

**ACL Rehabilitation**  
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**Phase 1: 0-4 weeks**

**Goals**

- Protect graft
- Control inflammation and swelling
- Early range of motion (ROM) with emphasis on full extension and patellar mobilizations
- Restore normal gait on level surfaces

**Brace**

- TROM immobilizer locked in extension for ambulation and sleeping
- Unlock for ROM exercises
- If meniscal repair limit flexion to 90° for first 4 weeks

**Weightbearing (WB) Status**

- Full WB as tolerated with crutches and brace locked in full extension
- Week 3 depending on quad control may unlock brace for ambulation
- If meniscal repair or microfracture nonweightbearing for 4 weeks
- Meniscal repairs: 0-2 weeks partial WB in brace locked in extension with crutches. 2-4 weeks full WB in brace locked in extension.

**Exercises**

- Continuous Passive Motion (CPM) machine—2 hour sessions, 3 times a day. Start at 45° and increase 10° or more per day. Goal is 90° or beyond in the 1<sup>st</sup> week
- Passive extension, heel props on a rolled towel
- Straight leg raises—done in brace locked in extension until quad strength prevents extension lag
- Begin closed kinetic chain exercises
- Hip clams
- Wall slides—lie on your back with the operative foot on the wall and allow the foot to slide down the wall by bending the knee, can use other leg to apply downward pressure
- Heel slides—use your good leg to pull the operative heel towards the buttocks, flexing the knee. Hold for 5 seconds and then slide heel downward
- Partial squats
- Passive flexion to 90°--sit on rolling chair and let knee bend under gravity or roll forward to 90°. Can also assist with other leg
- Isometric quad/hamstring sets, hip abduction and adduction
- Patellar mobilization
- Prone hangs—lie face down on a bed with legs hanging off the edge to allow full extension
- Ankle ROM and gastroc/soleus stretching with tubing/therabands
- Straight leg raises while bridging on a swiss ball (after 2 weeks post-op)
- Triplane mini lunge (after 2 weeks post-op)

## **Phase 2: 4-8 weeks**

### **Goals**

- Protect graft
- Normalize gait
- Normalize ROM maintain extension and progress flexion to 125°-130°
- No swelling
- Progress strength
- Increase proprioception and neuromuscular control of knee extensors
- Initiate cardiovascular conditioning

### **Brace**

- May wean off crutches then from TROM brace when demonstrate good quad control

### **Weightbearing (WB)**

- Full WB, wean from crutches with normal gait

### **Exercises**

- Stationary bike, Stairmaster: slow with low resistance, elliptical, treadmill walking
- Resistance band side step
- Swiss ball: hamstring curl, squats, side lunges, plank, push-ups feet on swiss ball
- Cone reaches

## **Phase 3: 8-16 weeks (2-4 months)**

### **Goals**

- Protect graft
- Progress strength, endurance and proprioception
- Improve balance
- Introduce technique training

### **Brace**

- Hinged knee brace for stability, swelling and strength progression if indicated

### **Exercises**

- Leg press
- Low level plyometrics
- Swiss ball prone rotations
- Closed and open kinetic chain knee extension
- Stationary bike, Stairmaster, elliptical: increase resistance
- Treadmill walking
- Lumbopelvic and core strengthening, balance, proprioceptive training

## **Phase 4: 16-22 weeks (4-6 months)**

### **Goals**

- Maximize strength and endurance
- Initiate jogging
- Improve balance, power and technique
- Begin agility training—late phase

### **Exercises**

- Jogging progression
- Tri plane plyometrics
- Rotation to overhead lift
- Progress technique drills or sport specific drills
- Jump rope
- Agility training

## **Phase 5: 22 weeks plus (6 months)**

### **Goals**

- Return to full sports

### **Brace**

- Functional ACL brace for contact sports if indicated

### **Exercises**

- Sport specific drills
- Multi plane dynamic activities
- Ladders, figure 8's, pro agility
- Progress running and cardiovascular exercises