

POST OPERATIVE KNEE ARTHROSCOPY (Partial Meniscectomy/Chondroplasty/Synovectomy)

This five-phased program approach can be utilized for both conservative and surgical patellofemoral clients. This systematic approach allows specific goals and criteria to be met; once goals and criteria are attained, the rehabilitation process can progress safely.

Ultimate Goal of Program

1. Improve Functional Status
2. Normalize Biomechanical Forces
3. Improve Strength/Power/Endurance
4. Decrease Pain/Inflammatory Status

Acute Phase (usually post-op days 1-5): Maximal Protection

Goals:

1. Relieve pain, swelling and inflammation
 2. Retard muscle atrophy
 3. Increase ROM and flexibility
- FWB, unless otherwise specified by physician
 - Ice, Compressions, Elevation
 - Strengthening exercises
 - Quadriceps setting and multi-angle isometrics (non-painful) 90o, 75o, 60o, 45o
 - Straight leg raises (Hip abduction not done with lateral compression syndrome)
 - Gentle standing or prone hamstring curls as tolerated
 - Electrical Stimulation if needed (EMS, TNS, HVGD, Biofeedback)
 - Flexibility, LE stretches (especially hamstrings/gastroc and also ITB if needed)
 - ROM exercises- Heel slides to tolerance, prone/supine "knee hang" for extension
 - Patient education regarding activities, pathomechanics
 - **Avoidance Program**
 - Squatting, Kneeling, Excessive Knee Flexion, Stairs

Sub-acute Phase (usually 1 to 2 weeks post-op): Moderate Protection

Progress to phase two when:

1. Pain and swelling reduce
2. ROM is increased
3. Strong visible quadriceps contraction

Goals:

1. Increase muscle strength and ROM without exacerbation
 - Initiate weights for SLR (Hip abduction not done with lateral compression syndrome)
 - Initiate weights for short arc quadriceps exercises, non-painful ROM
 - Initiate mini-squats (0-30/40o) non-painful ROM
 - Bicycle (low resistance, seat high)
 - Continue isometrics, ROM, and flexibility exercises as needed
 - Continue ice therapy
 - **Avoidance program**
 - Squatting, Kneeling, Stairs

Chronic Phase (usually 2-4 weeks post-op): Minimal Protection

1. Progress to phase three when:
2. ROM and swelling WNL
3. Pain is minimal to none

Goal:

1. Achieve maximal strength and endurance
 - Continue SLR and other isotonic knee exercises
 - Continue mini-squats
 - Advance closed kinetic chain activities (leg press, shuttle)
 - Initiate proprioceptive exercises (unilateral balance, contra-kicks)
 - Emphasis on increased functional activities, (example: step-ups)
 - Cryotherapy post exercise
 - **Avoidance program**
 - Full Squatting, Kneeling, Painful ADL's

Maintenance Program

Patient is usually discharged from therapy at 4-6 weeks post-op.

Goal:

1. Continue strengthening without detrimental affects on patellofemoral joint
 - Continue flexibility daily (part of warm-up and cool down)
 - Continue HEP program 3 times per week
 - Endurance training is continued
 - Continue to be active (walking, swimming, pool running, possible biking)

Advanced Strengthening Phase

Patients with physical work requirements or a goal to return to high levels activities may remain in therapy for the advanced strengthening phase.

Goals:

1. Increase strength/increase power

Criteria for advanced strengthening phase:

1. Increase endurance
2. Full ROM
3. Increase neuromuscular control
4. Strength 5/5
5. Fast speed training
6. No episodes of giving way

Exercises:

4 Quad Program

1. Isotonic knee extension (100-140o)
2. 1/2 squats (gradually increase weight)
3. Progress Leg press
4. Increase height of step up

4 Endurance Program

1. Bicycle (30 mins or more)
2. Elliptical
3. Pool Running
4. Stairmaster

Balance/Agility Drills

Fast Speed Training

1. Exercise tubing (Breg)
2. Fast hamstring curls
3. Fast hip ext/flex

1. Breg Kat system
2. Balance board (single leg)
3. Unilat. Balance on unstable surface
4. Agility training (lateral shuffle, carioca, etc)

Return to Sport

Criteria to Participate:

1. full non-painful ROM
2. Proprioception test 95% of opposite leg
3. Isokinetic Test
4. 65% Quad Torque/BW ratio (180o/s)
5. 70-75% Hamstring/Quad ratio (180o/s)
6. 95% Work/BW ratio (180o/s)
7. Hop Test (optional)

Continue Strengthening Program:

- 4 Quad Program
- 4 Endurance Program
- Continue Balance/Agility Drills