or first-time dislocations with significant osteochondral injury.
- **Ideal candidates:** Adolescents and young adults with MPFL disruption.

Surgical Pearls for BioBrace® in MPFL

- Cut BioBrace® to 210-220mm and whipstitch both ends to taper the implant.
- Make a 5mm socket for a 4.75mm suture anchor with BioBrace® whip stitches through the eyelet.
- Mark BioBrace® 25mm from the edge to ensure the implant is docked into the socket for adequate fixation.
- Tension BioBrace® equal to soft tissue to allow the implant to load-share.

Key Takeaways

- This technique offers a streamlined, reproducible approach to MPFL repair augmentation.
- BioBrace® can provide both mechanical reinforcement and biologic integration, which could support early mobilization and return to activity.
- The single-incision method improves surgical control and may reduce complications associated with graft malposition or overtensioning.
- Preliminary outcomes are promising, with no recurrent dislocations and full return to activity by 6 months post-operatively.

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