



# Distal Patellar Realignment

## General Principles:

This protocol was designed to provide the rehabilitation professional with a guideline of postoperative care. It should be stressed that this is only a protocol and should not be a substitute for clinical decision making regarding a patient's progression. Actual progression should be individualized based upon your patient's physical examination, progress, and presence of any complications.

## PHASE I: (Immediate Post-Op)

### Week 1 - 2

#### Orthotics-

1. Knee brace should be worn, locked in full extension at all times except for exercise
2. Brace to be worn during exercise, but may be opened for ROM allowed per protocol during therapy and home exercise program.

#### Weight Bearing-

1. Weight bearing as tolerated with brace locked in full knee extension

#### Modalities (PRN)-

1. Cryotherapy for pain and inflammation
2. Electrical Stimulation
3. After 48 hours, Heat and Ultrasound (Do not perform directly over hardware if present)
4. Neuromuscular Re-Education and/or Biofeedback for VMO firing

#### ROM-

1. ROM from 0-90°

#### Exercises-

1. Ankle Pumps
2. Hamstring, Calf, Iliotibial Band Stretching
3. Quadriceps / Hamstring Sets (Sub-maximal, Sub-painful)
4. Hip Abduction, Adduction Isometrics (Sub-maximal, Sub-painful)
5. Active / AAROM Knee extension (No resistance), short arc progressing to full arc
6. Patella Mobilizations (Superior, Inferior, and Medial glides)
  - a. Instruct patient in self mobilizations

### Week 3 – 4

#### Orthotics-

1. Knee brace should be worn, locked in full extension at all times except for exercise
2. Brace to be worn during exercise, but may be opened for ROM allowed per protocol during therapy and home exercise program.

#### Weight Bearing-

1. Progress weight bearing to full as tolerated using brace locked in full extension

#### Modalities (PRN)-

1. Continue Phase 1 modalities as needed



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## ROM-

1. Progress ROM to full as tolerated

## Exercises-

1. Straight Leg Raises (In brace)  
All planes, start in standing position, progress to supine
2. Multi-angle Isometric Quad strengthening (30° and 60°)
3. Standing / Resisted Calf Raises as Weight Bearing allows
4. Hamstring Curls
5. Weight shifts in Knee Brace

## **PHASE II: (Strengthening)**

### **WEEK 5 - 6**

#### Orthotics-

1. Knee brace should be worn, locked in full extension at all times except for exercise
2. Brace to be worn during exercise, but may be opened for ROM allowed per protocol during therapy and home exercise program.

#### Weight Bearing-

1. Continue full weight bearing as tolerated using Knee brace at all times

#### Modalities (PRN)-

1. Continue Phase 1 modalities as needed

## ROM-

1. Active and Passive ROM progressing to full as tolerated

## Exercises-

1. Straight Leg Raises  
May add resistance as tolerated
2. Multi-angle Isometric Quad strengthening (30°, 60°, and 90°)
3. Stationary Bicycle, No resistance
4. Multi-Hip Machine, all planes as tolerated
5. Hamstring Curls (0 - 90°)
6. Active Knee extension (No resistance)
7. At the beginning of **Week 6**, Initiate Closed-Chain Active exercise / strengthening (Monitor Patella-femoral pain)
  - Mini-Squats (0 - 30°)
  - Wall Sits
  - Step Ups
  - Standing Terminal Knee Extension
  - Leg Press (70 to 10°)
8. Single leg balancing
9. Aquatic Therapy



# Distal Patellar Realignment

## Week 7 – 10

### Orthotics-

1. Physician will transition patient to PTO brace for daily activities and exercises

### Weight Bearing-

1. Continue full weight bearing in brace as tolerated

### Modalities (PRN)-

1. Continue Phase 1 modalities as needed

### ROM-

1. Maintain full active and passive ROM

### Exercises-

1. Resisted Knee extension (90° - 30)
2. Add resistance to Stationary Bicycle
3. May initiate Aquatics when incision healing allows

## Week 11 – 14

### Orthotics-

1. May discontinue knee brace with good gait and quad control for daily activity
2. Continue use of PTO brace for sports activity

### Weight Bearing-

1. Full weight bearing as tolerated

### Exercises-

1. Isokinetics (240 to 300 degrees/second)  
Limit extension  
Monitor patella-femoral precautions
2. Progress to aggressive lower extremity strengthening
3. May initiate straight ahead Jogging with Physician approval

## PHASE III: (Advanced Strengthening)

### Week 15+

#### Exercises-

1. Isokinetics (180-300 degrees/second)
2. Initiation of light sports activity  
See Interval Golf and Interval Running programs
3. Isokinetic Test at 180, 240, and 300 degrees/second for MD review for full release to sport activity