



Anterior Cruciate Ligament Reconstruction Rehabilitation

Phase I: Immediate postoperative phase (days 1–7)

Goals

- Work toward passive extension
- Restore patellar mobility
- Reestablish active quadriceps contraction
- Partial weight-bearing (50%)

Brace/Modalities

- Postop knee brace set at 0°–90° flexion
- Cryotherapy
- Myostimulation

Exercises

- Ankle pumps, straight leg raises
- ROM: Gentle progressive passive range of motion aiming for 0° – 90° at 1 week; Heel slides
- Quad and hamstring isometrics progress to light closed kinetic chain exercises
- Independent home exercises above, 4 times / day

Phase II: Early Phase (weeks 2–4)

Goals

- Work toward passive extension
- Restore patellar mobility
- Reestablish active quadriceps contraction
- Full weight-bearing at 2 weeks

Brace/Modalities

- Postop knee brace set at 0°–120° flexion (discontinue at 3 weeks)
- Myostimulation

Exercises

- Ankle pumps, straight leg raises
- ROM: Gentle progressive passive range of motion aiming for 0° – 120° at 4 weeks
- Progress to light closed kinetic chain exercises: gentle squats/leg press
- Stationary bike with no resistance
- Independent home exercises above, 4 times / day

Phase III: Intermediate Phase (weeks 5–12)

Goals

- Restore full ROM by end of week 6
- Improved strength
- Enhance proprioception/balance

- Improve muscular endurance
- Add core strengthening

Exercises

- Ankle pumps, straight leg raises
- ROM: Restore motion from 0°–120° flexion by 4 weeks, 0°–130° by 6 weeks; **avoid flexion greater than 130°**
- Continue stationary bike with gradual increase in resistance
- Gradual progressive resistive exercises for quad, hamstring, and hip strengthening from 0°–90° (avoid open chain exercises); and core strengthening along with gentle side lunges, bands, and stairstepper
- Neuromuscular proprioception: Tilt or, squats, light plyometrics @ week 8–10
- Light jogging at 10–12 weeks

Phase IV: Functional Phase (weeks 13–24)

Goals

- Normalize strength
- Enhance power and endurance
- Improve neuromuscular control
- Begin light sports specific drills
- Independent home program

Exercises

- Progressive resistive exercises as tolerated for knee, hip, and ankle
- Progress running program as tolerated
- Initiate agility exercises

Phase V: Return to participation (weeks 25–32)

Criteria:

- Minimal pain
- No swelling
- Full range of motion
- Exam: Negative Lachman, negative pivot shift; less than 2 cm side-to-side difference in quad girth
- Quad strength greater than or equal to 85% of normal side
- Single leg squat greater than 60% of normal side
- Successful single-leg hop test
- Clearance by Dr. Angelo