



Indiana University Health

IU Health Physicians Orthopedics & Sports Medicine

PCL TEAR (NON-OP)

NON-OP PHYSICAL THERAPY PROTOCOL

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Patient Name: _____ **Date:** _____

X Evaluate and Treat

X Provide patient with home program

Frequency: 2-3 x/week x 4 weeks

Precautions:

- Avoid greater than 90° of knee flexion for the first 6 weeks post injury.
- If greater than 90° of knee flexion is performed, this MUST be done with an anterior drawer force to prevent posterior subluxation.
- Posterior knee pain may mean the patient is progressing too quickly.

**Guidelines:**

- Rehabilitation must be highly individualized.
- Quadriceps strength is related to return to sport and patient satisfaction.
- Protect the patellofemoral joint.
- Avoid open-chain knee flexion exercises. Utilize closed-chain exercises to enhance function of hamstrings.
- Early considerations: Quadriceps sets, straight leg raises, biofeedback, electrical stimulation for quads.

Phase I: Day 0-10

- Range of motion: 0 – 60°
- Effusion Control: Ice, elevation, NSAIDs
- Gait/Weightbearing: Protected weightbearing (50%) with crutches locked in extension.
- Exercise:
 - Isometric quadriceps when pain permits
 - Avoid open chain hamstring strengthening exercises

Phase II: Day 10-21

- Range of motion: Early range of motion within limits of pain: Active-assisted and passive range of motion less than 60°. Can increase to 90° of knee flexion, but this MUST be done with anterior drawer force protecting the knee.
- Effusion control: Ice, elevation, NSAIDs, electrical stimulation.
- Gait/Weightbearing: Weight bearing as tolerated with knee brace locked in extension.
- Discontinue crutches when patient is able to and the effusion is controlled.
- Exercise:
 - Isometric quadriceps when pain permits
 - Leg press 0-60°
 - Avoid open chain hamstring strengthening exercises
- Avoid posterior tibial subluxation: Place a pillow under posterior aspect of lower leg when lying down.

Phase III: Weeks 3-5

- Range of motion: Progress as tolerated.
- Effusion control: Ice, elevation, NSAIDs, electrical stimulation
- Gait/Weightbearing: Weightbearing as tolerated.
- Discontinue the large hinged knee brace as tolerated.
- Obtain a functional PCL brace.
- Exercise/Functional Training:
 - Focus on increasing strength and endurance of quadriceps.
 - Open chain knee extension exercises allowed IF no patellofemoral symptoms
 - Quadriceps sets and terminal knee extension.
 - May perform hip extension with knee extension.
 - No hamstring exercises with knee flexed.
 - Bike



- Mini-squats 0-60°
- Leg press 0-60°
- Continue anterior drawer with knee flexion as above.

Phase IV: Weeks 5-8

- Range of motion: Monitor
- Effusion: Monitor
- Gait/Weightbearing: As tolerated.
- Exercise/Functional Training:
 - Closed chain exercises to improve functional strength:
 - Mini squats
 - Wall slides
 - Step ups and leg press
 - Isotonic quadriceps progressive resistance exercises.
 - Proprioceptive training follows strengthening: Slide board

Phase V: Weeks 8-12

- Begin a running program
- Gradual return to sport specific training Return to sports criteria:
- Full pain-free knee extension
- Full pain-free knee flexion
- Quadriceps strength > 85% of contralateral side
- Continue PCL brace until full return to play with no effusion (remainder of season)

Frequency: _____x/week x _____weeks

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

Date: _____

Bryan M. Saltzman, MD