

PHYSIOTHERAPY PRESCRIPTION

ACL Reconstruction Rehabilitation Protocol – 5 Phase Progression

PHASE I: Post-Op (0-6 weeks)

Goals:

- Protect graft and graft fixation and minimize effects of immobilization
- Control inflammation/swelling and achieve Full active and passive extension range of motion.
- Restore normal gait on level surfaces

Weightbearing Status:

- Weight-bearing as tolerated immediately post-op with crutches
- Wean crutches by 4wks as patient demonstrates normal gait

Physiotherapy / Exercises:

- Patellar mobilization/scar mobilization
- Heel slides, Quad sets, Hamstring curls
- Gastroc/Soleus, Hamstring stretches and strengthening
- SLR, all planes, once quads strength sufficient to prevent extension lag

PHASE II: Post-Op (6-12 weeks)

Criteria for advancement to Phase II:

- Full extension/hyperextension and minimum of 90 degrees flexion
- Good quad set, SLR without extension lag
- Minimal swelling/inflammation and normal gait on level surfaces

Goals:

- Restore normal gait with stair climbing

- Maintain full extension, progress toward full flexion range of motion
- Protect graft and graft fixation
- Increase hip, quadriceps, hamstring and calf strength and proprioception

Exercises:

- Continue and progress all exercises from Phase I
- Continue closed kinetic chain strengthening as above,
- Progress to one-leg squats, leg press, partial lunges, deeper wall sits.
- Stairmaster (begin with short steps, avoid hyperextension) and elliptical
- Stationary bike- progress time and resistance; progress to single leg
- If available, begin pool running (waist deep)
- Single leg balance, proprioception work

PHASE III: Post-Op (3-4 months)

Criteria to advance to Phase III include:

- No patellofemoral pain and minimal swelling/inflammation
- Minimum of 120 degrees of flexion
- Sufficient strength and proprioception to initiate running.

Goals:

- Full range of motion
- Improve strength, endurance and proprioception to prepare for sport
- Avoid overstressing the graft and protect the patellofemoral joint
- Normal running mechanics
- Strength approximately 70% of the uninvolved lower extremity

Exercises:

- Continue flexibility and ROM exercises as appropriate for patient

- Knee extensions 90°-30°, progress to eccentrics
- Full weight-bearing running
- Begin swimming if desired
- Progressive hip, quadriceps, hamstring, calf strengthening
- Cardiovascular/endurance training via Stairmaster, elliptical, bike
- Advance proprioceptive activities

PHASE IV: Post-Op (4-5 months)

Criteria for advancement to Phase IV:

- No significant swelling/inflammation with full, pain-free ROM
- No evidence of patellofemoral joint irritation
- Strength approximately 70% of uninvolved lower extremity
- Sufficient strength and proprioception to initiate agility activities
- Normal running gait

Goals:

- Symmetric performance of basic and sport specific agility drills
- Single hop and 3 hop tests 85% of uninvolved lower extremity
- Quad and hamstring strength at least 85% of uninvolved LE

Exercises:

- Continue and progress flexibility and strengthening program
- Initiate plyometric program as appropriate for patient's athletic goals
- Agility progression including, but not limited to:
 1. Side steps and Crossovers
 2. Figure 8 and Shuttle running
 3. One leg and two leg jumping

4. Cutting and Agility Ladder Drills

5. Acceleration/deceleration/sprints

- Continue progression of running distance based on patient needs.
- Initiate sport-specific drills as appropriate for patient

PHASE V: Post Op (5 – 6 months)

Criteria for advancement to Phase V:

- No patellofemoral or soft tissue complaint
- Necessary ROM, strength, endurance, and proprioception to return
- Physician clearance to resume partial or full activity

Goals:

- Safe return to athletics/work
- Maintenance of strength, endurance, proprioception
- Patient education with regards to any possible limitations

Exercises:

- Gradual return to sports participation
- Maintenance program for strength, endurance