Sutter Health

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ACL Reconstruction and MCL Repair:

The intent of this protocol is to provide the therapist with guidelines of the post-operative rehabilitation course after an ACL reconstruction and MCL Repair. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

INDIVIDUAL CONSIDERATIONS:

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PHASE I (0-2 weeks)

Goals

- Control inflammation and pain
- Full active extension
- Achieve quadriceps control

Weight-Bearing Status

- NWB with brace locked in extension x 4 weeks

Therapeutic Exercises

- SLR in all planes (with brace locked in extension)
- Calf pumps, quadriceps sets
- Electrical stimulation
- **Patellar mobilization (including superior glide)**
- Balancing activities on a stable platform with eyes open and closed

PHASE II (2- 6 weeks)

Criteria

- Good quad set and SLR with brace
- Full extension
- No active inflammation

Goals

- **Achieve 120 degrees of flexion**
- Protect graft fixation

Brace/Weight-bearing status

- Weeks 0-4: NWB with brace locked in extension
- Weeks 4-6: TTWB (20% max) with brace locked in extension

Therapeutic Exercises

- **Begin PROM and AAROM at 1 week post-op**
- Prone flexion ROM with 10# of varus thrust to protect MCL
- Wall slides then progress to mini-squats (0-45 degrees) when quad control is good
- Pool walking to restore normal gait pattern
- Toe raises
- Gastroc stretches
- Ankle strengthening with sp01is tubing (Theraband)

PHASE Ill (6-12 weeks)

Criteria

- Passive knee flexion to 120 degrees
- No active inflammation
- Good quadriceps control

Goals

- Achieve full flexion
- Establish normal gait
- Progress with strengthening and endurance

Brace/Weight-Bearing Status

- FWB with brace unlocked, may discontinue brace when normal gait is established

Therapeutic Exercise

- **Begin active knee flexion at 6 weeks**
- Continued ROM with emphasis on terminal extension and pain-free flexion

- Begin the following at 6 weeks:
    - Stationary bike (low resistance, high seat, with no toe clips---so as to prevent hamstring contraction)
    - Mini-squats to 45 degrees
    - Leg press to 60 degrees
    - Stairmaster
    - Elliptical trainer
    - Proprioception
        - Mini-tramp standing
        - Unstable platfo1m (BAPS) with eyes open and closed
        - Standing ball throwing and catching

PHASE IV (3-6 months)

Criteria

- Full, pain-free active range of motion
- No patellofemoral irritation
- Sufficient strength and proprioception to progress to functional activities
- Normal gait

Goals

- Improve strength and proprioception
- Maintain FROM

Therapeutic Exercises

- Progress with flexibility and closed-chain strengthening program
- Swimming (no breast stroke)
- Stationary bike (may increase resistance)
- Box steps (6 and 12 inches)
- Jogging, straight ahead, may be started around 4-5 months when quad strength is 90% of contralateral side

PHASE V (6-9 months)

Criteria

- Full, pain-free motion
- No effusion
- Sufficient hamstring and quadriceps strength to progress to agility exercises

Goals

- Return to all recreational and sporting activities by 9 months
- Maintain full, painless motion
- Progress with strengthening, agility, and endurance

Therapeutic Exercises

- Progress with closed chain quadriceps and hamstring strengthening
- Plyometrics
    - Stair jogging
    - Box jumps (6 to 12-inch heights)
- Proprioception
    - Mini-tramp bouncing
    - Lateral slide board
    - Ball throwing and catching on unstable surface
- Functional Training
    - Running
        - Figure-of-eight pattern
- Agility
    - Start at slow speed
    - Shuttle run, lateral slides, Carioca cross-overs
    - Plyometrics
    - Stair running
    - Box jumps (1-2 foot heights)
    - At 8 months, may start
        - Sports specific training (start at 25% speed and increase as tolerated)
        - Incorporate cutting
        - Increase heights for plyometric conditioning

Criteria for Return to Sports

- Usually occurs at 9-12 months post-op
- Full, painless range of motion
- No effusion
- Quadriceps and hamstring strength 90% of contralateral side
- No apprehension with all sports specific drills
- Cleared by Dr. Hughes