



Indiana University Health

IU Health Physicians Orthopedics & Sports Medicine

PATELLAR DISLOCATION (NON-OP) - ACCELERATED

NON-OP PHYSICAL THERAPY PROTOCOL

Bryan M. Saltzman, M.D.

Indiana University Health Physicians

Assistant Professor of Orthopaedic Surgery, Indiana University

Sports Medicine, Cartilage Restoration, Shoulder/Elbow

IU Health Methodist Hospital – 1801 N Senate Ave, Indianapolis, IN 46202

IU Health North – 201 Pennsylvania Pkwy #100, Carmel, IN 46280

317-944-9400

www.bryansaltzmanmd.com

Patient Name: _____ **Date:** _____

Evaluate and Treat

Provide patient with home program

Frequency: 2-3 x/week x 6 weeks



Phase I: Weeks 0-2

- ROM:
 - Weeks 0-1: Locked in extension at all times
 - Weeks 1-2: Gradually increase flexion based on tolerance. Obtain full ROM by weeks 4-6.
 - Early emphasis on maintaining full extension
 - Low load long duration stretching for extension with head if needed
 - Towel roll extensions
 - Prone leg hangs
 - Gentle patellar mobilizations – avoid lateral patellar glides
- Weightbearing and brace use:
 - WBAT in hinged knee brace
 - Transition to patellar stabilization brace when able to perform 30 SLR in full extension without lab or brace on.
- Modalities:
 - Cryotherapy for 15minutes, 3x daily
 - NMES for quadriceps
- Exercises:
 - Gentle strengthening exercises only if they can be performed pain free.
 - Initiate functional closed kinetic chain exercises with strengthening from terminal extension to mid-range flexion. Isolate gentle sub-max open kinetic chain exercise from mid-range flexion to 0° and light isotonic open kinetic chain exercises 90° to 45°.
 - Adductor squeezes, SLE, closed kinetic chain knee extension, multiangle isometrics at 20° increments
 - Gentle short arc 0° to 30° for quadriceps
 - Light isotonic open kinetic chain exercises 90° to 45°
 - Closed kinetic chain exercises of weight shifting, partial wall squats
 - Gastroc/Soleus strengthening
 - Balance/proprioception exercises, double leg progressing to single leg
 - Core stability and upper body exercises

Phase II: Week 2-4

- Goals:
 - Minimize effusion
 - Return to full ROM
 - Improve muscle strength and endurance
- Weightbearing and brace use:
 - WBAT
 - Patellar stabilization brace for exercises and long-distance ambulation
 - Normalize gait
- ROM:
 - Full by 4-6 weeks
- Exercises:



- As above plus:
- Active warm-up: Bike, elliptical, treadmill walking
- Strengthening and endurance exercises pain free. Respect the patellofemoral joint reaction forces that increase with knee flexion angles during closed kinetic chain exercises.
- Incorporate total leg strengthening exercises, avoiding dynamic valgus angles during strengthening and functional activities.
 - Hip abductor and external rotator strengthening
 - Adductor squeeze, SLR, closed kinetic chain knee extension
 - Quadricep open kinetic chain isotonic short arc with progression to full ROM
 - Hamstring isotonics
 - Closed kinetic chain exercises: progress from mid-ROM to full ROM: leg press, step ups, partial lunges to full lunges, lateral step overs, side step with theraband, partial squats progressed to 90° squats
 - Gastroc/Soleus strengthening
- Balance/proprioception
- CV conditioning
- Core Stabilization

Phase III: Week 4+

- Goals:
 - Progress muscle strength, endurance, and balance activities
 - Progress to high level activities depending on functional demands
- Weightbearing and brace use:
 - WBAT
 - Patellar stabilization brace for exercises and sports until week 12
- Exercises:
 - As above plus:
 - Active warm-up: Bike, elliptical, treadmill walking
 - Strengthening and endurance exercises as above. May progress as tolerated.
 - Dynamic balance exercises
 - Impact activities if patient has 75% strength on closed kinetic chain resting
 - Initiate running program
 - Agility drills
 - Plyometrics
 - CV conditioning
 - Core Stabilization

Phase IV: Return to sport

- Criteria to return to sports and to d/c brace
- Functional testing between 4-6 weeks if
 - Full Active ROM



- No effusion
- No pain at rest or activity
- Quadriceps and hip external rotators strength >90% contralateral side
- Satisfactory clinical exam
- Functional hop test > 90% contralateral side
- Completion of running program

By signing this referral, I certify that I have examined this patient and physical therapy is medically necessary. This patient would X would not benefit from social services.

Date: _____

Bryan M. Saltzman, MD