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REHAB PROTOCOL: MCL Sprain (Grade 3) – Non-op

Name:	Date:
Diagnosis:	Date of Surgery:
Phase I (Weeks 0-3)	
Goals:	

- o Emphasis on knee protection from valgus forces
- o Control pain / swelling
- o Range of Motion 0 -120°
- Prevent Quadriceps inhibition
- o Independence in home therapeutic exercise program

Treatment Strategies:

- o Towel extensions, prone hangs, etc.
- o Quadriceps re-education (Quad Sets with EMS or EMG)
- o Progressive Weight Bearing PWB → WBAT with brace locked at 0° with crutches
- Patella mobilization
- o Active flexion / Active-Assisted extension Exercise
- o SLR's (avoid Adduction)
- Short Crank ergometry
- o Hip progressive resisted exercises
- o Proprioception Board (bilateral weight bearing / sagittal plane only)
- \circ Leg Press (bilateral / 70 5° arc) (if ROM > 90°)
- o Knee Extension Isometrics (Sub-maximal Bilaterally @ 60°)
- o Upper extremity cardiovascular exercises as tolerated
- Cryotherapy
- o Home therapeutic exercise program: Evaluation based
- o Emphasize patient compliance to home therapeutic exercise program and weight bearing precautions / progression

Phase 2 (week 3-6)

Goals:

- \circ ROM $0 \rightarrow 140^{\circ}$
- Good patella mobility
- Minimal swelling

- o Restore normal gait (non-antalgic)
- o Ascend 8"stairs with good control without pain

Precautions:

- Avoid descending stairs reciprocally until adequate quadriceps control & lower extremity alignment
- o Avoid pain with therapeutic exercise & functional activities

Treatment Strategies:

- Progressive Weight Bearing/WBAT with crutches brace opened 0 -50°, if good quadriceps control (good quad set / ability to SLR without lag or pain)
- o D/C crutches when gait is non-antalgic
- o Standard ergometry (if knee ROM > 115°)
- Leg Press $(85 \rightarrow 0^{\circ} \text{ arc})$
- AAROM exercises
- Mini Squats / Weight Shifts
- o Proprioception training: Prop board / Contralateral Theraband Exercises
- Sagittal & Frontal Planes
- o Initiate Forward Step Up program, advance to Stairmaster
- Aquaciser (gait training)
- SLR's (progressive resistance)
- Adduction (if pain free)
- o Hamstring / Calf / Quadriceps flexibility exercises
- Hip / Hamstring PRE
- o Active knee extension to 0° (PRE pain free ROM)
- o Home therapeutic exercise program: Evaluation based

Phase 3 (week 6-12)

Goals:

- o Restore Full ROM
- o Demonstrate ability to descend 8"stairs with good leg control without pain
- o Improve ADL endurance
- o Functional & Isokinetic Testing > 85% Limb Symmetry
- o Improve lower extremity flexibility
- o Protect patellofemoral joint

Precautions:

- o Avoid pain with therapeutic exercise & functional activities
- Avoid running and sport activity till adequate strength development and MD clearance

Treatment Strategies:

- Progress Squat program (PRE)
- o Brace changed to MD preference (OTS brace, Patella sleeve, etc.)
- o Initiate Step Down program
- Lunges
- \circ Isokinetic training (fast \rightarrow moderate velocities)
- Advanced proprioception training (perturbations)
- Agility exercises (sport cord)
- o Retrograde treadmill ambulation / running
- Forward Step Down Test (NeuroCom)
- Forward running
- o Plyometric Exercises
- Sport Specific Training
- o Functional & IsokineticTesting



o Home therapeutic exercise program: Evaluation based

Criteria for Advancement / Return to Sport

o ROM to WNL

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- o Ability to descend 8"stairs with good leg control without pain
- o Hop Tests & Isokinetic Test > 85% limb symmetry
- o Lack of apprehension with sport specific movements
- o Flexibility to accepted levels of sport performance

Comments:			
Frequency:	times per week	Duration:	weeks
Signature:		Date:	

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