



# WAYPOINT

## ORTHOPAEDIC ASSOCIATES

### **Multiligamentous Knee Reconstruction Rehab Program**

#### **General Information**

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.**

#### **Pre-operative:**

**Brace:** Usually required at all times

**Weight Bearing:** Full, crutches as necessary

#### **ROM Goals:**

**Extension:** Full

**Flexion:** 135 degrees

**Therapeutic Exercise:** Learn exercises for post-op regimen.

#### **Weeks 0 to 4: Advanced Protective Phase:**

**Brace:** Braced in full extension

**Weight Bearing:** Strict Non-Weight Bearing

#### **ROM Goals:**

**Extension:** Full with posterior leg supported at all times to protect from tibial sag

**Flexion:** 0 degrees

**Therapeutic Exercise:**

**Strengthening:**

Quadriceps setting

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 5 to 8: Early Strengthening:**

**Brace:** Open to 30 degrees week 7,8

**Weight Bearing:** Progress 75% by week 8

**ROM Goals:**

**Extension:** Full with posterior leg supported at all times to protect from tibial sag

**Flexion:** 60 degrees by end of week 6; progressing to 100 degrees by end of week 8

**Therapeutic Exercise:**

**Strengthening:**

Quadriceps setting

Four-way straight leg raising in brace.

Open chain calf with thera-band

**\*\*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 9 to 12: Advanced Strengthening:**

**Brace:** Open to 60

**Weight Bearing:** Full

**ROM Goals:**

**Extension:** Full with posterior leg supported at all times to protect from tibial sag

**Flexion:** Progress to full

**Weeks 9 to 12: Advanced Strengthening Continued:**

**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 12 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.**