

Dr Kumar ACL Protocol

Revised 6th April 2020

Prehab (STAGE 0)

- quadriceps/VMO strengthening
- active knee ROM
- pelvic stability
- lower limb kinetic chain activation
- core strengthening
- cardiovascular fitness
- aim >90% quad strength c/w contralateral leg with full, pain-free ROM and no/minimal joint effusion

0-2 weeks (STAGE 1)

- WBAT with crutches for support only ('training wheels')
- full passive/active ROM
- isometric quads/hamstring contraction through ROM (VMO focus)
- stationary bike at 1 week, no resistance
- regain coordinated muscle function
- pelvic stability (SLR in IR/ER/ABd/Add)
- core strengthening
- hamstring stretching

2-6 weeks (STAGE 2)

- stationary bike, progressively lowering seat to increase knee ROM
- pool for deep water jogging or Alter G if available
- aim for pain free ROM, gait normalisation and discard crutches by the end of 6 weeks

6 weeks-3 months (STAGE 3)

- co-contraction exercises increased through body weight resistance training (squats, lunges, therabands)
- increase stationary bike resistance as tolerated
- focused stretching program for entire lower limb kinetic chain
- pool **with no** fins/flippers



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Integrated Orthopaedic Management

Dr Jai Kumar FAOrthA
P: 40472347 F: 40472340
E: office@theorthoclinic.com.au

3-6 months (STAGE 4)

- commence open chain quads/hamstrings
- gym-based resistance training (low resistance, high reps – progressing to increased resistance at therapist discretion)
- commence straight line jogging, standard bike
- pool **with** fins/flippers (no restrictions)

6-12 months (STAGE 5)

- progress to dynamic co-contractions (weighted step lunges, SL squats)
- incorporate sport specific training drills (non-competitive)
- increase cardiovascular fitness
- integration of PEP (Prevent Injury, Enhance Performance) program, focused on movement quality and proper positioning
 - Warm-up
 - Stretching
 - Strengthening (see NCAA PEP Program, YouTube)
 - Plyometrics
 - Agilities

12+ months (STAGE 6)

- progressive return to play
 - competitive training
 - low grade play (ie, reserve grade)
 - return to pre-injury function
- push endurance, power and proprioception
- ensure patient subjective confidence in knee

Timing of Dr Kumar's Post-Operative Appointments

- **2 weeks (Clinical Nurse Specialist)**
- **8 weeks**
- **6 months**
- **1 year (if required)**