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Procedure: _____

PT PROTOCOL

Patella Realignment ± Medial Patellofemoral Ligament (MPFL) Reconstruction

Rehabilitation Protocol

Weight-Bearing Status

ONLY IF DIFFERENT FROM PROTOCOL BELOW

Weight-bearing and bracing below reflect a bony realignment procedure (e.g., tibial tubercle osteotomy) with or without concomitant MPFL reconstruction. Be aware of additional restrictions posed by other concomitant procedures (e.g., cartilage procedure). Follow the weight-bearing status in the phases below unless a different status is indicated here.

☐ **Non-weight-bearing** ☐ **Toe-touch / partial weight-bearing** ☐ **Weight-bearing as tolerated**

Brace / precautions: _____

1 **Weeks 0–6**
Protect repair; 50% WB, brace-controlled flexion (0–70°→0–90°)

2 **6 Weeks**
Brace unlocked; WB advancing

3 **10 Weeks**
Full flexion; normalize gait

4 **18 Weeks**
Initiate running/plyometrics

5 **24 Weeks**
Advanced strengthening; criterion-based return to sport

Milestones above are goals, not guarantees; progression is criterion-based.

Phase 1 Weeks 0–6

Weight-Bearing: 50% weight-bearing. Avoid full weight-bearing for the first 6 weeks.

Brace: Weeks 0–2: 0–70°. Weeks 2–4: 0–90°. Unlock brace after week 4. Avoid ambulation without the brace for the first 6 weeks (brace may be removed for hygiene, therapy, sleeping, and while sitting).

Range of Motion: AAROM/PROM knee flexion and extension; no forced flexion. Weeks 0–2: 0–70° in brace. Weeks 2–4: 0–90° in brace. Weeks 4–6: brace unlocked.

Therapeutic Exercises

- Ankle pumps.
- Quad sets (consider NMES if quad activation is poor).
- Glute sets.
- Straight leg raise — 4-way.
- Hamstring activation: heel slides out of brace (up to 15° beyond the brace setting), hamstring sets, bridges.

Phase 2 Weeks 7–10

Weight-Bearing: Progressing toward full weight-bearing; be aware of restrictions from any concomitant procedure.

Range of Motion: Full PROM/AAROM to full extension (if no cartilage injury). Flexion limited to 0–110° until 8 weeks; 0–120° by 10 weeks; full flexion by 10+ weeks.

Therapeutic Exercises

Normalize gait pattern with a fully extended knee to counter quadriceps avoidance.

- Gait training: heel-toe pattern once SLR is performed without a lag and ROM is adequate.
- Underwater or anti-gravity treadmill for gait (low-grade elevation or retro-walking).
- Leg press — monitor arc of motion.
- Forward step-up progression, 6" step, with adequate strength.
- Stationary bike — short crank progressing to standard crank as ROM allows.
- Hip extension with knee flexion, side planks, bridge.
- Balance/proprioceptive training: double-limb support on progressively challenging surfaces, progressing to single-limb support.

Phase 3 Weeks 11–18

Range of Motion: Maintain full range of motion by 12 weeks.

Therapeutic Exercises

- Gait training with emphasis on heel-toe pattern.
- Balance progression with postural alignment and neuromuscular control.
- Cross-training: elliptical, stationary bike, swimming.
- Initiate running progression (late phase).
- Bilateral-leg plyometric program with MD clearance and evidence of good eccentric quad control.

Phase 4 Weeks 19–24

Goal: Advanced strengthening and function; lack of pain or apprehension with sport-specific movements; maximize strength and flexibility for sport demands.

Therapeutic Exercises

- Continue lower-extremity strengthening, flexibility, dynamic single-limb stability, and agility programs.
- Advance core stability.
- Continue cross-training.
- Advance plyometric program with MD clearance: vertical jumping progression, broad jump, single-leg landings.
- Progress running program.
- Cutting, deceleration, and change-of-direction work with MD clearance and demonstrated dynamic single-limb stability.