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ACL RECONSTRUCTION: BONE-TENDON BONE AUTO/ALLOGRAFT POST-SURGICAL REHABILITATION PROTOCOL

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 4 weeks – Locked in extension for ambulation
 - Open to available range when pt has good quad control (no extensor lag)
- Crutches – weight bearing as tolerated (WBAT) in brace (D/C when gait is normal – generally at 2 weeks)
- Patellar mobilization (teach patient)
- Calf pumping
- AAROM 0-90 degrees (passive extension, active flexion, heel slides)
- 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 ¼ body weight)
- Hamstring curls – Carpet drags or rolling stool (closed chain)
- Double 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

GOALS

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

Weeks 2 - 4

- Brace x 4 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 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
- Stationary bike – Progressive resistance and time
- Treadmill – Forwards and backwards walking
- Stretches – Hamstring, Hip Flexors, ITB

GOALS

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

WEEKS 4 - 6

- D/C Brace
- 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 ½ 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)

GOALS

- Full ROM
- Normal gait

WEEKS 6 - 9

- 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
- Proprioceptive training – Grid exercises
- Stationary bike – 15-20 minutes at a time, at least 70 rpm
- Treadmill – Walking progression program

GOAL

- Walk 2 miles at 15 min/mile pace

WEEKS 9 - 12

- Continue appropriate previous exercises with progressive resistance
- Fitter
- Slide board
- 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

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

GOAL

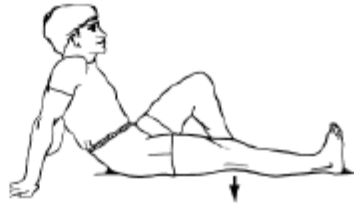
- Return to all activities

****NO CONTACT SPORTS UNTIL 6 MONTHS POST-OP****

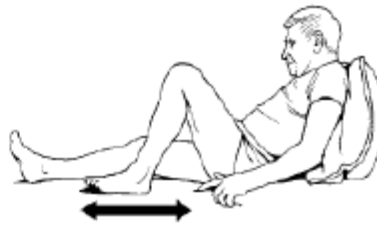
KNEE POST-OP PHASE I

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



ADAPTED FROM:

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