



## PHYSICAL THERAPY SECTION

### ACL RECONSTRUCTION – HAMSTRING AUTOGRAFT

*Revised November 2016*

*Adapted from William Beaumont Army Medical Center*

#### **Post-op Days 1 – 14**

- Dressing – POD 1: Debulk dressing, TED Hose in place
  - POD 2: Change dressing, keep wound covered, continue TED Hose
  - POD 7-10: Sutures out, D/C TED Hose when effusion resolved
- Brace x 6 weeks – Locked in extension for ambulation
  - Open to available range when pt has good quad control (no extensor lag)
- Crutches – Partial weight bearing (PWB) in brace
- Patellar mobilization (teach patient)
- Calf pumping
- AAROM 0-90 degrees (passive extension, heel slides with towel assist)
- Passive extension with heel on bolster or prone hangs
- No active Hamstring exercises**
- Electrical stimulation in full extension with quad sets and SLR
- Quad sets
- Straight leg raise (SLR) x 4 directions on mat (in brace if poor quad control)
- Total Gym (level 3-5) – Mini squats 0-45 degrees
  - Passive flexion to 90 degrees max (push up with opposite leg)
- Leg press 0-45 degrees with light resistance (up to ¼ body weight)
- Stationary bike for range of motion – Complete cycle as able
- Ice Pack with knee in full extension after exercise

#### **Goals**

- Full passive extension
- Flexion to 90 degrees
- Good quad control

#### **Weeks 2 – 4**

- Brace x 6 weeks – Open to available range
- Crutches – PWB in brace
- Continue appropriate previous exercises and following ex without brace
- Scar massage when incision healed
- AAROM, AROM through full range as tolerated
- Co-contractions quads / HS
- SLR x 4 on mat – Add light ankle weights if quad control is maintained
- Total Gym – Progress levels and ROM of mini-squats as tolerated
- Leg press 0-90 degrees with light resistance (up to ¼ body weight)
- Hamstring curls – Carpet drags or rolling stool (closed chain)
- Double leg heel raises
- Stationary bike – Progressive resistance and time
- Stretches – Hamstring, Hip Flexors, ITB

#### **Goals**

- ROM 0-110 degrees
- No effusion
- No extensor lag

### **Weeks 4 – 6**

Brace x 6 weeks – Open to available range  
Crutches – weight bearing as tolerated (WBAT) in brace, D/C when gait is normal  
Continue appropriate previous exercises PROM, AAROM, AROM to regain full motion Standing  
SLR x 4 with light Theraband bilaterally Mini squats, Wall squats 0-45 degrees  
Leg press 0-90 degrees with resistance no more than ½ body weight  
Hamstring curls on weight machine with light resistance  
Forward, lateral and retro step downs in parallel bars  
– No knee flexion past 45 degrees (small step)  
Single leg heel raises  
Proprioceptive training – Single leg standing in parallel bars  
– Double leg BAPS for weight shift  
Treadmill – Forwards and backwards walking

#### **Goals**

Full ROM  
Normal Gait

### **Weeks 6 – 9**

D/C Brace  
Continue appropriate previous exercises  
Wall squats 0-90 degrees  
Leg press 0-90 degrees with resistance as tolerated  
Hamstring curls with resistance as tolerated  
Forward, lateral and retro step downs (medium to large step)  
Hip weight machine x 4 bilaterally  
Proprioceptive training – Single leg BAPS, ball toss and body blade  
Stationary bike – 15-20 minutes at a time, at least 70 rpm  
Treadmill – Walking progression program  
Elliptical trainer  
Pool therapy – Walking / running (no kicking)

**Goals** – Walk 2 miles at 15 min/mile pace

### **Weeks 9 – 12**

Continue appropriate previous exercises with progressive resistance  
Fitter  
Slide board  
Proprioceptive training – Grid exercises  
Functional activities – Figure 8s, gentle loops, large zigzags  
Stairmaster – Small steps  
Pool therapy – No swimming laps  
Quad stretches

**Goal** – Walk 3 miles at 15 min/mile pace

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### **Months 3 – 4**

Isokinetic testing at 180 and 300 degrees/sec – 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

**Goal** – Run 2 miles at easy pace

### **Months 4 – 6**

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

#### **Goals**

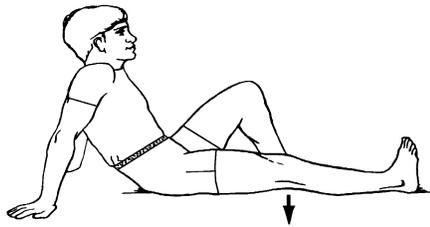
Return to all activities  
Pass APFT at 6 months post-op

***No contact sports until 6 months post-op***

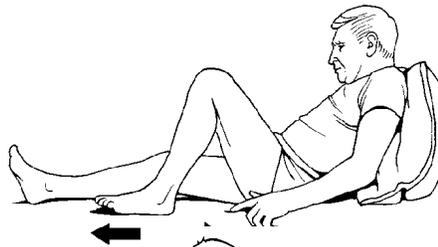
## Knee Post Op Phase 1

Perform exercises below frequently: 30 reps 3-5x a day

**Quad Isometrics**



**Heel Slides**



**Active Assisted Motion**

**Ice Position 15 minutes 2-3 x per day**

