



PCL Non-Operative Rehabilitation Protocol

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Goals:

- Promote tissues healing
- Decrease pain
- Decrease effusion
- Increase strength, endurance and power
- Improve proprioception and enhance dynamic stability
- Reduce functional limitations and disability

Treatment:

Non-operative treatment usually with isolated PCL injury

ROM: Knee flexion $<90^\circ$ 0-6 weeks post injury; if $> 90^\circ$ MUST be done with anterior drawer (until full ROM)
Posterior knee pain may mean patient is progressing too fast

Guidelines: Must be highly individualized!!

Quad strength related to return to sport and patient satisfaction

Protect PF joint

Avoid OKC knee flexion, utilize CKC exercises to enhance function of hams

Early considerations: QS, SLR, Biofeedback, ES for quads

Muscle function:

Open chain extension: 90° - 60° and 20° - 0°

Closed chain: mini-squats, wall slides, step-ups, leg press/squat



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Day 0-10: Without meniscus injury

ROM:

Progress as tolerated, no OKC hamstrings

Effusion:

Ice, elevation, NSAIDS, ES

Gait/WB:

WBAT with assistive device as needed and brace (brace may need extension stop)

Exercises:

Isometric quads when pain permits

Cautions:

Avoid OKC hamstrings



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Day 10-21:

ROM:

Early ROM within limits of pain: AA/PROM <90° or if >90° MUST be done with anterior drawer

Effusion:

Ice, elevation, NSAIDS, ES

Gait/WB:

Progress to WBAT knee brace locked (toward full extension as tolerated)

Criteria to D/C crutches: pain controlled, effusion controlled

Criteria to D/C brace: good quad control

Exercises:

Isometric quads when pain permits

Cautions:

Important to avoid posterior tibial subluxation

Pillow under posterior aspect of lower leg when lying down

Avoid isolated OKC hamstring exercise

Weeks 3-4:

ROM:

Progress as tolerated, no OKC hams, continue anterior drawer with flexion ROM

Effusion:

Ice, elevation, NSAIDS, ES

Gait/WB:

Begin SLB activities as tolerated

Exercises/Functional Training:

Focus on increasing strength/endurance of quads

OKC knee extension allowed as long as PF joint without symptoms

Light resistance

Quad sets and terminal knee extension

No hamstring exercises with knee flexed, may do hip extension with knee extension

Weeks 4 and beyond:

ROM:

Monitor

Effusion:

Monitor

Gait/WB:



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Progress SLB activities as tolerated

Exercises/Functional Training:

CKC exercises to improve functional strength:

- Mini-squats
- Wall slides
- Unilateral step-ups
- Leg press
- Isotonic quad PRE

Proprioceptive training follows strengthening: slide board

Return to Sports when:

Pain free full knee extension

Full ROM

Quad strength >85% of uninjured leg per Biodex testing

Continue PCL brace until full return to play with no effusion (remainder of season)

Monitor posterior drawer test (soft to firm to hard over 8-10 weeks)

Inform patient that they have abnormal laxity of the knee that will persist