

**ACL Reconstruction**  
**POST-OPERATIVE PHYSICAL THERAPY PROTOCOL**

**Diagnosis: ACL tear**

**Frequency: 2-3 visits/week    Duration: 4 months**

**ACL graft used: BTB autograft / Hamstrings autograft / Allograft**

Brace used Yes / No

**Pre-Op**

- Physical Therapy 2 weeks prior to surgery, insure full ROM, increase quad/hamstring strength, normalize gait
- Schedule a doctor visit for 14 days after surgery
- Schedule a PT visit for 2 days after surgery

**Week 1**

- Ankle pumps every hour
- Quad sets & SLR (brace on if used) with no lag
- 50% PWB to WBAT with crutches
- Ice or Cryocuff Unit on knee for 20-30 minutes every hour
- Pillow or towel roll under heel passive knee extension exercise
- Passive ROM exercises only if done with therapist present (brace off if used): Goal: 0 to 90 degrees.

**Week 2**

- May d/c crutches when gait is no longer antalgic
- Supervised PT 2- 3 times a week (may need to adjust based on insurance)
- Continue SLR's, quad isometric sets, ankle pumps
- Passive knee extension with towel roll under heel
- Patellar mobilization exercises

- Continue to use crutches when out of home
- Flexion exercises seated AAROM
- Stationary bike for range of motion (short crank or high seat, no resistance)
- Hamstring and calf stretching
- Mini-squats and weight shifts
- Hip strengthening
- Isotonic leg press (0 - 90 degrees), heel raises

Goal: 0 - 100 degrees

### **Week 3**

- Continue with above exercises/ice treatments
- Perform scar massage aggressively
- AAROM (using good leg to assist) exercises (4-5x/ day)
- Emphasis full passive extension
- Progressive SLR program for quad strength - start with 1 lb, progress 1 -2 lbs per week
- Theraband standing terminal knee extension
- Single leg standing
- Half squats (0-40 degrees)
- Hamstring PREs
- Double leg balance on tilt boards
- Seated leg extension (90 to 40 degrees) against gravity with no weight
- Add ball squats

Goal: 0 to 115 degrees, walking with no limp

- Add water exercises if desired (and all incisions are closed and sutures out)

### **Week 4**

- Continue all exercises
- Continue ROM stretching and overpressure into extension
- Initiate retro treadmill with 3% incline (for quad control)
- Wall and/or ball squats
- Heel raises
- 4-6 inch front step-ups
- Regular stationary bike if Flexion > 115°
- SLR's - in all planes with weight

Goal: 0 to 130 degrees

### **Week 5**

- Continue above exercises
- Self ROM 4-5x/day using other leg to provide ROM, emphasis on maintaining 0° passive extension
- 8 inch step ups
- 4 inch step down
- Lateral step out with therabands
- Retro treadmill progressive inclines
- Sport cord (bungee) walking
- Stairmaster machine
- Increase resistance on stationary bike

**Week 6**

- Continue above exercises
- Brisk walking
- Progress balance and board throws
- 4 inch step downs
- Swimming allowed, flutter kick only

**Week 7-9**

- Should have normal ROM (equal to other side)
- Bike outdoors, level surfaces only
- Start slide board
- 6-8 inch step downs

**Week 10**

- Begin resistance for open chain knee extension
- Plyometric leg press
- Jump down's (double stance landing)
- Progress to light running program and light sport specific drills if:
  - Quad strength > 75% contralateral side
  - Active ROM 0 to > 125 degrees
  - Functional hop test >70% contralateral side
  - Swelling < 1cm at joint line
  - No pain
  - Demonstrates good control on step down

**Week 11-22**

- If full ROM, quad strength > 80% contralateral side, functional hop test >85% contralateral side, satisfactory clinical exam:
  - Progress to home program for running. Progress to hops, jumps, cuts and sports specific drills. Begin to wean from supervised therapy.

**4-5 Months**

- Criteria to return to sports
  - Full Active ROM
  - Quadriceps >90% contralateral side
  - Satisfactory clinical exam
  - Functional hop test > 90% contralateral side
  - Completion of ACL running program