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ACL RECONSTRUCTION – HAMSTRING AUTO/ALLOGRAFT

General Guidelines

- Obtain full extension within 2 weeks after surgery
- No active hamstring exercises for 6 weeks after surgery if hamstring autograft
- Crutches until patient can ambulate with normal gait (around 2 weeks typically)
- Long leg brace locked in extension until patient can demonstrate quad control (around 3-4 weeks typically). Brace can then be unlocked during ambulation and continued for 6 weeks after surgery
- Run straight ahead on even ground at 3 months
- Return to sports at 6-9 months

Post-op Days 1 – 14

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

- POD 2: Change dressing, keep wound covered, continue TED Hose
- POD 10-14: Sutures out, D/C TED Hose when effusion resolved
- Brace – Locked in extension for ambulation until quad control established (generally 2-4 weeks). Open to available range when pt has good quad control (no extensor lag)
- Crutches – weight bearing as tolerated (WBAT) in brace (D/C crutches when gait is normal)

Therapy:

Patellar mobilization, Calf pumping

AAROM 0-90 degrees (passive extension, active flexion, heel slides)

No active Hamstring exercises

Passive extension with heel on bolster or prone hangs

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 – 4

Goals: ROM 0-110 degrees No effusion, No extensor lag

Therapy:

Brace x 6 weeks – Open to available range
Crutches – WBAT, D/C when gait is WNL
Continue appropriate previous exercises and following ex without brace
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
– 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
Stationary bike – Progressive resistance and time
Treadmill – Forwards and backwards walking
Stretches – Hamstring, Hip Flexors, ITB

Weeks 4 – 6

Goals: Full ROM normal gait, DC Brace at 6 weeks

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)
Proprioceptive training – Single leg BAPS, ball toss and body blade Elliptical
trainer
Pool therapy – Walking / running (no kicking)

Weeks 6 – 9

Goal: Walk 2 miles at 15 min/mile pace

Therapy:

Continue appropriate previous exercises
Begin active hamstring exercises with curls on weight machine
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
Proprioceptive training – Grid exercises
Stationary bike – 15-20 minutes at a time, at least 70 rpm Treadmill – Walking progression program

Weeks 9 – 12

Goal: Walk 3 miles at 15 min/mile pace

Therapy:

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

Months 3 – 4

Goal: Run 2 miles at easy pace

Therapy:

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

Months 4 – 6

Goals: Return to all activities, no contact sports until 6 months post-op

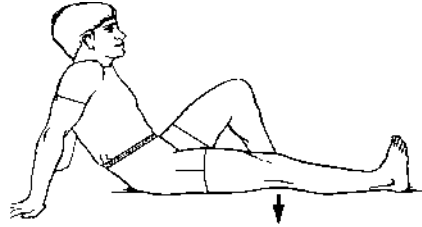
Therapy:

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

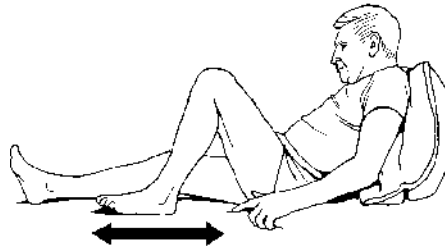
Knee Post Op Phase 1

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**

