

## ACL Reconstruction Rehabilitation Guidelines

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### Phase I (Weeks 0-4)

#### Goals/Clinical Milestones

- Control pain, edema/effusion
- Protect reconstructed knee
- ROM recovery: full extension, flexion to 110°
- Counter quad inhibition
- Normalize gait

#### Interventions

- R.I.C.E., cryocuff
- Gait training; ambulate WBAT with brace locked in extension
  - Wean crutches when full weight-bearing tolerated
- Neuromuscular electric stimulation (NMES) at 0° => 60° knee flexion
- CPM 4hrs/day & P/AAROM => stationary bike progression
- **Regain/maintain terminal extension**
  - Do not place anything under the knee
  - Sleep with brace in extension
  - Perform quad sets, prone hang
- Patellar mobilizations, scar massage
- Hip strengthening in all directions (SLR with brace in extension if lag present)
- Initiate strengthening
  - Bilateral leg press, step ups, hamstring curls, calf raises
- Flexibility exercises: hamstrings, gastroc/soleus, ITB, hip flexors

### Phase II (Weeks 5-16)

#### Goals/Clinical Milestones

- Full ROM
- Control edema/effusion
- Progressive strengthening
- Normalize knee kinematics in functional activities
- Jogging with symmetric step pattern

#### Interventions

- Gait training; D/C brace for ambulation if SLR w/o lag
- Stairmaster, elliptical
- Leg press bilateral, eccentric, unilateral, then plyometrics
- Hamstrings prone, seated, single deadlifts
- Balance bilateral, unilateral, various surfaces, perturbations
- Functional training
  - Step ups, step downs, lateral stepping, single leg squats
- Start jogging straight ahead (wk 12-16)
- Jump progression (wk 12-16)
- Continue hip strengthening and flexibility exercises

## **Phase III (Weeks 17-24)**

### **Goals/Clinical Milestones**

- Normalize knee kinematics in high stress activities
- Progress sports-specific movements
- Build confidence in knee

### **Interventions**

- Continue progressive strengthening
- Agility training
  - Lateral shuffles, agility ladder, box drills, T-drills
- Plyometric training
  - Jump ups/downs, tuck jumps, reactive jumping
  - Single leg hop ups/downs

## **Return to Sport Phase (Week 24-)**

### **Criteria for Return to Sport**

- Functional tests
  - Tuck jump
    - Look at symmetry, peak thigh height, LE alignment in landing, foot placement, trunk position
  - Hop tests (<20% deficit)
  - T-drill for time
- Isokinetic knee extension/flexion test (<20% deficit)
- KT-1000
- Confidence in knee during sports-specific movements