

# **ACL/MCL Hamstring or Allograft Reconstruction**

The intent of this protocol is to provide the therapist and patient with guidelines for the post-operative rehabilitation course after multi-ligament knee reconstruction. This protocol is based on a review of the best available scientific studies regarding knee rehabilitation. It is by no means intended to serve as a substitute for one's clinical decision making regarding the progression of a patient's post-operative course. It should serve as a guideline based on the individual's physical exam/findings, progress to date, and the absence of post-operative complications. If the therapist requires assistance in the progression of a post-operative patient they should consult with your surgeon. **Progression to the next phase based on Clinical Criteria and/or Timeframes as appropriate.** 

## Weeks 0-3 weeks post-op = Advanced Protective Phase:

Brace: Braced in full extension
Weight Bearing: Strict Non-Weight Bearing
ROM Goals:
Extension: Full Flexion: 0 degrees
Therapeutic Exercise:
Strengthening:
Three-way leg raises in brace (not flexion)
Functional quadriceps electric stimulation
Manual Therapy:

Patellar mobilization Peri-patellar soft tissue mobilization

**Cryotherapy:** Six to eight times a day for 20 minutes

## Weeks 4 to 9: Early Strengthening:

Brace: Open to 30 degrees and progress 10-15 degrees per week.

**Weight Bearing:** Non-weight bearing until full 6 weeks after surgery, then progress gradually to full weighbearing. Patient can discontinue crutches when able to fully bear weight.

#### **ROM Goals:**

**Extension:** Full extension **Flexion:** 60 degrees by end of week 6, 90 degrees by end of week 9

#### **Therapeutic Exercise:**

#### Strengthening:

Quadriceps setting Four-way straight leg raising in brace. Open chain calf with theraband **\*\*No open chain hamstring strengthening.** 

#### Manual Therapy:

Patellar mobilization Passive knee flexion Peri-patellar soft tissue mobilization Prone quadriceps stretching to 60 to 90 degrees

### Weeks 10 to 14: Advanced Strengthening:

Brace: Brace can be discontinued.

Weight Bearing: Full weightbearing

#### **ROM Goals:**

Extension: Full extension

**Flexion:** Progress to full, although expect 10-15 degree loss of flexion with multiligamentous knee injuries.

## **Therapeutic Exercise:**

## Strengthening:

Quadriceps setting Four-way straight leg raising in brace. Half squats Step downs Slow progression of multi-plane closed chain exercises **\*\*No open chain hamstring strengthening** 

#### **Proprioception:** Balance activities

**Core strengthening:** Trunk activities Conditioning stationary bike Manual Therapy: Patellar mobilization Passive knee flexion to 125 degrees Peri-patellar soft tissue mobilization Prone quadriceps stretching to 125 degrees Soft tissue flexibility maintenance

## Weeks 14 Plus: Functional Training & Return to Sports:

## **Therapeutic Exercise:**

Strengthening: Progression of multi-plane closed chain activities Proprioception Advanced core strengthening Conditioning: Stationary bike

\*\*\*\*Running straight at 9 to 12 months

Note: Return to sport based on provider team input and appropriate testing.

NOTE: A loss of 10 to 15 degrees of terminal flexion can be expected in complex knee ligament reconstructions. This does not cause a functional problem for patients and is not a cause for alarm.