

**Jeffrey Dean, MD
Orthopedic Surgeon**

**ACL REVISION (Rehabilitative Guidelines)
Revised January 2003**

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 – locked in extension for ambulation
– open to available range when pt has good quad control (no extensor lag)
Crutches – PWB (D/C at 6 weeks if gait is WNL)
Patellar mobilization (teach patient)
Calf pumping
PEAF (passive extension-active flexion), heel slides, 0-90 degrees
AAROM 0-90 degrees
Stationary bike for ROM – complete cycle as able
Passive extension with heel on bolster or prone hangs
Electrical stimulation in full extension with quad sets and SLR
Quad sets, Co-contractions quads/hams
SLR x 4 (parallel bars if poor quad control)
Total Gym to start closed chain activity
– Mini squats (level 3-5) – No flexion > 45 degrees
– Passive flexion to 90 degrees (push up with opposite leg)
Leg press with light resistance
Hamstring curls – standing
Double leg heel raises
Ice Pack with knee in full extension after exercise

Goals

Full passive extension
Flexion to 90 degrees
Good quad control

**Jeffrey Dean, MD
Orthopedic Surgeon**

**ACL REVISION (Rehabilitative Guidelines)
Revised January 2003**

Weeks 2 – 4

Brace – open to available range
Crutches – PWB
Continue appropriate previous exercises
Scar massage when incision healed
PROM, AAROM, AROM as tolerated
SLR x 4 on mat – add light ankle weights if quad control is maintained
Total Gym – progress levels of mini-squats as tolerated
Leg press with light resistance – flexion no greater than 75 degrees
Hamstring curls – closed chain (carpet drags or rolling stool)
Stretches – HS, AT, Hip Flexors, ITB
Stationary bike

Goals

ROM 0-110 degrees
No effusion
No extensor lag

Weeks 4 – 6

Brace – open to available range (D/C at 8 weeks)
Crutches – PWB
Continue appropriate previous exercises
PROM, AROM with goal of 130 degrees by 6 weeks
Mini squats, weight shifts – in parallel bars
Leg press with resistance no more than $\frac{1}{2}$ body weight
– Flexion no greater than 75 degrees
Hamstring curls – open chain with light resistance
Stationary bike for progressive resistance and time
Pool therapy – walking and jogging (no kicking)

Goals- Full ROM, Normal gait

**Jeffrey Dean, MD
Orthopedic Surgeon**

ACL REVISION (Rehabilitative Guidelines)
Revised January 2003

Weeks 6 – 9

D/C brace at 8 weeks
Crutches – WBAT, D/C when gait is WNL
Continue appropriate previous exercises
Partial wall squats – No knee flexion past 45 degrees
Forward, lateral, and retro step downs in parallel bars
 – No knee flexion past 45 degrees
Single leg heel raises
Proprioceptive training – single leg standing in parallel bars
 – Double leg BAPS for weight shift
 – progress to single leg BAPS, ball toss, and body blade
Standing SLR x 4 with Theraband bilaterally
Hamstring curls – closed/open chain
Treadmill – backwards and forwards walking
 – Forward walking approaching 15 min/mile pace
Elliptical trainer

Goals

Full ROM if not already achieved
Walk 2 miles at 15 min/mile pace

**Jeffrey Dean, MD
Orthopedic Surgeon**

**ACL REVISION (Rehabilitative Guidelines)
Revised January 2003**

Weeks 9 – 12

Continue appropriate previous exercises with progressive resistance
Functional activities – Fitter, slide board, figure 8s, gentle loops, large zigzags
Treadmill – continue walking program
Pool therapy – unrestricted

Goal – Walk 3 miles at 15 min/mile pace

Months 3 – 4

Continue appropriate previous exercises
Agility drills / Plyometrics
May begin incorporating open chain strengthening as tolerated
Treadmill – Running progression program
Pool therapy – Begin swimming laps

Goal – Run 2 miles at normal pace

Months 4 – 6

Home/gym program
Continue strengthening, stretching, closed chain, proprioceptive training, and running/agility programs
Sit-up progression
Quad stretches
Functional test at 6 months to clear for sports and discharge –
Must have 90% of opposite leg

Goals- Return to all activities, Pass APFT 6 months post op

No contact sports until 6 months post op

**Jeffrey Dean, MD
Orthopedic Surgeon**

ACL REVISION (Rehabilitative Guidelines)
Revised January 2003

References:

1. Jenkins WL, Munns SW, Loudon J. Knee Joint Accessory Motion Following Anterior Cruciate Ligament Allograft Reconstruction: A Preliminary Report. JOSPT Vol 28, No 1, July 1998
2. Maigne RE, Noyes FR. Rehabilitation of the Allograft Reconstruction. JOSPT, Vol 15, No 6, June 1992
3. Meszler D, Manal TJ, Synder-Mackler L. Rehabilitation after revision anterior cruciate ligament reconstruction: practice guidelines and procedure-modified, criterion-based progression, 111-116
4. Shino K, Inoue M, Horibe S, Nagano J, Ono K. Maturation of Allograft Tendons Transplanted Into the Knee. The Journal of Bone and Joint Surgery. Vol 70-B, No 4, August 1988