



PCL TEAR (NON-OP) NON-OP PHYSICAL THERAPY PROTOCOL

Patient Name: _____ Date: _____

_____ Evaluate and Treat _____ Provide patient with home program

Frequency: _____ x/week x _____ weeks

Phase I: 0 - 6 Weeks

Precautions:

- PRICE (Protect, Rest, Ice, Compress, Elevate) protocol
- Avoid hyperextension (12 weeks)
- Prevent posterior tibial translation (12 weeks)
- Isolated hamstring exercises should be avoided until week 12
- Partial WB with crutches (2 weeks)
- Prone passive ROM from 0-90 degree for the first 2 weeks, and then progress to full ROM
- PCL Jack brace or Rebound brace to be worn at all times, including rehabilitation and sleep (minimum of 12 weeks)

Goals

- PCL Ligament protection
- Edema reduction to improve passive ROM and quadriceps activation
- Address gait mechanics
- Patient education

Therapeutic exercise

- Patellar mobilizations
- Prone passive ROM
- Quadriceps activation
- Quadriceps sets
- Straight leg raises (SLR) once the quadriceps are able to lock joint in terminal extension and no lag is present
- Gastrocnemius stretching
- Hip abduction/adduction
- Stationary bike with zero resistance when ROM < 115 degree
- Weight shifts to prepare for crutch weaning
- Pool walking to assist with crutch weaning
- Calf raises and single leg balance when weaned from crutches
- Upper body and core strength as appropriate

Phase II: 6 – 12 Weeks

Precautions

- Continued avoidance of hyperextension
- Prevent posterior tibial translation
- Limit double leg strengthening exercises to no more than 70 degree of knee flexion
- WBAT
- Full ROM, supine and prone ROM after 6 weeks
- PCL Jack brace or Rebound Brace to be worn at all times

Goals

- PCL ligament protection
- Full ROM
- Address gait mechanics during crutch weaning
- Double leg strength through ROM (no greater than 70 degree knee flexion) and single leg static strength exercises
- Reps and set structure to emphasize muscular endurance development (3 sets of 20 reps)

Therapeutic exercise

- Continue PRICE protocol
- Continue exercises as weeks 1-6
- Gastrocnemius and light HS stretching
- Leg press limited to 0-70 degree of knee flexion
- Squat progression
- Static lunge
- HS bridges on ball with knees extended
- Progressive resistance stationary bike
- Light kicking in pool
- Incline treadmill walking (7-12% incline)
- Single leg dead lift with the knee extended
- Proprioceptive and balance exercises

Phase III: 12-18 Weeks

Precautions

- Discontinue PCL Jack brace

Goals

- Reps and set structure to emphasize muscular strength development
- Progress ROM strength to beyond 70 degree knee flexion
- Isolated HS exercises may begin after week 12
- Prepare athlete for sport-specific activity

Therapeutic exercise

- Double leg press with progression to single leg
- Single leg knee bends
- Balance squats
- Single leg dead lift
- Single leg bridges starting during week 16
- Continue bike and treadmill walking
- Running is allowed once the patient has demonstrated sufficient strength and stability with functional exercise and quad girth is $\geq 90\%$ compared to the contralateral normal side
 - Week 1 = 4 min walk; 1 min jog for 15-20 min
 - Week 2 = 3 min walk; 2 min jog for 20 min
 - Week 3 = 2 min walk; 3 min jog for 20 min
 - Week 4 = 1 min walk; 4 min jog for 20 min
- Once running progression is completed, continue single plane agility with progression to multi-planar agility
- Clinical examination and/or PCL stress radiographs to objectively verify healing of PCL after week 15

This protocol is adopted from Pierce CM, O'Brien L, Griffin LW, LaPrade RF. Posterior cruciate ligament tears: Functional and postoperative rehabilitation. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013; 21(5): 1071-1084. <http://doi.org/10.1007/s00167-012-1970-1>

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.

Physician Name: _____

Date: _____