



## ACI Patella/Trochlea Without TTT

Ryan W. Hess, MD  
Dr. Hess Care Coordinator Phone: 763-302-2223  
Fax: 763-302-2401

- Phase I – Immediate Post Surgical Phase (Week 0-2)
  - Goals
    - Protection of post-surgical knee
    - Gradually increase ROM
    - Decrease pain and inflammation
    - Prevent muscular inhibition
    - Restore leg control
  - Cryotherapy for pain/inflammation
    - Ice 15-20 minutes every hour
  - Sleeping
    - Sleep in brace/knee immobilizer if prescribed (usually in patellofemoral lesions only)
  - Weight Bearing (may be modified in certain situations)
    - Patellofemoral lesions
      - Hinged brace locked in extension for ambulation x 2 weeks
      - WBAT in brace
  - ROM
    - 0-30 degrees
    - Prone hangs
    - Knee extension on a bolster
    - Supine wall slides
    - CPM machine- 6 hrs/day, 0-30 degrees
  - Muscle Retraining
    - Quadriceps isometrics, SLR
  - Patellar mobilizations
    - Avoid in patellofemoral lesions for first 4 weeks
  - Note: ROM exercises should be carried out frequently throughout the day with several repetitions in order to remodel the developing knee fibrocartilage. The goal for the first 6 weeks is 4-8 hours of ROM exercises per day
- Phase II – Protection Phase (Week 2-6)
  - Goals
    - Allow healing of soft tissue/bone
    - Do not overstress healing tissue

- Gradually increase ROM
      - Progression based on swelling/inflammation and guidelines below
    - Decrease pain and inflammation
  - Brace
    - Continue brace (patellofemoral lesions)
    - May unlock when ambulating after 2 weeks
    - Daytime use only after 2 weeks
  - Weight bearing
    - Patellofemoral lesions
      - WBAT with brace unlocked after 2 weeks
  - ROM guidelines
    - CPM 0-60 degrees week 2-4
    - CPM 0-90 degrees week 4-6
    - PROM/AAROM to tolerance
  - E-stim to quads
  - Quad isometrics
  - SLR
  - May begin pool activity at week 5 in chest-deep water
- Phase III – Intermediate Phase (Week 6-12)
  - Goals
    - Gradual improvement in ROM
    - Eliminate swelling
    - Normalize gait
  - Criteria to progress to Phase III
    - 6 weeks post-op
    - No effusion
    - Full extension
  - Precautions
    - Avoid post-activity swelling
    - Avoid loading knee at deep flexion angles
    - No impact activities until 12 weeks post-op
  - Weight bearing
    - WBAT for all lesions
  - ROM
    - Full motion as tolerated
  - Continue quadriceps strengthening
  - Continue above exercises
  - Gait drills
  - Stationary bicycle
  - Hip/core strengthening
  - Closed chain quad exercises at <60 degrees flexion

- Phase IV –Strengthening Phase (Week 12-20)
  - Goals
    - Maintain full ROM
    - Improve limb strength and endurance
    - Gradual return to functional activities
  - Criteria to progress to Phase IV
    - Full, non-painful ROM
    - Absence of swelling/inflammation
    - Good control of affected limb
    - Normal gait on all surfaces
    - Single-leg balance >15 seconds
  - Precautions
    - Post-activity soreness should resolve in <24 hours
    - Avoid knee pain with impact
  - Continue above exercises
  - Impact control exercises
    - Begin 2 feet to 2 feet, progress to 1 foot to other foot, then 1 foot to same foot
  - Movement control exercises
    - Begin with single plane activities and progress
  - Sport specific activities when cleared by Dr. Hess