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SPORTS MEDICINE SURGERY – HIP ARTHROSCOPY
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REHABILITATION PROTOCOL

Anteriormedialization (AMZ)
Tibial Tubercle Osteotomy/Distal Realignment

Guidelines/Precautions
- Partial weightbearing for the first 6 weeks

Phase I (1 – 5 days post-op)
- Wound care: Observe for signs of infection. OK to remove dressing on post-operative day 5 and begin showering. Keep covered until day 5. Cover incision with gauze and ace wrap.
- Modalities**:** prn for pain and inflammation (ice, IFC)
- Brace
  - Locked in full extension for all activities except therapeutic exercises and CPM use
  - Locked in full extension for sleeping
- Gait
  - 25% weightbearing with crutches
- ROM
  - 0 – 30 degrees of flexion
  - Ankle AROM
- Strengthening: none

Phase II (5 days – 4 weeks post-op)
- Wound care: Observe for signs of infection. OK to remove dressing on post-operative day 5 and begin showering. Keep covered until day 5. Cover incision with gauze and ace wrap.
- Modalities: Modalities PRN for pain and inflammation (ice, IFC)
- Brace
  - 0-4 weeks locked in full extension for all activities except therapeutic exercises
  - Locked in full extension for sleeping
- Gait

- 25% weightbearing with two crutches
- ROM
  - 0 – 2 weeks: 0 – 30 degrees of flexion
  - 2 – 4 weeks: 0 – 60 degrees of flexion
  - 4 – 6 weeks: 0 - 90 degrees of flexion
- Strengthening
  - Quad sets with biofeedback and E-stim for VMO. Goal of regaining active quad and VMO control by end of 6 weeks.
  - Heel slides to recommended ROM, SLR in four planes with brace locked in full extension
  - Resisted ankle ROM with Theraband
  - Patellar mobilization (begin as tolerated)

Phase III (4 – 10 weeks post-op)

4 weeks to 6 weeks:

- Brace: Removed for sleeping, locked in full extension for ambulation
- Gait: 25% weightbearing
- ROM: 0 – 90 degrees of flexion
- Strengthening: continue same as phase II

6 weeks to 8 weeks:

- Brace: Discontinue use for sleeping, unlock for ambulation as allowed by physician
- Gait: WBAT and wean from crutches, normalize gait
- ROM: Increase flexion gradually to normal range for patient
- Strengthening:
  - Continue NMES as needed
  - Progress to weight-bearing gastroc, soleus stretching
  - Closed chain balance exercises – avoid deep knee squatting greater than 90 degrees
  - Stationary bike, low resistance, high-seat
  - Wall slides progressing to mini-squats, 0-45 degrees of flexion

8 weeks to 10 weeks

- Brace: D/C
- Gait: May D/C crutches if no extension lag is present, patient is able to achieve full extension, and gait pattern is normalized with one crutch.
- Strengthening:
  - Should be able to demonstrate SLR without extension lag
  - May begin closed chain strengthening including step-ups (begin at 2 inch step)
  - Moderate resistance for stationary bike
  - Four way resisted hip strengthening
  - Leg press for 0-45 degrees of flexion
  - Swimming and/or stairmaster for endurance
  - Toe raises, hamstring curls and proprioceptive exercises
  - Treadmill walking
  - Flexibility exercises continued

Phase IV (10+ weeks post-op)

- Criteria
  - Clearance from physician to begin more concentrated closed-kinetic chain exercises and resume full or partial activity level
  - At least 0 – 115 degrees AROM with no swelling and complete voluntary contraction of quad
  - No evidence of patellar instability
  - No soft tissue complaints
- Strengthening

    - Progression of closed-kinetic chain activities including partial squats (60 degrees), leg press, forward and lateral lunges, lateral step-ups, bicycle and /or stepper.
    - Functional progression, sport specific activities
- Functional testing: Performance to < 25% deficit compared to non-surgical side by D/C

Adapted from:

1) Brotzman SB, Wilk KE. Clinical Orthopedic Rehabilitation. 2nd Ed. Philadelphia: Mosby; 2003
2) Wilk KE, Reinold MM, Andrews, JR. Rehabilitation Following Lateral Retinacular Release and Medial Retinacular Thermal Shrinkage/Plication. Winchester, MA: Advanced Continuing Education Institute, 2004.