

ACL-R Rehab



Pre-op

- Minimal swelling, regain full knee extension
- Restore quad activation with NMES
- Preparation for post-op challenges, crutches, mental prep



Phase 1

Protection and Restore Homeostasis

- Full extension ROM
- Zero to trace effusion
- Weight bearing control with full knee extension and quad engagement
- NMES and focal joint cooling to reduce Arthrogenic Muscle Inhibition



Phase 2

Return to Run

- 2.0 Nm/Kg Quadricep Peak Force
- >70% Quadricep and Hamstring strength compared to contralateral side
- Zero to trace joint effusion/minimal pain with strength program and single leg plyometrics
- Protect the graft as it is most vulnerable during ligamentization phase



Phase 3

Return to Performance

- Completion of vertical jump test battery (SL CMJ, DL Hop Test and SL Hop Test) w/ >80% symmetry for relevant metrics (Ecc. Deceleration impulse, RSI-mod, RSI)
- Quadricep Peak torque > 3.0 Nm/kg, >90% symmetry
- Participating in group drills without opponents or decision making



Phase 4

Return to Sport

- Minimum 9 months post-op
- Quadricep Peak torque > 3.0 Nm/kg
- Competency with reactive multidirectional return to sport drills
- Fully integrated into team non-contact then full contact practices