



## POST-SURGICAL ACL REHABILITATION PROTOCOL:

This is an outline of the major exercises that are commonly incorporated. Individual patient response should be considered and therefore modifications may need to be made. Communication should be made to the Surgeon if concerns arise during rehabilitation.

The overall goals of the reconstruction and rehabilitation are to:

- Control joint pain, swelling, hemarthrosis (minimal or none).
- Regain normal knee flexion and extension.
- Regain a normal gait pattern and neuromuscular stability for ambulation.
- Regain normal quadriceps, hamstring lower extremity muscle strength.
- Regain normal proprioception, balance, and coordination for desired activities.
- Achieve optimal functional outcome based on orthopaedic and patient goals.

## POST-OP DAYS 1 - 7 (20REPS)

### GOALS:

- ✓ Pain reduction.
- ✓ Full passive extension.
- ✓ Flexion to 90 degrees.
- ✓ Good quad control.
  - o Ankle toe movements/ calf pumping.
  - o Isometric quads.
  - o Gradually pain free passive assisted knee bending 60-90 degrees.
  - o Passive knee extension.
  - o Straight leg raise (SLR).
  - o Abduction and adduction ROM at hip.
  - o Ice Pack application 15mins every 3hours with knee in full extension, compression and elevation.
  - o Walking on walker with long knee brace accordingly.

## DAYS 8 – 14 (20REPS)

### GOALS:

- ✓ ROM 0-120 degrees.
- ✓ No effusion.
- ✓ No extensor lag.
  - o Ice application as prescribed.
  - o No active hamstring exercise.
  - o Active knee bending 90- 120 degrees.
  - o Active knee extension.
  - o Active dynamic knee extension edge of the bed (90-0 degrees).
  - o Isometric quads and dynamic VMO strengthening.
  - o SLR
  - o Glutes, hip abductor and adductors strengthening.
  - o Heel and toe raises.
  - o Walking with tripod stick support.
  - o Staircase climbing.

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## WEEKS 2 – 5 (accordingly)

### GOALS:

- ✓ Full painless ROM.
- ✓ Normal Gait.
  - o Active full range knee bending.
  - o Co-contraction quads and hamstring.
  - o Continue appropriate previous exercises.
  - o Mini squats and wall squats 0-45degrees.
  - o Standing SLR and hip movements with light Theraband bilaterally.
  - o Forward, lateral and retro step downs in parallel bars
  - o Walking without support with hinge knee brace.

## WEEKS 6 – 9

### GOAL:

- ✓ Walk 2 miles at 15 min/mile pace
  - o D/C Brace.
  - o Continue appropriate previous exercises.
  - o Wall squats 0-90 degrees.
  - o Proprioceptive training – Single leg BAPS, ball toss and body blade.
  - o Stationary bike – 10-15 minutes at a time.
  - o Treadmill – Walking progression program.
  - o Elliptical trainer.
  - o Pool therapy – Walking / running (no kicking)

## WEEKS 9 – 12

### GOAL:

- ✓ Walk 3 miles at 15 min/mile pace
  - o Continue appropriate previous exercises with progressive resistance
  - o Fitter
  - o Slide board
  - o Proprioceptive training – Grid exercises
  - o Functional activities – Figure 8s, gentle loops, large zigzags
  - o Stairmaster – Small steps
  - o Pool therapy – No swimming laps
  - o Quad stretches

## MONTHS 3 – 4

### GOAL:

- ✓ Run 2 miles at easy pace.
  - o Isokinetic testing at 180 and 300 degrees/sec.

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Let's Begin to Live Again...

- Must have 80% of opposite leg to clear for straight line running.
- Continue appropriate previous exercises.
- Knee extension weight machine.
- Short arc quads.
- Agility drills / Plyometrics.
- Treadmill – Running progression program if cleared.
- Pool therapy – Swimming laps.

## MONTHS 4 – 6

### GOAL:

- ✓ Return to all activities.
  - Repeat Isokinetic testing as needed.
  - Continue appropriate previous exercises.
  - Sit-up progression.
  - Running progression to track.
  - Transition to home / gym program.

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