

## Sports Injury and Joint Replacement Surgery for the Hip and Knee

# NON-OPERATIVE PCL PROTOCOL

### Phase I - 0-6 weeks:

#### Precautions:

- RICE
- No hyperextension 12 weeks
- No posterior tibial translation 12 weeks
- PWB with crutches 2 weeks
- Prone passive ROM 0-90° 1st 2 weeks then full ROM
- PCL Jack brace at all times including rehab and sleep for 12 weeks

#### Goals:

- PCL ligament protection
- Oedema reduction
- Gait mechanics addressed
- Patient education

#### Therapeutic Exercise:

- Patella mobilisations
- Prone passive ROM
- Quads activation
- Gastrocnemius stretching
- Hip abduction/adduction
- Stationary bike with 0 resistance when ROM >115°

### Phase II - Post-Operative Weeks 6 to 12:

#### Precautions:

- No hyperextension 12 weeks
- No posterior tibial translation 12 weeks
- WBAT
- Full supine and prone ROM after 6 weeks
- PCL jack brace all times 12 weeks

#### Goals:

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

#### Therapeutic Exercise:

- RICE
- Same exercises as weeks 1-4
- Gastrocnemius and light hamstring stretching
- Leg press limited 0-70° of knee flexion
- Progressive squats
- Static lunge
- Hamstring bridges on ball with knees extended
- Progressive resistance stationary bike
- Light kicking in pool
- Incline treadmill walking
- Single leg dead lift with knee extended
- Proprioceptive and balance exercises

### Phase III - Post-Operative Weeks 13-18:

#### Brace:

- Discontinue Jack brace at 12 weeks

#### Goals:

- Reps and set structure to emphasize muscular strength development
- Progress ROM strength to beyond 70° knee flexion
- Prepare athlete for sport-specific activity
- Clinical exam/PCL stress x-ray to verify PCL healing after week 15

#### 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
  - » Allowed once sufficient strength and stability developed with functional exercise and quads girth >90% of contralateral normal side
  - » Outline
    - ♦ Week 1 : 4 min walk; 1min jog for 15-20min
    - ♦ Week 2: 3 min walk; 2 min jog for 20 min

- ♦ Week 3: 2 min walk; 3min 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

## Phase IV - Post-Operative Weeks 19+:

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### Goals:

- Continue exercises and protocol from weeks 13-18
  - » Sets and reps structure to emphasize power development
  - » Sport specific agility exercises
  - » Non-contact RTP following clearance from surgeon
  - » Full contact RTP when specific criterion met:
    - ♦ Full active ROM
    - ♦ >90% normal quads strength
    - ♦ No instability
    - ♦ >90% function on RTP sport testing
    - ♦ Athlete mentally ready to RTP and not fearful of reinjury

### Reference:

Pierce CM, O'Brien L, Griffin LW, LaPrade RF. Posterior cruciate ligament tears: functional and postoperative rehabilitation. *Knee Surgery, Sports Traumatology, Arthroscopy*. 2013 May;21(5):1071-84.

## Do you still have a question about your recovery that has not been answered within this document?

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Please contact Dr Awwad's office prior to your surgical date at: [awwadadmin@orthosa.com.au](mailto:awwadadmin@orthosa.com.au)

Sometimes we may miss a question that is important to you. If so, please feel free to email us your feedback so that we can improve our service to you and future patients – [awwadadmin@orthosa.com.au](mailto:awwadadmin@orthosa.com.au)



### Dr George Awwad

MBBS, FRACS (ORTH), FA ORTHA

Orthopaedic Surgeon

APPOINTMENTS AND ENQUIRIES

P 08 8267 8243 E [awwadadmin@orthosa.com.au](mailto:awwadadmin@orthosa.com.au)

W [www.drgeorgeawwad.com.au](http://www.drgeorgeawwad.com.au)

Ask **Dr Awwad** to clarify your restrictions prior to surgery to avoid disappointment.