

# Hays Medical Center

## Patella Dislocation

### General Principles:

This protocol was designed to provide the rehabilitation professional with a guideline of 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.

This protocol was developed for both post-operative and non-operative management of patellar dislocations. Specific sections of this protocol will differ based on their surgical status.

### PHASE I: (Immediate)

#### Week 1

##### Orthotics-

1. Knee Immobilizer at all times other than for exercises

##### Weight Bearing-

1. Touch Weight Bearing using 2 crutches

##### Modalities (PRN)-

1. Ice, compression, and elevation as needed
2. Electrical stimulation for pain or muscle re-education
3. Ice for 20 minutes following exercises throughout the protocol
4. Moist heat and/or Pulsed Ultrasound after 48 hours

##### ROM-

1. **Post-Op patients:**
  - a. Gravity-assisted ROM from 0 to 45° flexion only
  - b. NO Active knee extension
2. **Non-Op patients:**
  - a. Progress ROM exercises from 0 to 90° flexion only
  - b. NO Active knee extension

##### Exercises-

1. Hamstring, Calf, and IT Band stretching
2. Quad sets, Hamstring sets
3. Ankle pumps
4. Straight leg raises
  - a. Standing position ONLY
  - b. NO resistance
  - c. Must be performed in knee immobilizer

# Patella Dislocation

## PHASE II: (Intermediate)

### Week 2 – 4

#### Orthotics-

1. Knee Immobilizer at night and for all weight bearing activities
2. Patellar stabilizing orthotic may be prescribed per physician

#### Weight Bearing-

1. Weight Bearing as tolerated using Knee Immobilizer at all times

#### Modalities (PRN)-

1. Continue Phase I modalities as needed

#### ROM-

1. At the start of **Week 4:**

##### **Post-Op patients:**

- a. May progress ROM exercises to 0 to 90° as tolerated
- b. NO Active knee extension

2. At the start of **Week 3:**

##### **Non-Op patients:**

- a. May progress ROM to full as tolerated
- b. NO Active knee extension

#### Exercises-

1. Progress Phase I exercises as tolerated
2. Proprioception / Weight shifting exercises
  - a. In knee immobilizer
  - b. Bilateral, progress to unilateral
3. Progress Straight Leg Raises to supine / lying
  - a. NO resistance
  - b. May progress out of knee brace for SLRs as strength allows
4. Neuromuscular Re-education as needed

## PHASE III (Strengthening)

### Week 5 – 8

#### Orthotics-

1. Should be progressing to patellar stabilizing orthotic for all activities

#### Weight Bearing-

1. Weight Bearing as tolerated using orthotic

#### ROM-

1. **Post-Op patients:**

- a. May progress ROM exercises to full as tolerated

2. **Non-Op patients:**

- a. Attain / Maintain full active and passive knee ROM

# Patella Dislocation

## Exercises-

1. Progress Phase II exercises as tolerated
2. May add resistance to Straight Leg Raises as tolerated
3. Stationary Bicycle / Nu-Step
  - a. Progress resistance and duration as tolerated
4. Shuttle / Leg Press
  - a. Bilateral, progress to Unilateral
  - b. Progress resistance
5. When patient's reach 0 to 120° of pain-free Active ROM, progress to:
  - a. Open Chain exercises, progress resistance as tolerated
    1. Short-arc Quads, progress to Long-arc
    2. Long-arc Hamstrings
  - b. Closed Chain exercises, progress as tolerated
    1. Terminal Knee Extensions, Mini-Squats, Step Ups, etc

## **PHASE IV (Advanced Strengthening)**

### **Week 9 – 12**

#### Orthotics-

1. May discontinue brace for daily activities only with physician approval
2. Continue functional brace for high risk activity and exercise until notified by physician

#### Exercises-

1. Progress Phase III exercises as tolerated
2. Progress to aggressive full-arc strengthening Isotonic strengthening
3. Isokinetics
  - a. Limit extension to -20° initially
  - b. Start with 240 to 300 degrees per second
  - c. Progress to 180 to 300 degrees per second as tolerated

### **Week 13+**

#### Exercises-

1. Progress Phase III exercises as tolerated
2. May initiate straight-ahead jogging
3. Initiation of light sports activity
  - a. Plyometrics
  - b. Shuttle Bounding
  - c. Sport specific agility
  - d. See Interval Golf and Interval Running programs
  - e. DIME warmup
4. Criteria to be released for return to sport
  - a. Isokinetic test at 180, 240, and 300 degrees per second for physician review (Goal: 90% strength or better)
  - b. Lower extremity functional tests at 90% or better (See Lower extremity functional test protocol and form)