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### **Post-Operative Rehabilitation Guidelines Following**

### **Knee MCL Reconstruction/Repair**

The following protocol is intended as a general guideline for physical therapist, athletic trainer, and patient after MCL repair/reconstruction of the knee. These guidelines are designed to facilitate the expedited and safe return to athletic or professional activity and is based on a review of the current scientific principles of knee rehabilitation. For the treating health care provider this protocol should not serve as a substitute for individualized clinical decision making during the patient's post-operative course following this procedure. It should rather take into consideration the individual's physical findings, progression, and possible post-operative limitations. If the therapist or patient requires assistance or encounters any postoperative complication they should consult with the surgeon.

#### **PHASE I: 0-2 WEEKS POSTOP**

##### Goals:

- Pain/effusion control
- Good quad control

##### Weightbearing/Crutches:

- Partial weight bearing (TDWB) in brace (no more than 25% of body weight)

##### Exercises:

- Patella mobilization
- Calf pumping AAROM, AROM 0-90 degrees
- Passive gentle extension with heel on bolster or prone hangs
- Electrical stimulation in full extension with quad sets and SLR Quad sets
- Co-contractions quads/hams Straight leg raise (SLR) in brace
- No Short arc quad exercises
- No stationary bike x 6 weeks
- Cryotherapy with knee in full extension after exercise

## **PHASE II: 2-4 WEEKS POSTOP**

### Goals:

- ROM 0-100 degrees
- No extensor lag

### Ambulation and Brace:

- Brace x 8 weeks – Open to 0-45 degrees
- Crutches – PWB in brace (up to 50% of body weight)

### Exercises:

- Continue appropriate previous exercises
- Gentle Scar massage when incision healed
- AAROM, AROM 0-90 degrees
- only SLR x 3 on mat (no brace if good quad control)

## **PHASE III: 4-6 WEEKS POSTOP**

### Goals:

- ROM 0-120 degrees
- No effusion

### Ambulation and Brace:

- Brace x 8 weeks – Open to 0-90 degrees
- Crutches – PWB in brace (up to 50-75% of body weight)

### Exercises:

- Continue appropriate previous exercises
- AAROM, AROM 0-120 degrees
- Standing SLR x 3 with light
- Theraband bilaterally
- May begin Hip ADD with Theraband if good LE control in full extension
- Leg press 0-45 degrees with resistance up to 1/4 body weight
- Hamstring curls 0-45 degrees
- Carpet drags or rolling stool (closed chain)
- No stationary bike x 6 weeks

#### **PHASE IV: 6-8 WEEKS POSTOP**

##### Goal:

- Full ROM

##### Ambulation and Brace:

- Open to full range Crutches – WBAT,
- D/C crutch when gait is normal

##### Exercises:

- Continue appropriate previous exercises
- PROM, AAROM, AROM to regain full motion
- Standing SLR x 4 with light Theraband bilaterally
- Wall squats 0-45 degrees
- Leg press 0-60 degrees with resistance up to 1/2 body weight
- Hamstring curls through full range
- Carpet drags or rolling stool
- Forward, lateral and retro step downs in parallel bars
- No knee flexion past 45 degrees (small step) Proprioceptive training
- Single leg standing in parallel bars
- Double leg BAPS for weight shift
- Single leg heel raises
- Treadmill – Forwards and backwards walking
- Stationary bike – Progressive resistance and time
- Elliptical trainer once bike tolerated well

#### **PHASE V: 8-12 WEEKS POSTOP**

##### Goal:

- Walk 2 miles at 15min/mile pace

##### Brace:

- D/C BRACE

##### Exercises:

- Continue appropriate previous exercises with progressive resistance
- Leg press 0-90 degrees with resistance as tolerated
- Hamstring curls on weight machine
- Knee extension weight machine
- Forward, lateral and retro step downs (medium to large step)
- Proprioceptive training – Single leg BAPS, ball toss and body blade

- Grid exercises
- Treadmill – Walking progression program
- Stairmaster – Small steps
- Pool therapy

#### **PHASE VI: 3-4 MONTHS POSTOP**

##### Goal:

- Run 2 miles at an easy pace

##### Exercises:

- Continue appropriate previous exercises
- Fitter Slide board Functional activities
- Figure 8s, gentle loops, large zigzags
- Treadmill – Running progression program
- Pool therapy
- Swimming laps
- Quad stretches

#### **PHASE VII: 4-6 MONTHS POSTOP**

##### Goal:

- Return to all activities

##### Exercises:

- Continue appropriate previous exercises
- Agility drills/Plyometrics
- Sit-up progression
- Running progression to track
- Transition to home/gym program
- No contact sports until 6 months post-op