

**Rehabilitation Protocol:
Anterior Cruciate Ligament Reconstruction;
Complex Meniscus Repair**

**Phase I:
0-6 weeks**

- Brace: Locked at 0 degrees extension for ambulation & sleeping
- ROM: 0-90 deg permitted with emphasis on full extension
- Weightbearing: NWB
- Exercises:
 - Patella mobilization
 - Straight leg raise supine with brace locked at 0 degrees
 - Quad sets
 - Ankle pumps
 - Short crank (90mm) ergometry

**Phase II:
6-8 weeks**

- Brace: Brace may be unlocked for weightbearing, 0-90 deg
- ROM: 0-90 deg permitted when weightbearing; when not weightbearing can progress from 0-120 deg
- Weightbearing: transition to PWB then WBAT
- Exercises:
 - Active knee extension from 40 degrees
 - Standard (170mm) ergometry (if knee ROM >115 degrees)
 - Leg press (80-0 degree arc)
 - Mini squats/weight shifts
 - Proprioception training
 - Initiate step up program
 - Avoid tibial rotation until 6 weeks

**Phase III:
8-14 weeks**

- Brace: D/C brace and wean from crutches when gait normalized
- ROM: full (but no loading beyond 90 degrees knee flexion)
- Weightbearing: Transition gradually from TTWB to WBAT
- Exercises:
 - Progressive squat program
 - Initiate step down program
 - Leg press, lunges
 - Isotonic knee extension (90-40 degrees, closed chain)
 - Agility exercises (sport cord)
 - Versaclimber/Nordic Track
 - Retrograde treadmill ambulation

**Phase IV:
14-22 weeks**

- Brace: none
- ROM: full
- Weightbearing: WBAT
- Exercises:

- Begin forward running (treadmill) program when 8" step down satisfactory
- Continue strengthening & flexibility program
- Advanced sports-specific agility drills
- Start plyometric program

Phase V:
>22 weeks

- Brace: none
 - ROM: full
 - Weightbearing: WBAT
 - Exercises:
 - Advance plyometric program
 - Return to sport-- MD directed, typically 8-9 months postop depending on sport
- *May require functional sports assessment prior to clearance to return to sport at ~6 months postoperatively