



## Complex Meniscus Repair Protocol

\* Radial, root, or complex repairs

### I) Weeks 0-6:

- Restrictions:
  - 1) Immobilizer must be on at all times when walking.
  - 2) Touch weight bearing (TWB) with the knee in full extension using crutches
  - 3) No knee flexion beyond 90 degrees
  
- Goals:
  - 1) Active ROM: 0-90 degree maximum.
  - 2) Reduce muscle atrophy.
  - 3) Reduce swelling.
  - 4) Quad Activation
  
- Anti-edema
  - 1) Ice/Cryotherapy multiple times during the day
  - 2) Limb elevation
  - 3) Compression with TubiGrip/TEDS
  - 4) Ankle pumps while icing.
  
- Therapy/Exercises:
  - 1) ROM (0-90 degrees maximum):
    - a. Long sitting heel slides.
    - b. Hook lying heel slides.
    - c. Supine wall slides for knee flexion.
    - d. Prone knee flexion.
    - e. Supine knee extension with towel under ankle.

- f. Prone hangs.
- g. Towel calf stretches.
- 2) Core exercises:
  - a. Crunches.
  - b. Oblique crunches.
  - c. Prone superman.
- 3) Hip and lower extremity exercises:
  - a. Belt abduction isometrics.
  - b. Pillow adductor squeezes.
  - c. Advance to straight leg raises as able.
  - d. Gluteal sets.
  - e. Quad sets.
  - f. Hamstring sets.
  - g. Ankle DF and PF isometrics against crutch advancing to Theraband as comfort improves.

## II) Weeks 7 to 8:

- Restrictions:
  - 1) D/C immobilizer
  - 2) Progress to weight bearing as tolerated (wean crutches)
  - 3) Avoid loading past 90 degrees of flexion—educate patient on chair mechanics
- Goals:
  - 1) Reduce effusion
  - 2) Full ROM
  - 3) Minimize hip, core and lower extremity atrophy
- Therapy/Exercises:
  - 1) ROM exercises:
    - a. Continue with previous ROM exercises.
  - 2) Gait training:
    - a. Weight shifts.
      - (a) Side to side.
      - (b) Forwards and back.
    - b. Gait mechanics training.
      - (a) High knees.
      - (b) Big steps.
      - (c) Side shuffle walking speed.
      - (d) Single leg stance.
        - (i) Advance to cushion, ½ roll, ball catches.

- 3) Core exercise examples:
  - a. Prone plank.
  - b. Side plank.
  - c. Upper back six pack on ball.
  - d. Supine ball rotations.
  - e. Side crunch on ball.
  
- 4) Hip and lower extremity exercise examples:
  - a. 90 degree flexion limit.
    - (a) Isometric leg press
    - (b) Bridging as able.
    - (c) Standing hip Theraband in all directions.
    - (d) Step up.
    - (e) Mini squat.

### III) Weeks 9 to 16:

- Restrictions:
  - 1) No loading at flexion angles greater than 90 degrees
  
- Goals:
  - 1) Full active range of motion
  - 2) No effusion
  - 3) Improved core and hip strength and endurance
  
- Outcome measures at final evaluation:
  - 1) LEFS: Lower extremity functional scale.
  - 2) PSFS: Patient specific functional scale.
  
- Therapy/Exercises: (No loading past 90 degrees of knee flexion).
  - 1) Weight bearing exercises:
    - a. Maximize proprioceptive training:
      - (a) Cushion work.
      - (b) Bosu ball.
      - (c) ½ roll.
      - (d) Sport specific:
        - (i) Ball catches.
        - (ii) Ball throws.
        - (iii) Stick handling.
  
  - 2) Core work examples:

- a. Upper back six pack on ball.
  - b. Prone walk out on ball.
  - c. Side crunch on ball.
  - d. Continued plank work.
  - e. Back bridge single arm dumbbell fly.
  - f. Bridge.
  - g. Quadrupled hip extension.
  - h. Quadrupled bird dog.
- 3) Hip work/lower extremity work examples:
- a. Continued standing hip Theraband in all planes.
  - b. Seated hip IR and ER against Theraband.
  - c. 85 degree knee flexion limit
    - (a) Step ups with dumbbells.
    - (b) Mini lunge with dumbbells.
      - (i) Two dumbbells.
      - (ii) One dumbbell in either hand.
    - (c) Sumo squat with weight elevated on boxes.
    - (d) Wall squat with tubing valgus stress.
    - (e) Hockey side lunge.
    - (f) Limited range dead lift.
- 4) Non-impact aerobic conditioning:
- a. When walking with normal gait mechanics.
  - b. Build up to 30 minutes of non-impact conditioning.
  - c. Knee flexion angles do not exceed 90 degrees.
    - (a) Elliptical trainer.
    - (b) Stairmaster.
    - (c) Standard stationary bike.

**IV) 4-6 months:**

- 1) Initiation of return to sport program.
- 2) Outcome tools
  - a. LEFS: Lower Extremity Functional Scale
  - b. PSFS: Patient Specific Functional Scale