

ACL Reconstruction Allograft or Autograft

****DISCLAIMER:** Total length of rehab will vary depending upon the following factors: severity or acuteness of injury, age, health, or personal goals of the patient.

PRECAUTIONS: *Avoid all open kinetic chain activities for phases I - III*

Phase I: 0-2 weeks.

Goals for Phase I:

1. 0°-90° AROM (7 days); 0°-110° (14 days)
 2. Full weight bearing without crutches
 3. Fair to good quad strength (able to perform SLR w/out quad lag)
- A. Orthotics: Patient is placed in IROM brace to be worn unlocked with full range of motion during day and locked in full extension at night (until patient has full active extension.) TED hose to be worn on affected leg. Polar care unit used frequently throughout the day
- B. Gait training: Patient should be progressed from WBAT with crutches to FWB without crutches (w/in one to two weeks) (DCed by end of week 2)
- C. ROM: Work to restore normal knee A/PROM (no open chain AROM 0 – 30 deg)
- D. Strengthening: Begin with isometrics-quad, ham, add sets; progressing to straight leg raises (< 2 deg quad lag), Hamstring curls, progressive resistive exercises: theraband, tubing, cuff weights, closed chain exercises (wt shifting, ½ squats, shuttle), (no resistive open chain SAQ, or TKE from 0 – 45 deg)
- E. Flexibility: Calf, quadriceps, and hamstring stretching
- F. Balance/proprioception: Standing on one leg-eyes open/closed
- G. Soft tissue management: Wound monitoring (avoid getting stitches wet), swelling control, scar massage, patellar mobilizations.
- H. Modalities: Use for pain, inflammation, swelling control, and muscle re-education as needed

Phase II: 2 – 4 weeks

Goals for Phase II:

1. 0°-110° AROM (by wk 2), (135 deg by wk 4)
 2. Good quad/hamstring muscle tone
 3. Full weight-bearing without limp using functional brace
 4. Progression from bilateral to unilateral activity
- A. Orthotics: Patient will be fitted for functional ACL brace once swelling is controlled (goal: 3-4 weeks)
- B. ROM: Progress ROM as tolerated (0°-135°)
- C. Strengthening: Progress to leg presses (high foot placement & low to moderate resistance), step-ups, wall squats, standing terminal knee extensions (TKE with resistance above knee),
- D. Flexibility: Continue as needed
- E. Balance: Continue as needed
- F. Modalities: Continue as needed.

Phase III: 4 – 6 weeks

Goals for Phase III:

1. (0°-135 – 145 or normalize to uninvolved side if different) AROM
 2. Return to work activity (with functional brace)
- A. ROM: Continue as needed
- B. Strengthening: 1-leg calf raises, step downs, leg extensions with light resistance-theraband/cable 90-45deg, and scooter hams, begin isokinetics: (concentric/eccentric hamstrings)
- C. Flexibility: Can begin stretching IT band if needed. Continue with quad/HS/calf stretches
- D. Balance: Continue emphasizing proprioception and neuromotor control (single leg balance on foam and tramp with ball toss when single leg balance on stable ground with eyes closed is no longer challenging)

Phase IV: 6 – 8 weeks

Goals for Phase IV:

1. Full knee ROM
 2. Good functional strength with walking, stairs,
- A. ROM: Full ROM
- B. Strengthening: leg extensions 90°-45° with resistance, 1-leg adduction squats, isokinetics-concentric quads, concentric hams, 90°-45° quads using medium cushion with speeds >240°, sport Cord Exercises-closed chain exercises

Phase V: 8 – 12 weeks

- A. Strengthening: slide board if pt has good quad control
- B. Perform KT 1000

Phase VI: 12-24 weeks

Goals for Phase VI:

1. 3 month Biodex Test 90°-0° (Goal 6 months-80% strength)
 2. Perform KT 1000 test between 10 & 12 wks
 3. Begin weight room strengthening activities-with Brace
- A. Strengthening: Begin weight-room strengthening exercises per therapist's orders. May begin full arc quad strengthening as tolerated. If patellar tendon pain is present w/ PREs, decrease resistance or exacerbating exercises.
- B. Functional Activities: begin jogging if quad/ham strength is 70% of uninvolved side

Phase VII: 6-12 months

Goals for Phase VII:

1. Return to functional/sport activities (if 80% quad/ham strength and passes single leg hop for distance test) (hop distance must average w/in 15% of uninvolved side, and best jump should be w/in 10% of patient's height):
 2. Sport specific training
- A. Continue strengthening/conditioning/functional activities as needed