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Patella Femoral Syndrome (PFS) Rehab Protocol

Rehabilitation Guidelines

NOTE: Advancement to next phase is determined on individual clinical presentation and not time based.

Phase I – Acute Phase

Goals:

- Decrease effusion/pain
- Restore pain-free knee ROM
- Initiate volitional quadriceps contraction
- Begin pain-free flexibility program
- Minimize patellofemoral joint reaction forces

Flexibility

- PROM/AAROM to maintain ROM
- High-Crank Bicycle without resistance (avoid for compressive PFS)
- Flexibility exercises (hamstrings, quadriceps, iliotibial band, gastrocnemius)
- Lateral/medial retinacular stretching

Strengthening

- Multi-angle isometric quadriceps sets
- 4 way SLR
- Heel raises
- Hamstring curls
- Mini-squats
- Weight shifts M/L and diagonal

Additional Therapeutic Interventions

- Taping/bracing if indicated (avoid taping if compressive PFS)
- Orthotics- if indicated
- Electrical stimulation
- Cryotherapy

Phase II – Sub-Acute

Criteria for progression:

- No increase in swelling
- Minimal pain with strengthening
- No instability

Goals:

- Continue to minimize patellofemoral joint reaction forces
- Avoid intensification of symptoms
- Restore full symmetrical ROM
- Restore strength

Flexibility

- PROM/AAROM to maintain ROM
- High-Crank Bicycle with resistance to tolerance (avoid for compressive PFS)
- Flexibility exercises(hamstrings, quadriceps, adductors, iliotibial band, gastrocnemius)
- Lateral/medial retinacular stretching

Strengthening

- Continue above strengthening and flexibility exercises
- Continue strengthening program with PRE's (emphasize quadriceps, hip extensors, hip external rotators and hip abductors) slight flexion with resisted flexion SLR
- Continue multi-angle isometrics
- Closed-chain concentric and eccentric strengthening (shuttle, leg press, mini-squats, step-ups etc)
- 4-Way TB at ankle quick for time (3 x 20 sec.)
- Eccentric ER with lateral step-ups, limited ROM squats with weight and TB resisted ER
- Wobbleboard
- Retro cone walking

Additional Therapeutic Interventions

- Taping/bracing if indicated (avoid taping if compressive PFS)
- Orthotics- if indicated
- Electrical stimulation
- Cryotherapy

Phase III – Maintenance/Return to Activity Phase

Criteria for progression:

- No instability
- No swelling/tenderness
- Full pain-free ROM

Goal:

- Continue strengthening/flexibility program
- Proprioception training
- Endurance exercises
- Cross training (cycling, stairmaster, swimming)
- Initiate agility program, sport-specific activities

Flexibility

- PROM/AAROM to maintain ROM
- High-Crank Bicycle with resistance to tolerance (avoid for compressive PFS)
- Flexibility exercises(hamstrings, quadriceps, adductors, iliotibial band, gastrocnemius)
- Lateral/medial retinacular stretching

Strengthening

- Continue above strengthening and flexibility exercises
- Lunges with short angle
- Progress agility training
- Progress balance training with balance board
 - DL-SL
 - Add perturbation
 - Add ball toss

Additional Therapeutic Interventions

- Taping/bracing if indicated (avoid taping if compressive PFS)
- Orthotics- if indicated
- Electrical stimulation
- Cryotherapy