



**Matthew Gotlin, MD**  
**159 East 74<sup>th</sup> Street**  
**New York, NY 10021**

**REHAB PROTOCOL: Patellofemoral Syndrome**

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

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

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

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

**This four-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)

159 East 74th Street  
New York, NY 10021  
Tel: 212-737-3301 Fax: 212-734-0407

2 Overhill Rd, Suite 310  
Scarsdale, NY 10583  
Tel: 914-725-6970 Fax: 914-725-6972

1600 Stewart Ave, Suite 100  
Westbury, NY 11590  
Tel: 516-243-8506 Fax: 212-734-0407

1870 Richmond Road  
Staten Island, NY 10306  
Tel: 718-285-7118 Fax: 212-734-0407

161 Atlantic Avenue  
Brooklyn, NY 11201  
Tel: 212-737-3301 Fax: 212-734-0407

200 West 13<sup>th</sup> Street, 6<sup>th</sup> Floor  
New York, NY 10077  
Tel: 212-737-3301 Fax: 212-734-0407

9226 Kennedy Boulevard  
North Bergen, NJ 07047  
Tel: 212-737-3301 Fax: 212-734-0407

- 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 isotonics 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:** \_\_\_\_\_

159 East 74th Street  
New York, NY 10021  
Tel: 212-737-3301 Fax: 212-734-0407

2 Overhill Rd, Suite 310  
Scarsdale, NY 10583  
Tel: 914-725-6970 Fax: 914-725-6972

1600 Stewart Ave, Suite 100  
Westbury, NY 11590  
Tel: 516-243-8506 Fax: 212-734-0407

1870 Richmond Road  
Staten Island, NY 10306  
Tel: 718-285-7118 Fax: 212-734-0407

161 Atlantic Avenue  
Brooklyn, NY 11201  
Tel: 212-737-3301 Fax: 212-734-0407

200 West 13<sup>th</sup> Street, 6<sup>th</sup> Floor  
New York, NY 10077  
Tel: 212-737-3301 Fax: 212-734-0407

9226 Kennedy Boulevard  
North Bergen, NJ 07047  
Tel: 212-737-3301 Fax: 212-734-0407