

# ACL Reconstruction Rehabilitation Protocol

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**Diagnosis:** ACL Reconstruction **PT Frequency:** 2-4 times per week **ROM Restrictions:** Full ROM

Brace: Locked in extension x 2 weeks, then unlocked

Weightbearing: WBAT

### Weeks 0-4 (Phase I)

• Weight Bearing: TTWB with crutches immediately postop but progress to WBAT (dual crutch use → single crutch use in opposite arm → no crutch use).

- Brace:
  - o Weeks 0-2: Locked in full extension for sleeping and all WB. Off **only** for hygiene.
  - Weeks 2-4: Unlocked when quadriceps activity returns. Off only for hygiene.
- ROM: Full with therapy except as above weeks 0-2. Emphasize extension. Goal of full extension and 60° flexion by 2 weeks
- Exercises: Heel slides, quad sets, patellar mobilization, SLR with brace locked in extension, seated SAQ sets

## Weeks 4-6 (Phase II):

- Weight Bearing: WBAT
- Brace: Unlocked
- ROM: Full. Goal of 120° flexion by 6 weeks.
- Exercises
  - Motion
    - Progress through passive, active, and resisted ROM
    - Extension board and prone hang with ankle weights (up to 10 lbs), posterior leg stretch (legs up against a wall), seated wall sits (back against wall, legs flat on ground)
    - Stationary bike with no resistance for knee flexion (alter seat height as ROM increases)
    - Encourage frequent ankle ROM
  - Strengthening
    - Initiate BFR
    - SAQ sets (seated first, progress to standing), SLRs with knee locked in extension. Standing glut sets
    - Closed chain work (mini-squats/weight shifts, gentle leg press 0-90° arc) once full weight bearing. Wall sits w/squeezes (progress knee flexion angle and length of time/reps). Progress proprioception training
    - Initiate Step-Up program
    - No restrictions to ankle/hip strengthening



#### Modalities

- PRN (i.e. electrical stimulation, ultrasound, etc) per discretion of therapist.
- Heat before therapy sessions, Ice after therapy sessions.
- May participate in agua therapy when skin is fully healed

## Weeks 6-12 (Phase III):

- Weight Bearing: FullBrace: Discontinue
- ROM: Full
- Exercises
  - Progress Phase II exercises
  - o Isotonic Knee extension (90 to 40 degrees, closed chain preferred).
  - Add lunges, side lunges, leg press and/or slideboard.
  - o Initiate Step-Down program.
  - o Versaclimber/Nordic Track, retrograde treadmill ambulation, Stairmaster.
  - Add core strengthening exercises.
  - o Progress balance/proprioception.
  - o Continue stationary bike for ROM, strengthening and cardio.
  - o Continue modalities PRN as indicated above.

### Weeks 12-18 (Phase IV):

- Exercises
  - Progress Phase III exercises and functional activities (single leg balance, core, glutes, and eccentric hamstrings).
  - Advance strengthening as tolerated, continue closed chain exercises. Increase resistance on equipment.
  - Begin forward treadmill running program when 8" step down is satisfactory (No sooner than 12, preferably 16 weeks).
  - Begin plyometrics and increase as tolerated.

## Weeks 18-24 (Phase V):

- Exercises
  - -Progress Phase IV
  - Initiate sport-specific agility drills and functional testing
  - -Advance plyometric program starting at 22 weeks
  - -Advance agility program at 22 weeks (Z cuts, backward to forward running, footwork drills, double leg power jumps, alternate single leg jump rope)
  - -FSA completed after 22 weeks

#### >6 months (Phase V+)

Gradual return to sports participation after completion of FSA and clearance by MD