

### **Preoperative**

**Brace:** As needed

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

**ROM Goals:**

**Extension:** Full, supported

**Flexion:** 135 degrees

**Therapeutic Exercise:** Learn exercises for postoperative regimen

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

**Brace:** Braced in full extension

**Weight Bearing:** Touch down to 40%

**ROM Goals:**

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

**Flexion:** 60 degrees

**Therapeutic Exercise:**

**Strengthening:**

Quadriceps setting

Three-way leg raises in brace (not flexion)

Functional quadriceps electric stimulation

\*\*No open chain hamstring strengthening

**Manual Therapy:**

Patella and joint mobilization

Passive knee flexion to 60 degrees with anterior tibial force

Peri-patellar soft tissue mobilization

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

### **Weeks 5 to 8: Early Strengthening Phase**

**Brace:** Open to 30 degrees weeks 5 and 6; open to 60 degrees weeks 7 and 8.

**Weight Bearing:** Progress to full by week 8

**ROM Goals:**

**Extension:** Full

**Flexion:** 90 degrees week 6, progressing to 110 degrees by week 8

**Therapeutic Exercise:**

**Strengthening:**

Quadriceps setting  
Four-way Straight leg raising in brace  
Mini squats weeks 7 and 8  
Step downs weeks 7 and 8  
\*\*No open chain hamstring strengthening

**Proprioception:** One leg balance

**Core:** Abdominal and lumbar exercises

**Manual Therapy:**

Patella and joint mobilization  
Passive knee flexion to 90 degrees \*\*with anterior tibial force  
Peri-patellar soft tissue mobilization  
Prone quadriceps stretching to 90 degrees

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

**Brace:** Open

**Weight Bearing:** Full

**ROM Goals:**

**Extension:** Full

**Flexion:** Progress to full

**Therapeutic Exercise:**

**Strengthening:**

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

**Proprioception:** Wobble and BAPS boards

**Core:** Standing trunk activities

**Conditioning:** UBE

**Manual Therapy:**

Patellar mobilization  
Passive knee flexion to 125 degrees with anterior tibial force  
Peri-patellar soft tissue mobilization  
Prone quadriceps stretching to 125 degrees  
Soft tissue flexibility maintenance

**12 Plus Weeks: Functional Training and Return to Sports Phase**

**Brace:** Functional brace worn

**Therapeutic Exercise:**

**Strengthening:**

Sport specific activities begun at 9 months  
Progression of multi-plane closed chain activities

**Conditioning:** Running straight at 6 months

**Proprioception:** Single leg activities

**Advanced Core Strengthening:** Functional standing trunk activities

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

All times and exercises are to serve as guidelines. Actual progress may be faster or slower, depending on each individual patient, as agreed upon by the patient and his/her team of providers.