

## Patellar Protection Program

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

Date of Surgery: \_\_\_\_\_

**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 can progress safely. Client compliance is critical.**

### Ultimate Goals of Program

- Improve functional status
- Normalize biomechanical forces
- Improve strength/power/endurance
- Decrease pain/inflammatory status

### ACUTE PHASE -MAXIMAL PROTECTION

- Goals:
  - Relieve pain and swelling
  - Decrease inflammation
  - Retard muscle atrophy
  - Maintain/increase flexibility
- Weight-bearing as tolerated, crutches may be indicated (normal gait)
- Ice, compression, elevation
- NSAIDs
- Strengthening exercises (isometric)
  - Quadriceps setting
  - Multiangle isometrics (non-painful) 90°, 75°, 60°, 45°, 30°
  - Straight leg raises (four planes of motion)
    - Hip adduction, hip flexion stressed
    - Hip abduction not done with lateral compression syndrome
- Electrical stimulation (EMS, TNS, HVGS, Biofeedback)
- Flexibility
  - LE stretches (especially hamstrings, gastroc)
- Intermittent passive motion
- Brace when indicated
- Patient education regarding activities, pathomechanics
- Avoidance Program

### SUBACUTE PHASE -MODERATE PROTECTION

- Criteria to Enter Subacute Phase:
  - Pain and swelling reduced
  - ROM increased
  - Strong visible quadriceps contraction
- Goals
  - Increase muscle strength without exacerbation
- Initiate weights for SLR
- Isotonics
  - Short arc (90-40°), non-crepitus ROM



- Initiate mini-squats (0-30/40°), non-painful ROM
- Bicycle (low resistance, seat high)
- Swimming
- Pool program for walking/running
- Continue isometrics
- Continue flexibility exercises
- Continue ice therapy, anti-inflammatory drugs
- Avoidance Program
  - Squatting, kneeling, stairs, excessive knee flexion
- Evaluate for orthotics



**CHRONIC PHASE –MINIMAL PROTECTION**

- **Criteria to Progress to Phase IV:**
  - ROM and swelling WNL
  - Pain is minimal to none
- Goals:
  - Achieve maximal strength & endurance
- Continue SLR
- Knee flexion isotonic with resistance is begun
- Variable resistance isotonic weight training (blocking painful ROM)
  - Continue shortened range knee extension isotonics
  - Continue mini-squats
- Emphasis on increased functional activities
- Ice therapy post-exercise
- Avoidance Program
  - Squatting, painful ADLs.

**MAINTENANCE PROGRAM**

- **Goal**
  - **Continue to strengthen without deleterious effect on patellofemoral joint**
- **Continue flexibility daily (part of warm-up and cool-down)**
- **Continue PRE Program 3 times a week**
- **Endurance training is continued**
- **Continue to be active (walking, swimming, pool running, possible biking)**

Comments:

Frequency: \_\_\_\_\_ times per week

Duration: \_\_\_\_\_ weeks

Signature: \_\_\_\_\_

Date: \_\_\_\_\_