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Arthroscopic ACL Reconstruction Rehabilitation Protocol

Pre-Op

- **Physical Therapy 2 weeks prior to surgery, insure full ROM, increase quad/hamstring**
- **strength, normalize gait**
- **Schedule a doctor visit for 7 – 10 days after surgery**
- **Schedule a PT visit for 7 – 10 days after surgery**

Week 1 - Ankle pumps every hour

- **Post –op brace to maintain full extension.**
- **Quad sets & SLR (Brace on) with no lag**
- **Weight Bearing as tolerated (WBAT) with Bledsoe Brace locked in extension and**
- **crutches at all times for protection**
- **Ice or Cryocuff Unit on knee for 20 – 30 minutes every hour**
- **Pillow or towel roll under heel passive knee extension exercise**

Week 2

- **No knee flexion past 115°**
- **Supervised PT – 2 to 3 times a week**
- **Continue SLR's in brace, quad isometric sets, ankle pumps**
- **No weight bearing with knee in flexed position, WBAT with brace on for ambulation**
- **Passive knee extension with towel roll under heel (essential to gain full extension)**
- **Patellar mobilization exercises**
- **Brace locked in full extension for ambulation and sleeping, and may unlock for sitting.**
- **Continue to use crutches for ambulation.**
- **Remove brace for HEP, except SLR**
- **Flexion exercises seated AAROM**
- **Hamstring and calf stretching**
- **Hip strengthening**

Week 3

- **Continue with above exercises/ice treatments**
- **No weight bearing with knee in flexed position, WBAT**
- **Perform scar message aggressively**
- **AAROM (using good leg to assist) exercises (4-5x/ day)**
- **Emphasis full passive extension**
- **Progressive SLR program for quad strength with brace off if no extensor lag (otherwise keep brace on and locked) – start with 1 lb, progress 1-2 lbs per week**
- **Theraband standing terminal knee extension**
- **Hamstring PREs**
- **Heel raises with brace on**

Week 4

- **No restrictions on range of motion**
- **No weight bearing with knee in flexed position, WBAT with brace locked in full extension and crutches for protection.**
- **Continue ROM stretching and overpressure into extension**
- **Heel raises**
- **SLR's – in all planes with weight**

Week 5

- **Continue above exercises**

- **May unlock brace to 70 degrees for ambulation if able to do SLR 10x with no lag (with brace off)**
- **WBAT.**
- **Self ROM 4-5x/day using other leg to provide ROM, emphasis on maintaining 0 deg passive extension**
- **Advance ROM as tolerated**
- **Isotonic leg press (0 – 90 degrees) if ROM allows**
- **Regular stationary bike if Flexion up to 115, use short crank or high seat if not**
- **Lateral step out with therabands**

Week 6

- **Continue above exercises**
- **May open the brace from 0-100 degrees for ambulation**
- **Can increase ROM as tolerated with no restrictions**

Week 7-9

- **Advance ROM**
- **May D/C brace when walking with brace unlocked and no limp**
- **Retro treadmill progressive inclines**
- **Half squats (0-40 degrees)**
- **Add ball squats**
- **Goal: 0 to 115 degrees, walking with no limp**
- **Brisk walking**
- **Stair master machine**
- **Increase resistance on stationary bike**
- **Sportcord (bungee) walking**
- **Start slide board**
- **8 inch step ups**
- **Initiate retro treadmill with 3% incline (for quad control)**
- **4-6 inch step downs**

Week 10

- **Begin resistance for open chain knee extension**
- **Progress balance and board throws**
- **Bike outdoors, level surfaces only**
- **Plyometric leg press**
- **Jump down's (double stance landing)**

Week 11-24

- **If full ROM, quad strength > 80% contralateral side, functional hop test >85%**
- **contralateral side, satisfactory clinical exam and MD approval:**
- **Progress to home program for running. Progress to hops, jumps, cuts and sports specific**
- **drills. Begin to wean from supervised therapy.**
- **Quadriceps Isotonics – Full arc for closed chain. Open chain: 90-40 degrees.**
- **May begin running program at 18 weeks**

6 months

- **Criteria to return to sports:**
    - **Full Active and Passive ROM**
    - **Quadriceps >90% contralateral side**
    - **Satisfactory clinical exam**
    - **Functional hop test > 90% contralateral side**
    - **Completion of ACL running program**
    - **Agility Drills**

This is strictly an outline of most of the major exercises that we would like to incorporate into the ACL rehabilitation. Not all exercises need to be done. Two main goals are that appropriate progress is made on a weekly basis, and that communication exists between patient, therapist and doctor.

****Please send or fax progress notes.**

Thank You!

Robert Hansen, MD