

Rehabilitation Protocol: ACL Reconstruction with Meniscus Repair

Date of Surgery: _____

Graft: ☐ BTB Autograft ☐ BTB Allograft ☐ Hamstring Autograft ☐ Quadriceps Tendon Autograft

Meniscus: ☐ Medial ☐ Lateral

Root or radial repair: use the Meniscus Root Repair protocol restrictions for weeks 0–12. Cartilage procedure – refer to the cartilage protocol.

Protect the meniscus: No deep bends/loaded deep flexion for 4 months; avoid tibial rotation and pivoting for 6 weeks. The ACL graft determines running and return-to-sport timing. Outcome measures: LEFS, IKDC, NPRS, ACL-RSI. Please contact our office with any questions or concerns.

☐ **Phase I – Protection (Weeks 0–4)**

- **Weightbearing: Partial weightbearing (50%) with crutches**
- **Hinged Knee Brace: Week 0–1:** locked in full extension at all times except PT/exercise. **Weeks 1–4:** unlocked 0–90° for ambulation; removed for sleep once able to perform SLR without lag
- **Range of Motion – 0–90° for 6 weeks.** Emphasize full extension (prevent flexion contracture)
- **Precautions:** No active knee extension 40–0° until 12 weeks; no resisted hamstring curls for 6 weeks
- **Therapeutic Exercises**
 - Quad sets with NMES (quad stim); hamstring sets; heel slides within limits; patellar mobilization
 - Active extension/pushdowns; AMI prevention – education video: journals.sagepub.com/doi/10.1177/26350254221086295
 - SLR in brace locked in extension until no lag; multi-plane SLR; non-weightbearing gastroc/soleus stretch
 - Hip and core strengthening in non-weightbearing positions
- **Criteria to Progress:** Full extension; flexion to 90°; SLR without lag; effusion controlled

☐ **Phase II – Weightbearing Progression (Weeks 4–6)**

- **Weightbearing:** As tolerated – **discontinue crutches** with normal gait
- **Hinged Knee Brace: Discontinue at 6 weeks**
- **Range of Motion –** Maintain full extension; flexion within 0–90° until 6 weeks
- **Therapeutic Exercises**
 - Closed chain extension (mini squats 0–45°, weight shifts, TKEs)
 - Toe raises; balance; weight-bearing gastroc/soleus stretch
 - Stationary bike once flexion allows

☐ **Phase III – Strengthening (Weeks 6–16)**

- **Range of Motion –** Progress to full, painless ROM after 6 weeks
- **Precautions: No deep bends for 4 months;** no active knee extension 40–0° until 12 weeks
- **Therapeutic Exercises**
 - Advance closed chain strengthening (leg press, squats, step-ups within 0–90°); hamstring curls from 6 weeks
 - Proprioception; Stairmaster/elliptical
 - **Week 12:** Open chain knee extension PRE 90–40°, progressing to 90–30°, then 90–0°; quadriceps strength testing
 - **Straight-ahead running at 12 weeks** once cleared and quad strength ≥70% of contralateral limb

- **Criteria to Progress:** Full ROM; quiet knee; symmetric squat; quad strength $\geq 70-80\%$ of contralateral limb

☐ **Phase IV – Return to Sport (Months 4–9+)**

- **Therapeutic Exercises**
 - Loaded deep flexion (full squats, lunges) after 4 months as tolerated
 - Plyometrics (double to single leg), agility, cutting, and sport-specific drills
 - 3-, 6-, and 9-month return-to-sport assessments
- **Return to Sport: 9-month return-to-sport assessment** – quad strength and hop testing $\geq 90\%$ of contralateral limb, no joint-line symptoms, good movement quality; physician clearance