



# Travis C. Burns, MD

Sports Medicine and Shoulder Reconstruction  
Arthroscopic Shoulder, Hip, and Knee Surgery

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## KNEE REPLACEMENT THERAPY PROTOCOL

### General Guidelines

- Work to regain full extension immediately after surgery
- Knee flexion to at least 90 degrees immediately after surgery
- Ambulate with a walker or crutches and can put full weight on leg
- Crutches/Walker until patient can ambulate with normal gait

### Post-op Days 1 – 14

**Goals:** Full passive extension and flexion to 90 degrees, obtain good quad control

- POD 1-3: Use ice machine, keep wound covered, continue TED Hose
- POD 10-14: Sutures out, D/C TED Hose when swelling resolved
- Walker/Crutches for safety – weight bearing as tolerated (WBAT)

### **Therapy:**

Calf pumping  
AAROM 0-90 degrees  
Passive extension with heel on bolster  
Electrical stimulation in full extension with quad sets and SLR Quad sets, Co-contractions quads / Hamstring  
Straight leg raise (SLR) x 4 on mat (in brace if poor quad control)  
Mini squats – 0-45 degrees in parallel bars  
Weight shifts  
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 1/4 body weight)  
    Leg heel raises  
    Parallel bar ambulation – Forwards / backwards / lateral  
Stationary bike for ROM – Complete cycle as able  
Ice Pack with knee in full extension after exercise

### Weeks 2 – 6

**Goals:** ROM 0-130 degrees, Full passive extension

### **Therapy:**

Walker/Crutches – WBAT, D/C when gait is WNL  
Continue appropriate previous exercises  
Scar massage when incision healed

AAROM, AROM through full range as tolerated Electrical stimulation –  
Continue as needed  
SLR x 4 on mat – Add light ankle weights if quad control is maintained  
Wall squats – No knee flexion past 45 degrees  
Total Gym – Progress levels of Mini-squats, 0-45 degrees  
Leg Press 0-45 degrees with resistance no more than 1/2 body weight  
Forward, lateral and retro step downs in parallel bars  
Single leg heel raises  
Proprioceptive training – Single leg standing in parallel bars – Double leg  
BAPS for weight shift  
Stationary bike – Progressive resistance and time  
Treadmill – Forwards and backwards walking as appropriate for patient  
Stretches – Hamstring, Hip Flexors, ITB

### **Weeks 6-8**

**Goals:** Full ROM normal gait, DC walker/crutches

#### **Therapy:**

Continue appropriate previous exercises  
PROM, AAROM, AROM to regain full motion  
Standing SLR x 4 with Theraband bilaterally  
Mini squats, Wall squats 0-60 degrees – Progress to single leg  
Leg press 0-60 degrees with resistance no more than 1/2 body weight  
Forward, lateral and retro step downs 0-60 degrees (medium step)

### **Weeks 8-12**

**Goal:** Walk 1 mile at patients own pace

#### **Therapy:**

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 0-90 degrees (large step) Hip weight  
machine x 4 bilaterally  
Stationary bike – 15-20 minutes at a time  
Treadmill – Walking progression program

### **Months 3 – 6**

**Goals:** Return to all activities

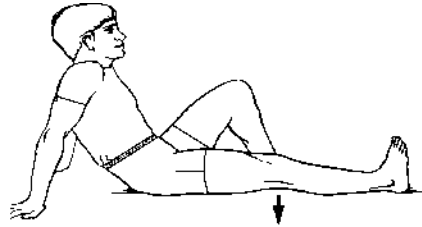
#### **Therapy:**

Continue appropriate previous exercises  
Ensure home exercise continues to full knee motion and strength  
Transition to home gym program

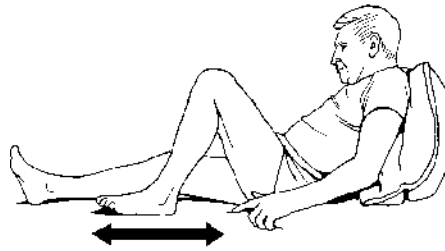
## Knee Post Op Phase 1

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

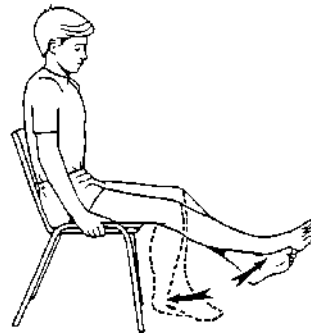
**Quad Isometrics**



**Heel Slides**



**Active Assisted Motion**



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

