

ACL Postop Protocol

Core Rehabilitation Guidelines

- Full extension: brace for 2 weeks
- Gait normalization by 4 weeks without assist devices
- Aggressive patellar mobilization during first 6 weeks
- Must have full extension and 90° flexion by 2 weeks
- Full ROM by 6 weeks
- Weight bearing as tolerated with crutches
 - unless meniscus repair: toe touch weight bearing then progress to full weight bearing by 2 weeks

Specific Timeline: 0-2 Weeks

- **Emphasize**
 - Patella mobility
 - Full knee extension
 - Improving quadriceps contraction
 - Controlling pain/effusion
- GOALS:
 - ROM:
 - Full passive extension
 - **Minimum** of 90° knee flexion
 - Normalize patella mobility
 - Weightbearing:
 - Progressive weight bearing to WBAT
 - Control post-operative pain / swelling
 - Prevent quadriceps inhibition
 - Promote independence in home therapeutic exercise program
- BRACE INSTRUCTIONS:
 - Ambulate with brace locked in extension
 - DC hinged brace after 2 weeks post op
- PRECAUTIONS:
 - Avoid heat application
 - Avoid prolonged standing/walking
- TREATMENT RECOMMENDATIONS:
 - Towel under heel for knee extension, A/AAROM for knee flexion, patella mobilization, quadriceps re-education (NMES and /or EMG), hip progressive resisted exercises, proprioception training, short crank bike, bilateral leg press (5 – 70°), SLR all planes (with brace locked to without brace), cryotherapy for pain and edema
 - Emphasize patient compliance to HEP and weight bearing precautions/progression
- MINIMUM CRITERIA FOR ADVANCEMENT TO NEXT PHASE:

- Able to SLR without quadriceps lag
- 0° knee extension, minimum of 90° knee flexion
- Able to demonstrate unilateral (involved extremity) weight bearing without pain

Specific Timeline: 2-6 Weeks

- GOALS:
 - ROM 0° - 125°, progressing to full ROM
 - Good patella mobility
 - Minimal swelling
 - Restore normal gait (non-antalgic) without assistive device
 - Ascend 8" stairs with good control, without pain
- BRACE INSTRUCTIONS:
 - Switch to pull on brace after 2 weeks post op
 - DC pull on brace after 6 weeks post-op
- TREATMENT RECOMMENDATIONS:
 - Continue phase I exercises as appropriate
 - Advance AAROM knee flexion/extension exercises (emphasize full passive extension), hamstring/calf, flexibility, progress to standard bike, leg press (80 – 0° arc), mini squats, active knee extension to 40°, proprioceptive training, forward step up program, underwater treadmill (incision benign)
 - Progress WB and DC crutches as quadriceps strength improves
 - Progress/advance patients home exercise program (evaluation based)
- PRECAUTIONS:
 - Avoid descending stairs reciprocally until adequate quadriceps control & lower extremity alignment
 - Avoid pain with therapeutic exercise & functional activities
- MINIMUM CRITERIA FOR ADVANCEMENT:
 - ROM 0-125°
 - Normal gait pattern
 - Demonstrate ability to ascend 8" step
 - Good patella mobility
 - Functional progression pending functional assessment

Specific Timeline: 6-14 Weeks

- GOALS:
 - Restore Full ROM
 - Able to descend 8" stairs with good leg control & no pain
 - Improve ADL endurance
 - Improve lower extremity flexibility
 - Protect patellofemoral joint
- TREATMENT RECOMMENDATIONS:
 - Progress squat/leg press program, initiate step down program, advance proprioceptive training, agility exercises, retrograde treadmill ambulation/running, quadriceps stretching
 - Emphasize patient compliance to both home and gym exercise program

- PRECAUTIONS:
 - Avoid pain with therapeutic exercise & functional activities
 - Avoid running and sport activity till adequate strength development and MD clearance
- MINIMUM CRITERIA FOR ADVANCEMENT:
 - ROM to WNL
 - Ability to descend 8” stairs with good leg control without pain
 - Functional progression pending functional assessment
 - Emphasize
 - Improving quadriceps strength
 - Eccentric quadriceps control
 - Normalizing knee ROM and patella mobility
 - Minimizing knee effusion
 - Normal gait pattern

Specific Timeline: 14-22 Weeks

- GOALS:
 - Demonstrate ability to run pain free
 - Maximize strength and flexibility as to meet demands of ADLS
 - Hop Test > 75% limb symmetry
- TREATMENT RECOMMENDATIONS:
 - Start forward running (treadmill) program when 8” step down satisfactory
 - Advance agility program / sport specific
 - Start plyometric program when strength base sufficient
- PRECAUTIONS:
 - Avoid pain with therapeutic exercise & functional activities
 - Avoid sport activity till adequate strength development and MD clearance
- CRITERIA FOR ADVANCEMENT:
 - Symptom-free running
 - Hop Test > 75% limb symmetry
 - Functional progression pending & functional assessment

Specific Timeline: 22-36 Weeks

- GOALS:
 - Lack of apprehension with sport specific movements
 - Maximize strength and flexibility as to meet demands of individual’s sport activity
 - Quadricep LSI > 90% limb symmetry
- TREATMENT RECOMMENDATIONS:
 - Continue to advance LE strengthening, flexibility & agility programs
 - Advance plyometric program
- PRECAUTIONS:
 - Avoid pain with therapeutic exercise & functional activities
 - Avoid sport activity till adequate strength development and MD clearance
- CRITERIA FOR DISCHARGE:

- Quadriceps LSI > 90% limb symmetry
- Lack of apprehension with sport specific movements
- Flexibility to accepted levels of sport performance
- Independence with gym program for maintenance and progression of therapeutic exercise program at discharge